TIME & PLACE

PROPOSED MIXED USE DEVELOPMENT
66-68 RAMSGATE ROAD, RAMSGATE

ADENDUM TRAFFIC REPORT
RESPONDING TO MATTERS RAISED BY COUNCIL AND TfNSW

MAY 2022

COLSTON BUDD ROGERS & KAFES PTY LTD
ACN 002 334 296
Level 18 Tower A
Zenith Centre
821 Pacific Highway
CHATSWOOD NSW 2067

Email: cbrk@cbrk.com.au

REF: 11771/2

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1. INTRODUCTION

1.1. Colston Budd Rogers and Kafes (CBRK) have been engaged by Time & Place to prepare an addendum traffic report responding to traffic matters raised by Georges River Council and TfNSW with regards to the proposed mixed use development at 193-199 Rocky Point Road, 2-6 Targo Road and 66-68 Ramsgate Road, Ramsgate. We previously prepared the traffic report[1] to accompany the planning proposal for this development.

1.2. The traffic matters raised by Council are set out in a letter by WSP on behalf of Council dated 18 March 2022 and provided in Attachment A. The traffic matters raised by TfNSW are set out in its letter dated 1 February 2022 and provided in Attachment B. These traffic matters were discussed in a meeting with both authorities on 4 March 2022. A copy the minutes of the meeting on 4 March 2022 are provided in Attachment C.

1.3. To address the matters raised by Council and TfNSW an updated traffic assessment (including new traffic counts) has been undertaken. The SIDRA network modelling has been updated to include the recommendations by TfNSW. The updated SIDRA modelling also takes into account the removal of level 9 which reduces the number of units proposed to 176 and changes the unit mix.

1.4. The updated traffic assessment is set out Chapter 2. Responses to the traffic matters raised by Council and TfNSW are provided in Chapter 3.

[1] Traffic Report for Planning Proposal for Proposed Mixed Use Development, Ramsgate, dated October 2021

2. UPDATED TRAFFIC ASSESSMENT

2.1. An updated traffic assessment of the planning proposal has been undertaken to address matters raised by Council and TfNSW. The updated traffic assessment is based on:

- new traffic counts (including local roads as requested by Council); and
- updated SIDRA network modelling (as recommended by TFNSW);

2.2. The updated traffic assessment is set out through the following sections:

- existing traffic flows;
- intersection operations;
- traffic generation and distribution; and
- traffic effects.

Existing Traffic Flows

2.3 Updated traffic counts were undertaken in the weekday afternoon (Thursday 28 April - 4.00pm to 6.00pm) and Saturday midday (30 April - 11.00am to 2:00pm) peak periods at the following intersections:

- The Promenade/Torwood Street;
- Ramsgate Road/Targo Road/The Promenade.
- Ramsgate Road/Dalkeith Street;
- Rocky Point Road/Ramsgate Road;
- Rocky Point Road/Targo Road;
- Rocky Point Road/Hastings Street;
- Hastings Street/Burgess Street; and

- Burgess Street/Targo Road.

2.4 Traffic flows are shown in Figures 2 and 3, and summarised in Table 2.1.

Table 2.1: Existing Hourly Two-Way Traffic Flows

Location	Weekday Afternoon	Saturday Midday
Rocky Point Road		
- north of Hastings Street	2040	1335
- north of Targo Road	2040	1345
- north of Ramsgate Road	2020	1330
- south Ramsgate Road	2620	1825
Targo Road		
- west Rocky Point Road	75	90
- west Burgess Street	70	110
- north of Ramsgate Road	75	95
Ramsgate Road		
- east of Rocky Point Road	730	860
- west of Rocky Point Road	1340	1375
- west of Dalkeith Street	1405	1340
- west of Targo Road	1760	1845
The Promenade		
- south of Ramsgate Road	440	555
- south of Torwood Street	440	590
Burgess Street		
- north of Hastings Street	90	100
- north of Targo Road	75	85
- south of Targo Road	10	15
Hastings Street		
- west of Rocky Point Road	65	60
Dalkeith Street		
- south of Ramsgate Road	75	100
Torwood Street		
- east of The Promenade	50	40

2.5 Examination of Table 2.1 reveals that:

- Rocky Point Road carried some 1,330 to 2,620 vehicles per hour (two way) during the weekday afternoon and Saturday midday. Traffic flows were highest south of Ramsgate Road;

- Targo Road carried some 70 to 110 vehicles per hour (two way) during the weekday afternoon and Saturday midday;

- Ramsgate Road carried some 730 to 1,845 vehicles per hour (two way) during the weekday afternoon and Saturday midday. Traffic flows were highest west of Targo Road;

- The Promenade carried some 440 to 590 vehicles per hour (two way) during the weekday afternoon and Saturday midday;

- Dalkeith Street carried some 75 to 110 vehicles per hour (two way) during the weekday afternoon and Saturday midday;

- Torwood Street carried some 40 to 50 vehicles per hour (two way) during the weekday afternoon and Saturday midday;

- Hastings Street carried some 60 to 65 vehicles per hour (two way) during the weekday afternoon and Saturday midday; and

- Burgess Street carried some 10 to 100 vehicles per hour (two way) during the weekday afternoon and Saturday midday.

Intersection Operation

2.10 The capacity of the road network is generally determined by the capacity of its intersections to cater for peak period traffic flows. The intersections with flows shown in Figures 2 and 3 have been analysed using the SIDRA program. SIDRA simulates the operations of intersections to provide a number of performance measures.

2.11 The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

- For traffic signals, the average delay per vehicle in seconds is calculated as delay/(all vehicles), for roundabouts the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to the following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Good with minimal delays and spare capacity
29 to 42	=	"C"	Satisfactory with spare capacity
43 to 56	=	"D"	Satisfactory but operating near capacity
57 to 70	=	"E"	At capacity and incidents will cause excessive delays. Roundabouts require other control mode.
>70	=	"F"	Unsatisfactory and requires additional capacity

- For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

2.12 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be

misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.

2.13 The SIDRA model has been to include recommendations by TfNSW as per its letter dated 1 February 2022 (a copy is provided in Attachment B). These matters include:

- Pedestrian walking speed changed from 1.3m/s to 1.2m/s;
- PCU values for heavy vehicles changed to 2.0;
- Bunching has been applied to intersections that would be affected by downstream signals including Dalkeith Street;
- Pedestrian movements have been increased by 50 per cent in the future scenarios (section 2.36);
- Turning movements give way to pedestrian movements at all intersections; and
- Phasing amended at the Ramsgate Road / The Promenade / Targo Road intersection in the plus development scenario.

2.14 The SIDRA analysis found that for existing traffic flows the:

- the priority controlled intersection of Hastings Street and Rocky Point Road operates with average delays (for the movement with the highest delay, right turn out of Hastings Street) of more than 70 seconds per vehicle in the peak periods, representing level of service F, unsatisfactory level operation. It is noted that the volume of traffic turning right from Hastings Street is low (less than 10 vehicles per hour). Other movements operate with average delays

per vehicle of less than 20 seconds per vehicle. This represents level of service B, satisfactory operation;

- the priority controlled intersection of Targo Road and Rocky Point Road operates with average delays (for the movement with the highest delay, right turn out of Targo Road) of more than 70 seconds per vehicle in the peak periods, representing level of service F, unsatisfactory level operation. It is noted that the volume of traffic turning right from Targo Road is low (less than 10 vehicles per hour). Other movements operate with average delays per vehicle of less than 20 seconds per vehicle. This represents level of service B, satisfactory operation;

- the signalised intersection of Rocky Point Road and Ramsgate Road operates with average delays of less than 35 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service C, a satisfactory level of service;

- the priority controlled intersection of Ramsgate Road and Dalkeith Street operates with average delays (for the movement with the highest delay, right turn out of Dalkeith Street) of less than 35 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service C, a satisfactory level of service;

- the priority controlled intersection of Ramsgate Road, The Promenade and Targo Road operates with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service;

- the priority controlled intersection of The Promenade and Torwood Street operates with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service;

- the priority controlled intersection of Burgess Street and Targo Road operates with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A.B, a good level of service; and

- the roundabout controlled intersection of Burgess Street and Hastings Street operates with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service.

Traffic Generation and Distribution

2.15 The planning proposal relates to a mixed use development comprising residential and retail uses with access from Ramsgate Road (left in entry only) and Targo Road. An indicative scale of development is set out below:

- 176 units (42 x 1 bed, 101 x 2 bed and 33 x 3 bed);
- 3,826m^2 GLA (4,192m^2 GFA) supermarket;
- 1,413m^2 GLA (1,588m^2 GFA) Dan Murphy's; and
- 2,405m^2 GLA (2,505m^2) specialty retail.

2.16 Traffic generated by the proposed development will have its greatest effects during the weekday afternoon and Saturday peak periods.

2.17 For the residential component a generation rate of 0.29 vehicles per unit (two way) has been used, based on TfNSW Guidelines. Applying this rate the 185 residential units would generate some 50 vehicles per hour (two way) in the weekday afternoon and Saturday midday peak hours.

2.18 Estimates of traffic generated by the retail have been based on the supermarket/specialty retail rates used for the similar South Village mixed residential site at Kirrawee and surveys of a Dan Murphy's store. For supermarkets/specialty retail, the South Village site used the following rates:

Weekday Afternoon

- supermarket – 14.0 vehicles per hour per 100m^2;
- specialty retail - 4.1 vehicles per hour per 100m^2;

Saturday Midday

- supermarket – 13.2 vehicles per hour per 100m^2;
- specialty retail - 9.6 vehicles per hour per 100m^2.

2.19 Using these rates the proposed supermarket/specialty shops would generate some 635 and 735 vehicles per hour (two-way) in the weekday afternoon and Saturday midday peak hours.

2.20 For Dan Murphy's, estimates of traffic generation are based on surveys of a free standing Dan Murphy's store at Wentworthville. These surveys found a generation rate of 10.8 vehicles per 100m^2 in the weekday afternoon peak hour and 12.2 vehicles per 100m^2 in the Saturday midday peak hour. Using these rates the proposed Dan Murphy's (some 1,413m^2) would generate some 155 and 170 vehicles per hour (two-way) in the weekday afternoon and Saturday midday peak hours. A proportion of Dan Murphy's customers would also shop at the supermarket. Some 25% of Dan Murphy's customers would typically also shop at

the supermarket. Thus, the additional traffic generated by Dan Murphy's would be some 115 and 130 vehicles per hour (two way) in the weekday afternoon and Saturday midday peak hours.

2.21 Based on the above, the proposed development would generate some 800 and 915 vehicles per hour (two-way) in the weekday afternoon and Saturday midday peak hours respectively hour. TfNSW Guidelines suggests that some 25 per cent of retail trips are likely to be passing trade, i.e. customers who would have driven past the development regardless of their visit to the development.

2.22 The existing road network has a number of constraints for traffic departing the site to travel west along Ramsgate Road (no right turn permitted from Targo Road or Rocky Point Road) or to travel south along Rocky Point Road (the existing right turn out of Targo Road currently operates at capacity). To address these constraints the following works are proposed to cater for development traffic and improve access to/from the subject site:

- install traffic signals at the intersection of Ramsgate Road/Targo Road/The Promenade. This would allow for all movements out of Targo Road and the through movement from The Promenade into Targo Road (the right turn out of The Promenade would remain banned), retain the existing right turn into The Promenade and retain banning the right turn into Targo Road;

- install traffic signals at the intersection of Rocky Point Road/Targo Road. During the Weekday afternoon peak period (3pm to 7pm), the right turn into Targo Road would be banned. All movements would be retained at this intersection at other times. The provision of traffic signals would provide capacity for right turns out of Targo Road;

- remove the existing pedestrian signals on Rocky Point Road (located some 30 metres north of Targo Road). Pedestrian access across Rocky Point Road would be provided at the new signals at Targo Road; and

- removal of parking (total some 10 spaces) on Rocky Point Road (between Ramsgate Road and Targo Road) to accommodate the new traffic signals at Targo Road (see Figure 4).

2.23 The TfNSW traffic demand warrant for the installation of traffic signals (as set out in Traffic Signal Design – Section 2 Warrants) is as follows:

For each of four one hour periods of an average day:

- *the major road flow exceeds 600 vehicles/hour in each direction; and*
- *the minor road flow exceeds 200 vehicles/hour in one direction.*

2.24 Based on a review of SCATS data for the intersection of Ramsgate Road/Rocky Point Road (for Thursday 17 February 2022), the recent traffic counts (undertaken on Thursday 28 April 2022) and the distribution of development traffic:

- traffic flows in each direction on Rocky Point Road would be some 700 to 1,300 vehicles per hour in each direction for each hour between 2.00pm and 6.00pm;
- traffic flows in one direction (eastbound) on Targo Road would be some 250 to 300 vehicles per hour for each hour between 2.00pm and 6.00pm;
- traffic flows in each direction on Ramsgate Road (west of The Promenade) would be some 750 to 850 vehicles per hour in each direction for each hour between 2.00pm and 6.00pm; and
- traffic flows in one direction (southbound) on The Promenade would be some 250 to 300 vehicles per hour for each hour between 2.00pm and 6.00pm.

2.25 Therefore, the TfNSW warrant for the two proposed traffic signals is satisfied.

2.26 Development traffic has been assigned to the road network based on accessibility to the site, the catchment area and existing traffic flows as set out below.

- 30% from the north/northeast
- 30% from the south
- 20% from the west
- 10% from the east
- 10% from the northwest

2.27 Due to the right turn ban from Ramsgate Road (eastbound) into Rocky Point Road (northbound), traffic accessing the site from the east would travel along Ramsgate Road, turn left into Dalkeith Street, right into Torwood Street, right into The Promenade and use the new traffic signals to access Targo Road.

2.28 Banning the right turn from Rocky Point Road into Targo Road during the weekday afternoon peak hours would result in either vehicles using an alternate route or be lost (either by travelling to an alternate location or at a time when the right turn is available). It has been assumed that of the 120 vehicles per hour in afternoon peak hour to turn right, 1/3 would turn right into Hastings Street (and access the site via Burgess Street, 1/3 would use Burgess Street (via an alternate route to Hastings Street), and 1/3 would be lost

2.29 The additional development traffic has been assigned to the road network taking into account passing trade and the above changes to the road network. Existing peak hour flows plus additional development traffic are shown in Figures 2 and 3, and summarised in Table 2.2.

Table 2.2: Existing + Development Hourly Two Way Traffic Flows				
Location	**Weekday Afternoon**		**Saturday Midday**	
	Existing	+ Dev	Existing	+ Dev
Rocky Point Road				
- north of Hastings Street	2040	+125	1335	+220
- north of Targo Road	2040	+85	1345	+220
- north of Ramsgate Road	2020	+225	1330	+205
- south Ramsgate Road	2620	+185	1825	+160
Targo Road				
- west Rocky Point Road	75	+380	90	+545
- west of Site Access	75	+320	90	+285
- west Burgess Street	70	+160	110	+195
- north of Ramsgate Road	75	+160	95	+195
Ramsgate Road				
- east of Rocky Point Road	730	+70	860	+75
- west of Rocky Point Road	1340	+20	1375	+20
- west of Site Access	1395	+100	1350	+110
- west of Dalkeith Street	1405	+60	1340	+65
- west of Targo Road	1760	+140	1845	+155
The Promenade				
- south of Ramsgate Road	440	+80	555	+105
- south of Torwood Street	440	+40	590	+60
Burgess Street				
- north of Hastings Street	90	+120	100	+90
- north of Targo Road	75	+160	85	+90
- south of Targo Road	10	+0	15	+0
Hastings Street				
- west of Rocky Point Road	65	+40	60	+0
Dalkeith Street				
- south of Ramsgate Road	75	+40	100	+45
Torwood Street				
- east of The Promenade	50	+40	40	+45
Site Access				
- north of Ramsgate Road	0	+80	0	+90
- south of Targo Road	0	+680	0	+830

2.30 Examination of Table 2.2 reveals additional development traffic flows that compared to the base case will be:

- traffic flows on the Rocky Point Road would increase by some 85 to 225 vehicles per hour (two way) during peak periods;

- traffic flows on the Ramsgate Road (east of site access) would increase by some 20 to 75 vehicles per hour (two way) during peak periods. West of the sit access, traffic flows would increase by some 60 to 155 vehicles per hour (two way) during the peak periods;

- traffic flows in the short section of Targo Road (between the site access and Rocky Point Road) would increase by some 380 and 545 vehicles per hour (two way) during peak periods. West of the site access, the increase in traffic is lower at some 160 to 320 vehicles per hour (two way);

- traffic on The Promenade would increase by some 40 and 105 vehicles per hour (two way) during peak periods;

- traffic on Dalkeith Street would increase by some 40 and 45 vehicles per hour (two way) during peak periods;

- traffic on Hastings Street would increase by some 40 vehicles per hour (two way) during weekday afternoon peak periods as a result of the right turn into Targo Road being banned;

- traffic on Burgess Street would increase by some 160 vehicles per hour (two way) during weekday afternoon peak periods as a result of the right turn into Targo Road being banned and some 90 vehicles during the Saturday Midday peak period;

- the southern site access would generate some 80 to 90 vehicles per hour (two-way) during the peak periods and the northern site access would

generate some 680 to 830 vehicles per hour (two-way) during the peak periods.

Traffic Effects

2.31 The intersections indicated in section 2.7 have been reanalysed using SIDRA with development traffic in place and the suggested traffic management measures set out in Section 2.22 (SIDRA movement summaries provided in Attachment D). The analysis found that the:

- the priority controlled intersection of Hastings Street and Rocky Point Road will continue to operate with average delays (for the movement with the highest delay, right turn out of Hastings Street) of more than 70 seconds per vehicle in the peak periods, representing level of service F, unsatisfactory level operation. It is noted that the volume of traffic turning right from Hastings Street is low (less than 10 vehicles per hour). Other movements operate with average delays per vehicle of less than 20 seconds per vehicle. This represents level of service B, satisfactory operation;

- the signalised intersection of Rocky Point Road and Targo Road will operate with average of less than 20 seconds per vehicle during the weekday afternoon and Saturday midday peak periods. This represents level of service B, an acceptable level of service;

- the signalised intersection of Rocky Point Road and Ramsgate Road will continue to operate with average delays of less than 35 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service C, a satisfactory level of service;

- the priority controlled intersection of Ramsgate Road and Dalkeith Street will continue to operate with average delays (for the movement with the highest delay, right turn out of Dalkeith Street) of less than 35 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service C, a satisfactory level of service;

- the signalised intersection of Ramsgate Road, The Promenade and Targo Road operates with average delays (for the movement with the highest delay) of less than 28 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service B, an acceptable level of service;

- the priority controlled intersection of The Promenade and Torwood Street will continue to operate with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service;

- the priority controlled intersection of Burgess Street and Targo Road will continue to operate with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A.B, a good level of service;

- the roundabout controlled intersection of Burgess Street and Hastings Street will continue to operate with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service; and

- the site access will operate with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during the weekday afternoon and Saturday midday peak periods. This represents a level of service A/B, a good level of service.

2.32 Therefore, with the suggested traffic management measures set out in Section 2.22, the adjacent road network will accommodate the additional traffic generated by the proposed development.

2.33 An assessment of 2032 traffic conditions has also been undertaken. To account for background growth, traffic flows for all movements have been increased by 1% per year. This growth rate is based on traffic growth projections from the Sydney Strategic Travel Model (STM).

2.34 The intersections have been reanalyzed for 2032 traffic conditions with and without development traffic. Results of the SIDRA analysis are set out below:

2032 No Development (existing road network)

- the priority controlled intersection of Hastings Street and Rocky Point Road will operate with average delays (for the movement with the highest delay, right turn out of Hastings Street) of more than 70 seconds per vehicle in the peak periods, representing level of service F, unsatisfactory level operation. It is noted that the volume of traffic turning right from Hastings Street is low (less than 10 vehicles per hour). Other movements operate with average delays per vehicle of less than 20 seconds per vehicle. This represents level of service B, satisfactory operation;

- the priority controlled intersection of Targo Road and Rocky Point Road operates with average delays (for the movement with the highest delay, right

turn out of Targo Road) of more than 70 seconds per vehicle in the peak periods, representing level of service F, unsatisfactory level operation. It is noted that the volume of traffic turning right from Targo Road is low (less than 10 vehicles per hour). Other movements operate with average delays per vehicle of some 30 seconds per vehicle. This represents level of service B, satisfactory operation;

- the signalised intersection of Rocky Point Road and Ramsgate Road operates with average delays of some 45 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service D, a satisfactory level of service nearing capacity;

- the priority controlled intersection of Ramsgate Road and Dalkeith Street will operate with average delays (for the movement with the highest delay, right turn out of Dalkeith Street) of some 45 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service D, a satisfactory level of service nearing capacity;

- the priority controlled intersection of Ramsgate Road, The Promenade and Targo Road operates with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service;

- the priority controlled intersection of The Promenade and Torwood Street operates with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service;

- the priority controlled intersection of Burgess Street and Targo Road operates with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A.B, a good level of service; and

- the roundabout controlled intersection of Burgess Street and Hastings Street operates with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service.

2032 Plus Development (with proposed road network modifications set out in paragraph 2.22)

- the priority controlled intersection of Hastings Street and Rocky Point Road will continue to operate with average delays (for the movement with the highest delay, right turn out of Hastings Street) of more than 70 seconds per vehicle in the peak periods, representing level of service F, unsatisfactory level operation. It is noted that the volume of traffic turning right from Hastings Street is low (less than 10 vehicles per hour). Other movements operate with average delays per vehicle of less than 20 seconds per vehicle. This represents level of service B, satisfactory operation;

- the signalised intersection of Rocky Point Road and Targo Road will operate with average of less than 20 seconds per vehicle during the weekday afternoon and Saturday midday peak periods. This represents level of service B, an acceptable level of service;

- the signalised intersection of Rocky Point Road and Ramsgate Road will continue to operate with average delays of some 35 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service C, a satisfactory level of service;

- the priority controlled intersection of Ramsgate Road and Dalkeith Street will operate with average delays (for the movement with the highest delay, right turn out of Dalkeith Street) of less than 42 seconds per vehicle in the peak periods, representing level of service C, satisfactory level of service;

- the signalised intersection of Ramsgate Road, The Promenade and Targo Road operates with average delays (for the movement with the highest delay) of less than 28 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service B, an acceptable level of service;

- the priority controlled intersection of The Promenade and Torwood Street will continue to operate with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service;

- the priority controlled intersection of Burgess Street and Targo Road will continue to operate with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A.B, a good level of service;

- the roundabout controlled intersection of Burgess Street and Hastings Street will continue to operate with average delays (for the movement with the

highest delay) of less than 15 seconds per vehicle during weekday afternoon and Saturday midday peak periods. This represents level of service A/B, a good level of service; and

- The site access will operate with average delays (for the movement with the highest delay) of less than 15 seconds per vehicle during the weekday afternoon and Saturday midday peak periods. This represents a level of service A/B, a good level of service.

2.35 The above analysis shows that with the proposed modifications, in 2032, the road network can cater for traffic generated by the proposed development.

3. RESPONSE TO MATTERS RAISED BY AUTHORITIES

3.1 The traffic matters raised by Council are set out in a letter by WSP on behalf of Council dated 18 March 2022 and provided in Attachment A. The traffic matters raised by TfNSW are set out in its letter dated 1 February 2022 and provided in Attachment B. These traffic matters were discussed in a meeting with both authorities on 4 March 2022. A copy the minutes of the meeting on 4 March 2022 are provided in Attachment C. Our response to these matters is set out below.

Matters Raised by Council

3.2 The traffic matters raised by Council are summarised below.

- banning of the right turn from Rocky Point Road into Targo Road;
- prevention of right turn movements into the site from Ramsgate Road;
- potential vehicle detours;
- upgrading the intersection of Ramsgate Road / The Promenade / Targo Road to traffic signals and whether appropriate sight lines are maintained
- relocation of the westbound bus stop on Ramsgate Road;
- access to adjacent site (201-209 Rocky Point Road).

Banning of the right turn from Rocky Point Road into Targo Road

3.3 Banning the right turn from Rocky Point Road into Targo Road would divert development traffic into the streets north of the site such as Burgess Street and Hastings Street. Currently these streets carry traffic flows of some 50 to 100 vehicles per hour (two way) in the weekday afternoon and Saturday midday peak hours. With a permanent ban of the right turn, traffic flows would increase by

some 40 vehicles per hour (two way) on Hastings Street and some 120 to 160 vehicles per hour (two way) on Burgess Street. Without the right turn ban, there would be no increase in traffic on Hastings Street and a lower increase (some 90 vehicles per hour (two way)) on Burgess Street. Banning the right turn only in the weekday afternoon peak hour would limit the higher increase in traffic to only part of the day.

Prevention of right turn movements into the site from Ramsgate Road

3.4 Council has suggested the construction of a 500mm wide median be built along Ramsgate Road from the junction of Ramsgate/Rocky Point Road to the intersection of Dalkeith Street/ Ramsgate Road with proposed left in left out traffic manoeuvres from Dalkeith Street.

3.5 The suggestion to construct a median in Ramsgate Road opposite the site access to prevent right turns into the site is supported. However, extending the median to restrict access to Dalkeith Street to left turns only is a matter for Council to determine separately to the planning proposal as it would impact on existing road users and there is no nexus between banning right turns to/from Dalkeith Street and the planning proposal.

Potential Vehicle Detours

3.6 Council raised concern on what the impact of development traffic accessing the site would have the local street network south of Ramsgate Road. As noted in Chapter 2, due to the right turn ban from Ramsgate Road (eastbound) into Rocky Point Road (northbound), traffic accessing the site from the east would travel along Ramsgate Road, turn left into Dalkeith Street, right into Torwood Street, right into The Promenade and use the new traffic signals to access Targo Road. The increase in traffic would be low at some 40 to 45 vehicles per hour (two

way), the weekday afternoon and Saturday midday peak hours. Traffic flows in Dalkeith Street and Torwood Street are low at some 40 to 100 vehicles per hour (two way), the weekday afternoon and Saturday midday peak hours. Therefore, with development traffic in place, traffic flows in these local streets would remain low. SIDRA analysis found that with development traffic in place, the intersection of Torwood Street/The Promenade would continue to operate at LOS A in the weekday afternoon and Saturday midday peak hours.

Upgrading the intersection of Ramsgate Road / The Promenade / Targo Road to traffic signals and whether appropriate sight lines are maintained.

3.7 Council supports the proposed upgrading of the intersection of Ramsgate Road / The Promenade / Targo Road to traffic signals. However, it has raised concern that the signals may result in a longer queue for the right turn movement into The Promenade and this may impact sight lines at the pedestrian refuge located some 130 metres west of The Promenade. The SIDRA modelling found that with the proposed signals, in 2032, the maximum queue for the right turn into The Promenade would be some 100 metres. This may impact sight lines at the pedestrian refuge. To address this issue, two options are suggested:

- relocate the pedestrian refuge some 50 metres to the west; or
- remove the pedestrian refuge, noting that the new signals will provide a pedestrian crossing on Ramsgate Road.

Relocate the westbound bus stop on Ramsgate Road

3.8 Council has raised no objections to relocating the bus stop subject to approval by TfNSW, the bus operator, and that the applicant bear all costs of the relocation.

Access to neighbouring site

3.9 In response to the matters raised by Council, a concept plan has been prepared by SJB, that shows how access could be provided to a future redevelopment of the neighbouring site east. The plan provides for widening of the existing 3 metre wide driveway to allow access to neighbouring site as well as providing for a separate pedestrian link to the subject site between Ramsgate Road and Targo Road. Vehicle swept paths are provided in Attachment E. These show that:

- while part of the access narrows to one lane for a short distance, there is provision for two cars to pass each other within the access either side of the one lane section with sight lines to each side;
- a 10.5 metre long truck can enter and depart the site in a forward direction (subject to provision of a turntable); and
- a loading area could be provided on the neighbouring site separate to access to a basement car park.

3.10 The above arrangements are considered appropriate for the low traffic generation of a mixed use development that could be developed on the neighbouring site.

Matters Raised by TfNSW

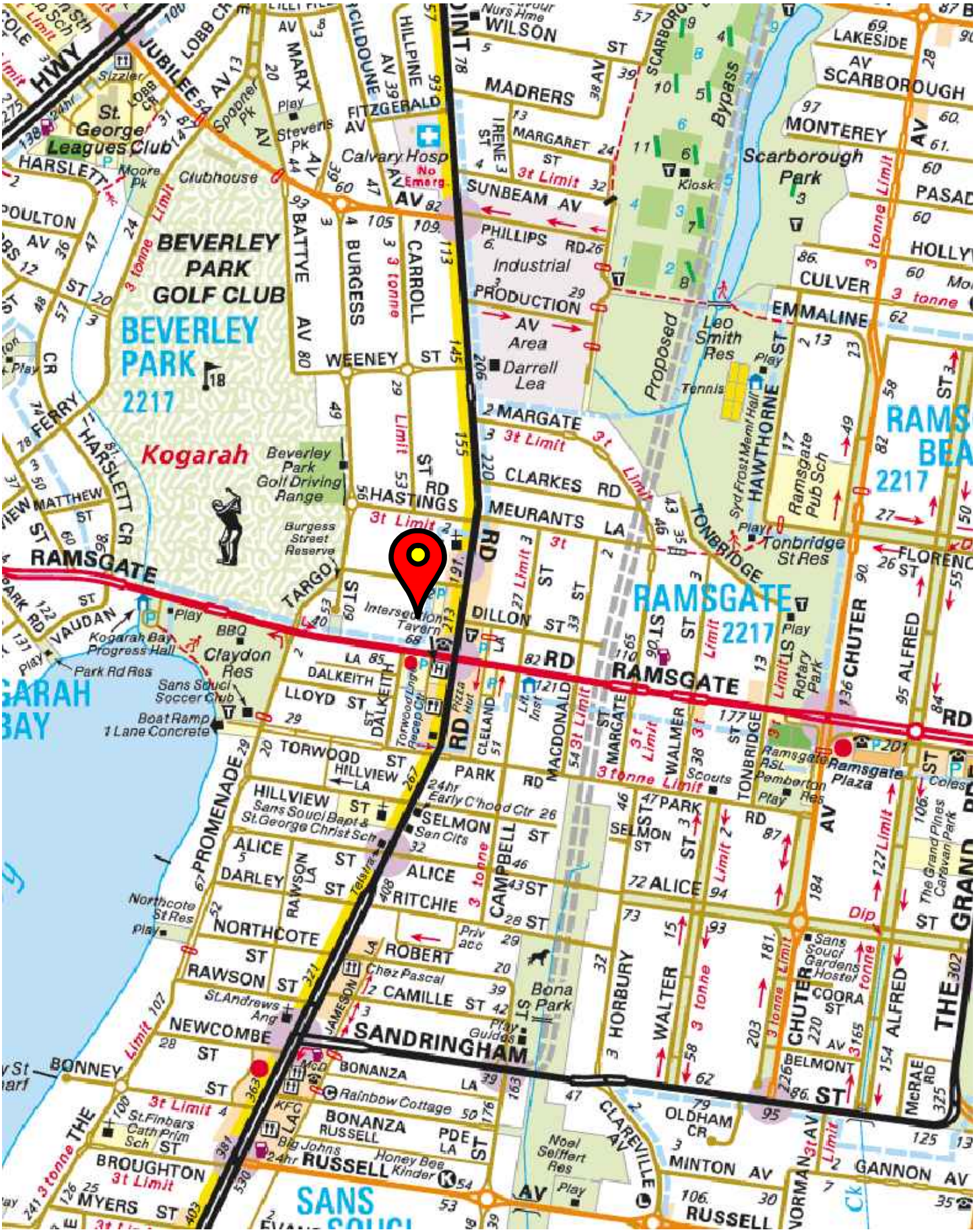
3.11 Our response to the matters raised are set out below:

- the warrants for traffic signals is satisfied as provided in Chapter 2;
- with regards to the intersection of Rocky Point Road/Targo Road, the traffic signals were proposed to allow right turns out of Targo Road. Therefore, the option of the existing priority controlled intersection is not supported. We note the suggestion to ban the right turn into Targo Road and suggest that this be implemented only in the weekday PM peak period. At other times the right turn would be permitted. The removal of parking on the eastern side of Rocky Point Road would provide for a through lane of traffic in addition to the shared

through/turn lane, thus maintaining at least one lane for through traffic (as per the existing situation);

- the SIDRA modelling has found that traffic signals at the Ramsgate Road/Targo Road/The Promenade intersection would operate at a satisfactory LOS;
- Council has advised that a 500mm median be provided on Ramsgate Road to prevent right turns into the site;
- consultation has been undertaken with Bayside Council who indicated that it would not object to the removal of the parking on the eastern side of Rocky Point Road subject to it being replaced within the development (which it is proposed);
- the assumed 25% reduction in Dan Murphy's traffic results in only a minor reduction in overall traffic generation of the planning proposal (less than 5%) and thus the traffic effects without it would be similar to that assessed in this report;
- the directional distribution of development traffic is provided in Chapter 2;
- the SIDRA model has been updated to include the driveway on the eastern side of the intersection of Rocky Point Road/Targo Road;
- Figure 4 has been updated noting that no parking is currently permitted on the northern side of the Targo Road approach to the intersection with Rocky Point Road. Thus the net loss of parking is 10 spaces on Rocky Point Road;
- confirmation that the right turn out of The Promenade will remain banned as part the proposed signals at the intersection with Ramsgate Road;
- further details on basement parking and loading arrangements are matters for a DA;
- the simultaneous removal of the existing pedestrian signals on Rocky Point Road and installation of new signals at Targo Road is noted. Also noted is the need of for design of new signals to address any see through effects with the existing signals at Ramsgate Road;

- with regards to the pedestrian refuge on Ramsgate Road, two options are suggested:
    - relocate the pedestrian refuge some 50 metres to the west; or
    - remove the pedestrian refuge, noting that the new signals will provide a pedestrian crossing on Ramsgate Road
- an assessment of how development traffic from the east would access the site is provided in Chapter 2;
- any relocation of bus stops on Ramsgate Road would be at no cost to TfNSW is noted.
- SIDRA modelling has been upgraded as per Chapter 2.

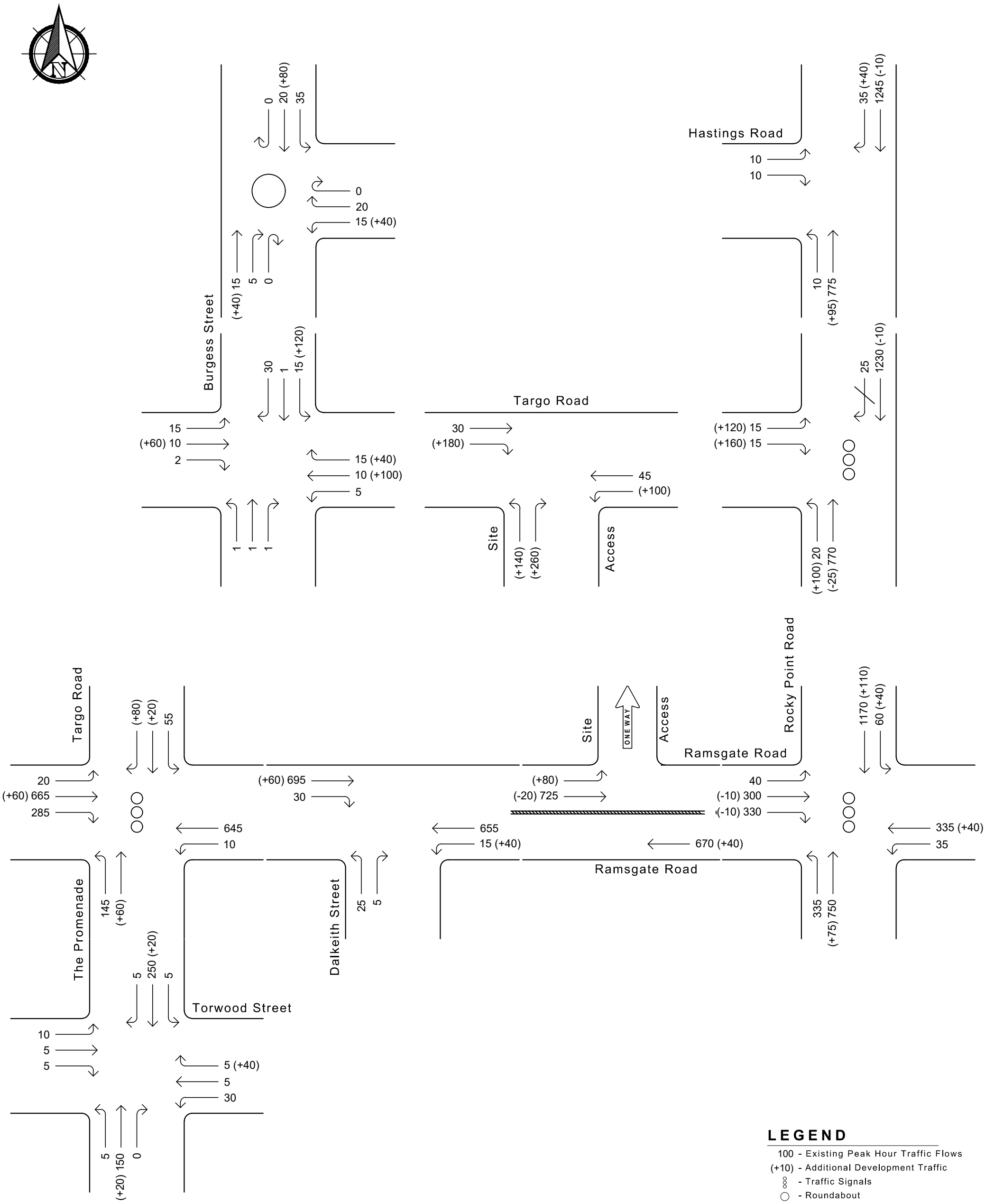


Location Plan

Colston Budd Rogers & Kafes Pty Ltd

Drawn By: CBRK Pty Ltd_hs Ref: 11771 28.04.2022

Figure 1



LEGEND

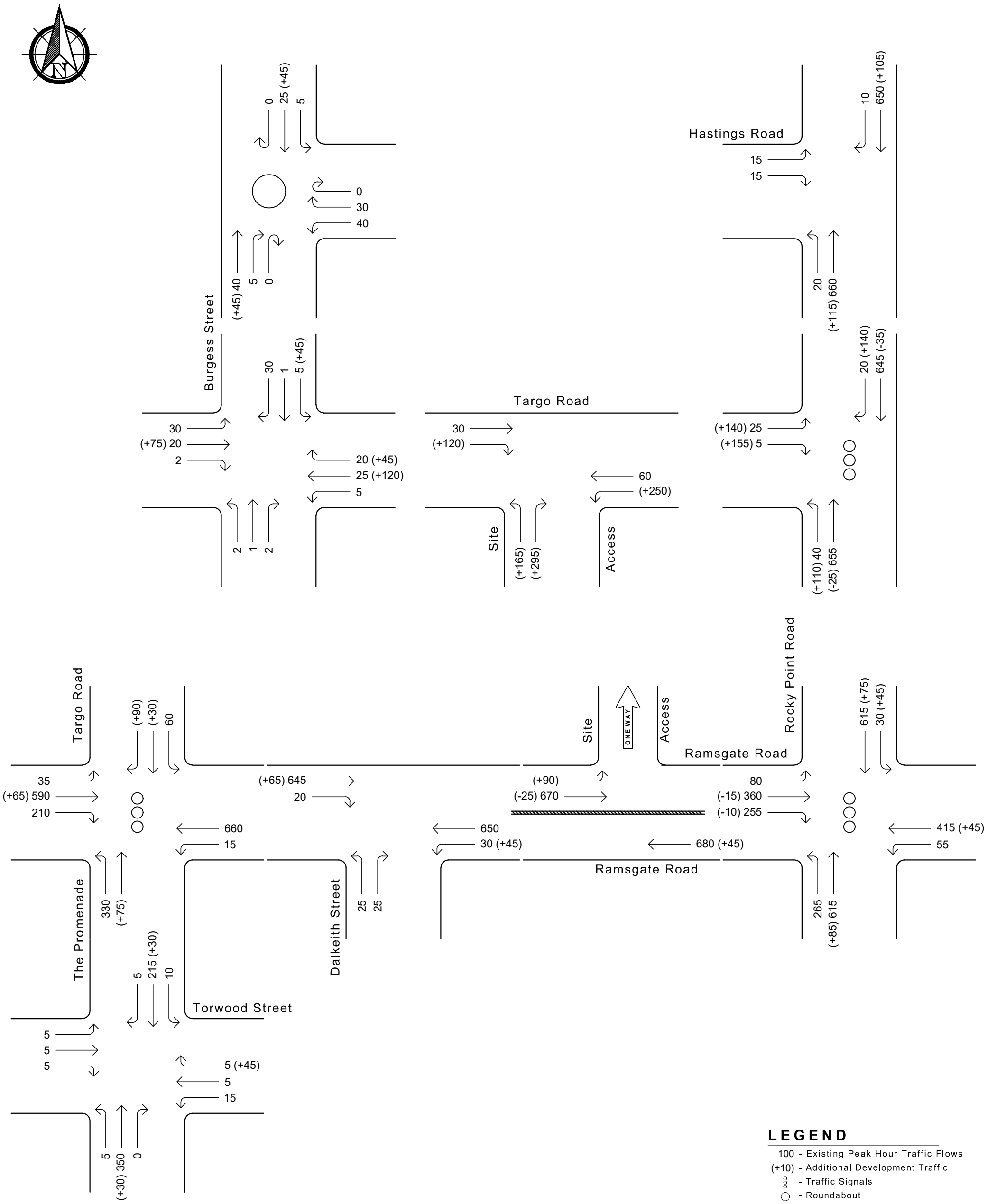
100 - Existing Peak Hour Traffic Flows
(+10) - Additional Development Traffic
- Traffic Signals
- Roundabout

Existing weekday afternoon peak hour traffic flows plus development traffic

Figure 2

Colston Budd Rogers & Kafes Pty Ltd

Drawn By: CBRK Pty Ltd_hs Ref: 11771 28.04.2022 DD.MM.YYYY



Existing Saturday midday peak hour traffic flows plus development traffic

Figure 3

Colston Budd Rogers & Kafes Pty Ltd

Drawn By: CBRK Pty Ltd_hs Ref: 11771 28.04.2022 DD.MM.YYYY

NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS. THIS PLAN SHOULD NOT BE USED FOR COMPLIANCE CERTIFICATION OR FOR CONSTRUCTION.

Lost Parking Space

LOSS OF PARKING FROM PROPOSED SIGNALS

DRAWN BY CBRK Pty Ltd_mr Ref: 11771 17.05.2022

4

ATTACHMENT A

LETTER FROM WSP ON BEHALF OF COUNCIL

(Dated 18 March 2022)

Our ref: PS127427

18 March 2022

Harkirat Singh
Senior Strategic Planner
Georges River Council
email: hsignh@georgesriver.nsw.gov.au

Dear Harkirat

Response to Revised Planning Proposal – 193-199 Rocky Point Road, 66-68 Ramsgate Road and 2-6 Targo Road, Ramsgate

Elton Consulting, a WSP Company has been engaged by Georges River Council (Council) to undertake an independent assessment of a Planning Proposal for the site located at 193-199 Rocky Point Road, 66-68 Ramsgate Road and 2-6 Targo Road, Ramsgate, referred to as Ramsgate Village (the Site).

A preliminary assessment has been undertaken against the relevant strategic planning framework and site-specific context, to determine the Planning Proposal's strategic and site-specific planning merit. The preliminary assessment identified a number of matters that would be required to be addressed as part of an amended proposal, summarised as follows (and appended):

- Street wall and overall height of proposal
- Transition to properties to the west
- Transition to heritage items
- Plaza/Through-site links
- Solar access
- Access to neighbouring site
- Deep soil landscaping
- Traffic
- Affordable housing

On the 29 November 2021 a letter was issued to Council identifying the above matters to be resolved prior to progressing assessment of the Planning Proposal.

On the 1 March 2022 the Proponent provided an amended concept in response to the preliminary assessment matters outlined above. The revised concept has undergone some positive changes from the

Level 27, 680 George Street
Sydney NSW 2000
GPO Box 5394
Sydney NSW 2001

Tel: +61 2 9272 5100
Fax: +61 2 9272 5101
www.wsp.com

WSP acknowledges that every project we work on takes place on First Peoples lands.
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

WSP Australia Pty Limited ABN 80 078 004 798

previous submission, however, there are a number of matters that require further consideration and significant design changes to warrant support.

The below summarises our initial comments on the revised concept provided by the Proponent. It is to be noted that a full set of architectural plans illustrating the revised concept has not been provided therefore these comments will be further considered with any full set of plans provided.

Height

- Stepping the proposed street wall of 6 storeys at the corner down to 4 storeys towards the centre of the site has partially resolved previous concerns raised relating to street wall heights. Notwithstanding, the overall bulk of the building has not been reduced as the proposal retains a 9 storey tower on Rocky Point Road and along Targo Road. A 3 metre setback is not sufficient for the tower form to be recessed from the perspective of a pedestrian on Rocky Point Road, as illustrated by **Figure 1** below. At the theoretical eye height of 1.8m, the entire bulk of the tower element will be visible from the public domain. The minor reduction in the height of the street wall alone is not considered to be an adequate response as the overall bulk and scale of the development has not been reduced. While it is acknowledged the street wall height has been reduced, the setbacks of the upper levels are not considered sufficient to ensure compatibility with the surrounds to reflect the local centre scale.

  Note: Any revised set of plans should include height in metres for the proposed scheme in addition to identifying the number of storeys.

- The revised architectural plans should show the original street wall height proposed to illustrate the extent of reduction proposed.

- The revised concept does not include an elevation/building envelope diagram along Ramsgate Road and as such it is unclear if the height along this elevation has been altered as a result in changes to the street wall height on Rocky Point Road. Further consideration of the height along this elevation is required.

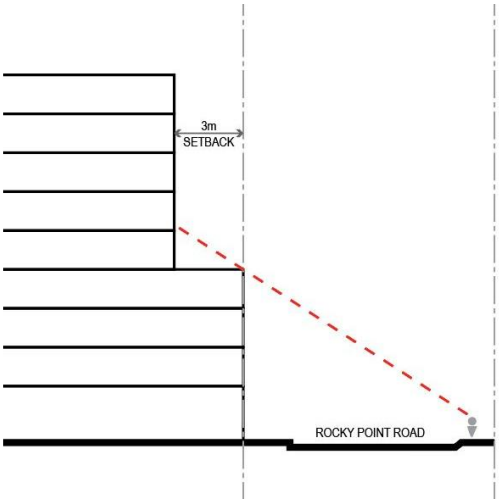


Figure 1 Line of Sight Diagram

Transition of height down to properties to the west

- The transition to the properties to the west from Building B has been partially resolved through the reduction from 6 storeys to 4 storeys and adoption of the stepping street wall approach down to 1.5 storeys at the western side boundary. However, the impact of this reduced building envelope on the

proposed density and FSR sought by the Planning Proposal is unknown and no elevation/building envelope diagrams of Ramsgate Road have been provided to determine the building envelope elsewhere on the site. Any proposed amendments must be supported by revised FSR calculations and will be considered in their entirety as part of an amended set of plans.

- The 1.5 metre setback from the western boundary adjoining the car park entrance is considered inadequate and does not ensure an appropriate transition to lower density properties to the west. The Georges River Development Control Plan 2021 (GRDCP 2021) requires the provision of a 5 metre setback to buffer adjoining lower density residential development and the proposal does not provide this. Furthermore, the 1.5 metre setback is not of an adequate size to promote deep soil landscaping to screen this elevation as well as contribute to other environmental benefits, such as infiltration of stormwater and reduction of urban heat island effect.
- In addition to the above, Part 7 of GRDCP 2021 also includes objectives and controls to ensure an appropriate transition between business zones and adjoining residential zones. Specifically, the controls in Part 7.1.4 relevant to the development are reproduced below:

  3. Interface between Business Zones and adjoining land uses

  Controls

  5. Side and rear boundary setbacks adjacent to a lower density residential zone or heritage item/conservation area for the purposes of visual separation, privacy and transition: a. Minimum setback of 9m from the boundary between ground level and up to four storeys. b. Upper-level setbacks are 12m above four storeys. Note: Private open space and balconies must comply with Part 4E of the NSW State Government's Apartment Design Guide.

The Proposal is not considered to be consistent with the abovementioned controls where it does not provide an appropriate transition to the residential properties to the west due to the minimal setbacks proposed. Therefore, the Proposal will require substantial amendments to provide increased setbacks from the western boundary and ensure an appropriate transition in height to the lower scale residential development to the west.

Transition in height down to heritage item

- For the reasons discussed above regarding the overall scale of the development when perceived from Rocky Point Road, the existing issue caused by the scale of the building fronting Rocky Point Road in relation to the heritage item at 211-219 Rocky Point Road remains unresolved. A significant reduction in the height of the tower element is required to ensure an appropriate transition to the nearby heritage items and to provide a scale of development that is compatible with Ramsgate.

Plaza/Through-site links

- The plaza has been increased in size and its visibility from and presentation to Targo Road has been improved. However, previous concerns regarding the limited visibility from Rocky Point Road remain unaddressed. Reconfiguration of the building footprints is required to ensure the plaza's visual prominence to foot traffic and passing trades.
- Consideration must also be given to the impact of wind tunnelling on the site. As such, a wind impact assessment should be undertaken to demonstrate that the walkways, width of plaza will not result in adverse wind impacts and ensure a usable and inviting public plaza.
- Consideration must also be given to pedestrian amenity and is to be addressed through the provision of continuous awnings for weather protection (Control 5 in 7.1.2.1 - Streetscape of GRDCP 2021). Awnings must be provided continuously and are to be of the same height and

design along the shop frontages to provide weather protection for pedestrians (Control 1 of 7.1.3.3 – Awnings of GRDCP 2021).

Deep soil landscaping

- In accordance with the Apartment Design Guide, deep soil zones on sites with a site area greater than 1,500sqm must have a minimum dimension of 6m to be counted within the deep soil zone calculation. The objective of providing deep soil zones is to allow for the growth of healthy trees and to promote management of water and air quality. In instances where a site is unable to provide the required deep soil zones (at least 7% of site area), then alternatives may be considered subject to the objective of the ADG being satisfied. The location of the site at the periphery of the business zone presents the opportunity for deep soil to be provided at the western side boundary, albeit it is acknowledged that it may not be possible for the site to provide 7% of its site area as deep soil zones in light of the proposed retail uses.
- Notwithstanding the above, the complete absence of deep soil landscaping within the concept scheme remains unaddressed and does not result in a positive design outcome for the public domain or surrounding residential properties.
- GRDCP 2021 provides objectives and controls to ensure basements within mixed use developments and residential flat buildings are designed to allow for adequate deep soil landscaping. These objectives and controls have been reproduced below.

6.*3.4 Basement Setbacks*

Objectives
(b) Provide opportunities for deep soil landscaping and new tree planting.
(c) Accommodate opportunities for on-site infiltration of stormwater.
(d) Accommodate landscaping that will contribute to the tree canopy of Georges River and provide shade and screening for residential development and reinforce a landscaped street character.
(e) Provide capacity to protect existing trees on site and provide capacity for new tree planting.

Controls
1. Basements are to be set back a minimum of 3m from the site boundaries
2. The basement setback areas are to be deep soil areas as defined in the Apartment Design Guide.
3. Driveways and driveway crossings are to be located a minimum of 1.5m from a side boundary.
4. Where a development site shares a boundary with a lower density zone (i.e., R2 or R3 zones), the minimum setback of the basement is to be 6m from the boundary with the lower density zone (refer to Figure 6 below).
5. The 6m basement setback at a zone boundary is to be planted to provide a vegetated landscape buffer between the development and adjoining lower density development. Planting is to include trees that achieve a minimum mature height of 6.0m. Under canopy planting is to include lower scale planting that provides a visual buffer between developments and creates the desired landscape buffer.

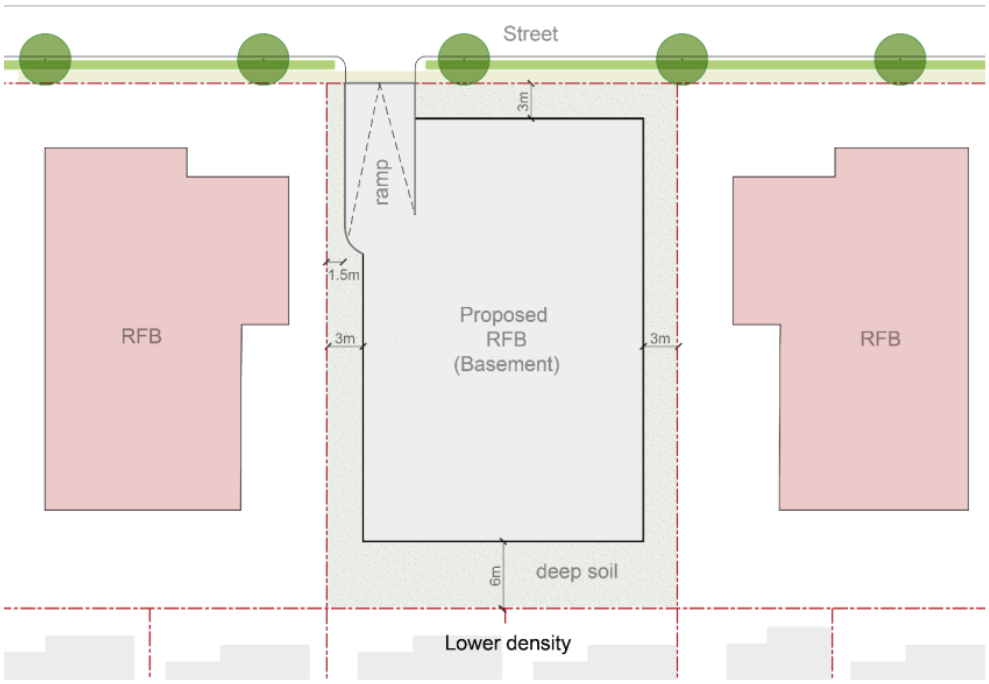


Figure 6: Application of the setbacks required for basements - with lower density interface

- Given the above, the Proposal is to be reconsidered and amended to provide a greater extent of deep soil landscaping. A reduction in the basement in accordance with the setbacks outlined above will be required to ensure deep soil landscaping can be provided on site.
- The use of planting on structures will only be considered as an alternative to deep soil landscaping if these areas are minimum 6 metres in dimension (i.e. at least 6 x 6 metres) in accordance with the ADG requirement to provide a conducive environment for the growth of mature canopy trees. Planting on structures with extensive soil depths of at least 1-1.5 metres are only acceptable when they are provided in conjunction with genuine deep soil zones on the western boundary.

Traffic

<u>Banning of Right turn from Rocky Point Road</u>

- Council acknowledges TfNSW's first preference to ban right-turn movement for southbound traffic on Rocky Point Road into Targo Road and Ramsgate Road 24/7 or banning right-turn movement in the afternoon peak only as a second preference. However, Council requires further traffic analysis and traffic counts to be conducted along Hastings Road, Burgess Street and Targo Road to confirm the impact this will have on local roads. To assist with comparing current data to pre-covid data, Council has existing counts conducted in 2019 on Burgess Street. See the Burgess St spreadsheet attached to the email.

<u>Ramsgate Road vehicle access</u>

- Prevent RT movement for residential access from Ramsgate Road:

  In regard to residential access from Ramsgate Road (westbound vehicles), Council prefers the construction of a median island (back-to-back kerb – approx. 500mm wide) to be built along Ramsgate Road from the junction of Ramsgate/Rocky Point Road to the intersection of Dalkeith Street/ Ramsgate Road with proposed left in left out traffic manoeuvres from Dalkeith Street. This will prevent illegal right-turn manoeuvres on Ramsgate Road for residential access. This may require Council's Local Traffic Committee approval.

However, consultation is to be undertaken with the businesses on the southern side of Ramsgate Road regarding permitting only left in left out of the carpark. This matter is to be discussed further following consultation with businesses.

- Potential vehicle detours

  Regarding residential access and commercial access for all westbound movement along Ramsgate Road and possible south bound movement from Rocky Point Road, further traffic analysis and traffic counts are to be conducted along Torwood Street, The Promenade, Lloyd Street and Dalkeith Street.

  Further concerns are raised over the existing intersection of The Promenade/ Torwood Street for potential residential detour in the future. i.e., RT movement from Torwood Street into The Promenade. Further analysis needs to be conducted to determine the impact of increased vehicle movement at this intersection and if potential changes to the intersection design are required.

<u>Ramsgate Rd/Targo Rd access out of The Promenade</u>

- Council supports the modifications to the intersection of The Promenade/ Targo Rd/ Ramsgate Rd into a signalised intersection to allow all movements out of The Promenade and Targo Road with NRT restrictions from Ramsgate Road into Targo Road.

<u>Impact of sight lines at existing pedestrian refuge</u>

- However, further analysis needs to be undertaken regarding the implications on the sight lines for pedestrians at the existing refuge island on Ramsgate Road (approximately 130m away), west of The Promenade; should there be an installation of traffic signals. There could be concerns for pedestrians with misjudging the speed of vehicles while crossing the road with the signals being only 130m away. Options to move the refuge further west on Ramsgate Road should be explored.

<u>Relocation of westbound bus stops</u>

- Council has no concerns with the proposed relocation of the bus stop on the northern side of Ramsgate Road as the existing area is signposted 'No Stopping' subject to approval from TfNSW and bus services. The applicant will need to bear the cost of relocating the bus stop and signage, and ensure that it is built to standards; including DDA obligations.

Access to neighbouring site

- The concern regarding vehicle access for the future development at 201-209 Rocky Point Road has been partially addressed by widening the opening on Ramsgate Road to allow for a pedestrian/vehicle shared way for future waste vehicle movements in the future. However, the Planning Proposal continues to rely on the existing 3m wide building setback on the adjoining sites to function as vehicle access for these adjoining sites.

  The widening of the entrance to service 201-209 Rocky Point Road also raises concerns regarding the viability of the active street frontage along Ramsgate Road. A small shopfront is sandwiched between two sets of two-way driveways. Ramsgate Road is a busy local road and considered to be a high exposure location. The dominance of driveways in the proposed scheme is inconsistent with the strategic intent of activating the Ramsgate Centre. In addition, the use of a vehicle/pedestrian shared way presents numerous challenges in terms of management and conflicts.

  A consolidation of vehicle access at the eastern site boundary needs to be explored to create the required access to 201-209 Rocky Point Road.

- Access Plan for Waste Collection

The Access Plan Diagram/swept path analysis will need to be amended for the Service Vehicles with the following provisions:

a) Analysis for a 10.5m waste service vehicle (and not an SRV); including the dimensions of the service vehicle as mentioned before and repeated again:

b) *Applicants should ensure height clearance of 4 metres can be provided, allowing for vehicle length of 10.5 metres and width of 2.5 metres (https://www.georgesriver.nsw.gov.au/Services/Waste/Waste-Management-Planning).*

c) Outline existing on-street parking space and potential parked vehicles during ingress/egress.

d) Outline the travel path/ lane on the roadway.

e) Outline swept path analysis in the property internally as well

Conclusion

Although it is acknowledged that some positive changes have been made to the concept, concerns remain across a number of key areas which warrant substantial changes to the overall proposal. The overall built form, height and setbacks will require significant amendments to adequately address the concerns raised in the letter and obtain support, particularly on a site specific merit basis .

A revised suite of documents should be submitted addressing the above, including any additional plans and diagrams that have been requested.

On hand to discuss and provide further clarification if required.

Yours sincerely

Linda Rodriguez
Principal, Planning and Places
T: +61 2 9272 5343
M: 0413 016 534
Linda.Rodriguez@wsp.com

Attachments:

- Preliminary Assessment Letter issued to Council 29 November 2021

Attachment A

Preliminary Assessment Letter issued to Council 29 November 2021

Our ref: **PS127427**

29 November 2021

Harkirat Singh
Senior Strategic Planner
Georges River Council
Email: hsingh@georgesriver.nsw.gov.au

Dear Harkirat

Preliminary Assessment Planning Proposal - 193-199 Rocky Point Road, 66-68 Ramsgate and 2-6 Targo Road Ramsgate

Elton Consulting, a WSP Company has been engaged by Georges River Council (Council) to undertake an independent assessment of a Planning Proposal for the site located at 193-199 Rocky Point Road, 66-68 Ramsgate Road and 2-6 Targo Road, Ramsgate, referred to as Ramsgate Village (the Site).

A preliminary assessment has been undertaken against the relevant strategic planning framework and site-specific context, to determine the Planning Proposal's strategic and site-specific planning merit.

The revised Planning Proposal provides a reduced overall height, reduced street wall height, reconfigured public square, increased setbacks to heritage buildings and redistribution of bulk across the site. The Planning Proposal no longer incorporates the land and buildings at 201-205 Rocky Point Road to address previous concerns relating to heritage and site isolation. Vehicle access has also been re-modelled in line with discussions undertaken with Transport for NSW (TfNSW).

Although it is acknowledged that the revised concept has undergone some significant changes from the previous submission, the density proposed by this Planning Proposal remains similar to the previous PP which was refused by the South Sydney Planning Panel (SSPP). It is considered that further refinement is required to deliver a place-based outcome that can be supported, particularly in relation to height and scale, landscaping, public domain, access and amenity.

Strategic merit

The current Planning Proposal generally provides strategic merit as follows:

- The Planning Proposal will revitalise the local centre in accordance with the planning priorities and objectives of the Greater Sydney Region Plan and the South and Eastern City District Plan, specifically:
    - It will support the delivery of a mixed-use development which will enable people to live close to jobs and services.
    - The Proposal includes the provision of publicly accessible open space and high-quality public domain to meet the needs of the community and future residents.
    - The proposed development would increase streetscape activation and social interaction through the provision of a new town square and public open space.
- The Planning Proposal is aligned with the Georges River Local Strategic Planning Statement, which identifies Ramsgate Local Centre as a centre to 'explore Centre expansion for jobs and/or housing'.

- The planning proposal is generally consistent with Council's Local Housing Strategy, where it provides for a range of housing options, in the form of 1, 2 and 3 bedroom apartments. There is no provision for affordable housing as part of the planning proposal. Affordable housing provisions should be included in any VPA for the site (monetary and/or works in kind).
- The Planning Proposal will offer a range of public benefits including a publicly accessible open space, public domain improvements, and traffic improvements.
- The Planning Proposal is supported by the Georges River Commercial Centres Strategy which identifies Ramsgate for opportunities to grow by more than 15% in commercial floor space to 2036. The Planning Proposal provides a mixed use development which will activate Ramsgate and allow it to transition into a local centre as envisaged.
- While the site is not located close to major transport links, the Proposal would increase the level of residential development within walking distance of centres with a supermarket, which is a desirable liveability outcome.

Notwithstanding the above, a preliminary assessment against the Draft Activating Our Centres Policy has been undertaken. The Proposal does not demonstrate consistency summarised as follows:

  - The Proposal complies with the current non-residential floor space requirement for the site however does not comply with the 0.5:1 non-residential above ground floor space
  - The maximum height is not considered to be compatible with Ramsgate and surrounding development that reflects a local centre and does not provide an appropriate transition to the residential zones to the west.
  - Requires refinement to ensure it makes a positive contribution to the public domain.

Refer to the site-specific merit discussion below for detailed assessment in relation to height and public domain concerns.

Site specific merit

Height

- The Proposal does not provide an appropriate street wall height to Rocky Point Road where it maintains a 6 storey street wall height along the entire length of the frontage which provides a poor public domain outcome. The Georges River DCP locality statement for Ramsgate recommends a 4 storey street wall height to define the street line. The street wall height is not considered to be compatible with Ramsgate and surrounding development that reflects a local centre.
- The overall height remains out of context with the surrounding development on Rocky Point Road, which provides a maximum height of 6 storeys. Specifically, the 8 storey overall height and 6 storey street wall height of the proposed development adjoining the low density residential properties to the west (Building B) is likely to result in adverse amenity impacts, with particular concerns raised for solar access and bulk and scale and provides a poor transition to the lower scale developments. The proposed local provision which would allow communal open space/lift above the maximum permissible height will further exacerbate the overall bulk and scale of the development.
- The scale of the building fronting Rocky Point Road should be afforded greater modulation to provide a more harmonious transition in the scale to the adjoining heritage item. This is also necessary to ensure that the occupants of 'Roma' are still afforded a reasonable amount of solar amenity. The independent heritage referral recommends improvement to the building envelope fronting Rocky Point Road to introduce improve transitions in scale to reduce height away from heritage items.

Public Square

- The Proposal includes provision of a public square however concerns are raised with the public domain interface due to limited visibility from Rocky Point Road and minimal pedestrian connections from Ramsgate Road.
- Furthermore, the solar access to the public square is limited and likely to result in underutilisation of this space and will provide a poor public domain outcome.
- The through-site link is required to be widened and re-position to enable direct sight lines to the square and vice versa. The square also needs to be increased in width to enable greater solar access and visibility to passing trades, especially along Rocky Point Road. The independent massing plan prepared by Architectus for the previous Planning Proposal illustrates a much more prominent public plaza.

Vehicle Access

- The Planning Proposal does not adequately address the issue of vehicle access for the 201-209 Rocky Point Road. The previous Kogarah DCP 2013 included a control which required a 5m laneway to be provided at the rear for vehicle access. The Planning Proposal relies on the 3m building setback of the heritage item to function as the vehicle access for these sites.
- When these sites are redeveloped as a mixed use development, the existing easement cannot accommodate MRVs required for back of house functions or Council's garbage collection vehicles. It will force garbage collection to occur on Rocky Point Road whereby creating a highly undesirable pedestrian experience with garbage bins taking up the footpath and disrupting the active street frontage, as well as significant impacts to the traffic on Rocky Point Road.

Deep soil landscaping

- The proposal includes new tree planting however provides no deep soil landscaping across the site where the basement footprint has been maximised to fill up the entire parcel boundary. The Apartment Design Guide (ADG) requires 7% of the site area to be provided as deep soil zones, with a minimum dimension of 6m for sites greater than 1,500sqm. A proposal with 0% deep soil zone will set a poor precedent for future developments across commercial centres in the LGA.
- It is suggested that the basement footprint be reduced, and deep soil landscaping incorporated along the western boundary to meet this minimum requirement.
- Furthermore, the concept scheme should commit to alternative green infrastructure solutions including but not limited to green roofs and green walls that incorporate rainwater harvest and reuse systems.

Traffic

- The proposed development would result in increased pressure on existing road network and public transport (bus) services and infrastructure, due to the development of 185 new dwellings, resulting in a subsequent population increase.
- The Proposal details offers to enter into negotiations for VPA for traffic improvements, such as the creation of controlled intersections at the Ramsgate and Rocky Point Road intersections with Targo Road.
- TfNSW will need to confirm whether the upgrades that form part of VPA are considered adequate to mitigate any adverse traffic impacts from the Proposal. Given the revitalisation of the local centre it is considered that Proposal has strategic merit subject to TfNSW confirming all traffic measures are appropriate.

Affordable Housing

- The proposal seeks to provide circa 185 new dwellings however no provision has been made for affordable housing despite a demonstrated need in the LGA as evidenced by Council's Local Housing Strategy
- Accordingly, commensurate affordable housing provision (monetary and / or Works in Kind) should form part of any negotiations and letter of offer to ensure sufficient provision for affordable housing in the LGA

Yours sincerely,

Senior Planning Associate
T: +61 2 9272 5343
M: 0413 016 534
Linda.Rodriguez@wsp.com

ATTACHMENT B

TfNSW LETTER

(Dated 1 February 2022)

1 February 2022

TfNSW Reference: SYD17/00417/05
Council ref: PP2021/0001

Gail Connolly
General Manager
Georges River Council
PO Box 205
Hurstville BC NSW 1481

Attention: Harkirat Singh

Dear Ms Connolly,

PLANNING PROPOSAL – 193-199 ROCKY POINT ROAD, 66-68 RAMSGATE ROAD & 2-6 TARGO ROAD, RAMSGATE

Transport for NSW (TfNSW) appreciates the opportunity to provide comment on the above proposal as referred to us in Council's correspondence dated 15 December 2021.

TfNSW has reviewed the submitted documentation and provides detailed comments on the proposal at **Attachment A** and modelling comments at **Attachment B** which are to be addressed prior to forwarding the proposal for Gateway Determination to the Department of Planning, Industry and Environment (DPIE).

Thank you for the opportunity to provide advice on the subject planning proposal. Should you have any questions or further enquiries in relation to this matter, Dipen Nathwani would be pleased to take your call on 0418 514 166 or email: development.sydney@transport.nsw.gov.au

Yours sincerely

James Hall
A/ Senior Manager Strategic Land Use
Land Use, Network & Place Planning

Transport for NSW
27-31 Argyle Street, Parramatta NSW 2150 | PO Box 973, Parramatta CBD NSW 2124
P 131782 | **W** transport.nsw.gov.au | ABN 18 804 239 602

Attachment A: Detailed Comments on Planning Proposal – 193-199 Rocky Point Road, 66-68 Ramsgate Road & 2-6 Targo Road, Ramsgate

Section/Page ref	Comment/suggestion
General	<u>Warrants Assessment for Traffic Signals</u> - Incomplete warrants assessment has been provided covering only two one-hour periods on separate days. TfNSW requires warrants to be met for four one-hour periods on a typical day prior to considering proposed traffic signals. - Historical traffic counts for the intersections of Rocky Point Rd/Targo Rd and Ramsgate Rd/Targo Rd/The Promenade may be available with Georges River Council. This could be used as a reference point for conducting a complete warrants assessment if new traffic counts cannot be undertaken currently. Historical SCATS data of the Rocky Point Rd/ Ramsgate Rd traffic signals may also be used as a reference point for conducting a complete warrants assessment.
General	<u>Rocky Point Rd/Targo Rd intersection</u> - TfNSW does not support proposed traffic signals permitting southbound right-turn movements on Rocky Point Road. TfNSW would require a No Right Turn (NRT) restriction for southbound traffic on the following grounds: - Increased road safety risks associated with conflict between right-turn (Rocky Point Rd into Targo Rd) and through movements (northbound on Rocky Point Rd), particularly under either a right-turn priority signpost control or filtered signal right-turn. - If signals were to be installed, the modelling indicates that the northbound queue on Rocky Point Rd would extend from Targo Rd past Ramsgate Rd and would have a detrimental impact on the network performance of the existing Rocky Point Rd and Ramsgate Rd signalised intersection. - The following two options could potentially be considered if the development was to be supported: - Retain existing priority-controlled intersection arrangement with a NRT restriction for southbound traffic; or - Upgrade to traffic signals with a NRT restriction for southbound traffic, subject to a satisfactory warrants assessment and SIDRA modelling to demonstrate no impact on the operation of the Rocky Point Rd/Ramsgate Rd intersection. - TfNSW understands that the above two options would require southbound traffic to take alternate routes via a wider local road network to access the development. This is a matter for consideration for Georges River Council.

	- Traffic signals (if justified) would require removal of parking from the eastern and western side of Rocky Point Rd. Georges River Council and the proponent will need to undertake early discussions with Bayside Council to seek support for the proposed removal of parking (i.e net loss of 4/5 parking spaces) on the eastern side of Rocky Point Rd. All consultation regarding removal of parking from Rocky Point Rd will need to be undertaken by Georges River Council (jointly with the proponent) before an Approval in Principle (AIP) for the traffic signals can be issued at the planning proposal stage.
General	<u>Ramsgate Rd/Targo Rd/The Promenade intersection</u> - TfNSW could consider supporting proposed traffic signals, subject to a satisfactory warrants assessment and SIDRA modelling to demonstrate no impact on the operation of the Rocky Point Rd/Ramsgate Rd intersection. - Proposed traffic signals to maintain existing NRT restriction for westbound traffic on Ramsgate Rd.
Traffic Report prepared by CBRK (dated October 2021), last page	<u>Ramsgate Rd Left-in site access</u> Due to the existing NRT restriction for westbound traffic on Ramsgate Rd at the Rocky Point Rd intersection, concern is raised that some motorists wishing to access the site from the east, may attempt to turn right into the development from the westbound carriageway of Ramsgate Rd. This would block westbound through traffic and could result in queues extending past Rocky Point Rd/Ramsgate Rd traffic signals. The proponent should be requested to investigate the potential for a concrete median of a suitable width and length on Ramsgate Rd to Council's requirements, to physically restrict right-turning movements into the site.
General	<u>Delivery of Traffic Signals</u> If the proposed Rocky Point Rd/Targo Rd traffic signals with NRT restriction for southbound traffic are supported by TfNSW, the proposal must be publicly exhibited. Further, the traffic signals must have the support of both Georges River and Bayside Councils and respective Local Traffic Committees at the planning proposal stage to provide certainty in the future. TfNSW is not supportive of deferral of this matter at the later stage (DA or Works Authorisation Deed).
Traffic Report prepared by CBRK (dated October 2021) Paragraph 3.19, page 13	The CBRK traffic report assumes that some 25% of Dan Murphy's customers would typically also shop at the supermarket. The assumed proportion appears to be high and evidence should be provided to support this assumption.
Traffic Report prepared by CBRK (dated October 2021)	The CBRK traffic report does not provide clear information on the directional distribution and distribution split adopted for the estimated traffic generation. The report should be updated accordingly.

SIDRA models	The review of SIDRA modelling scenarios for the upgraded Rocky Point Rd/ Targo Rd intersection indicates that proposed traffic signals have been modelled as a 3-approach intersection. TfNSW highlights that there is an existing shared driveway on the eastern side of Rocky Point Rd (in the Bayside Council LGA) directly opposite Targo Rd which will fall within the signalised intersection footprint. This driveway caters to reasonably high vehicle movements (Entry = 11 vehicles/ Exit = 18 vehicles in the weekday PM peak hour and Entry = 13 vehicles/ Exit = 13 vehicles in Saturday midday peak hour) as shown in Figures 2 & 3 of the CBRK traffic report. The traffic and safety impact of this existing driveway within the proposed traffic signals footprint has not been assessed in the CBRK traffic report.
Traffic Report prepared by CBRK (dated October 2021) Paragraph 3.21, page 14 Figure 4, page 29	The CBRK traffic report indicates that a total of some 14 on-street parking spaces on Rocky Point Rd will be removed to accommodate proposed traffic signals at Targo Rd. Figure 4 (page 29) of the report indicates that a total of some 22 parking spaces on Rocky Point Rd will be removed. It is understood that the net total loss of 14 parking spaces has been computed assuming that 8 parking spaces will be gained by the removal of existing midblock signalised crossing on Rocky Point Rd. TfNSW recommends that Figure 4 is updated to indicate the number of parking spaces gained for clarity purposes which would also assist the community in understanding the net loss of parking during public exhibition.
Traffic Report prepared by CBRK (dated October 2021) Figure 4, page 29 and SIDRA models	Figure 4 indicates that four (4) on-street parking spaces on Targo Rd (northern side) will be removed to accommodate proposed traffic signals at Rocky Point Rd. On the contrary, SIDRA modelling indicates that a separate 48m long left-turn lane will be provided on Targo Rd with the proposed traffic signals which is anticipated to result in a greater parking loss. Figure 4 should be updated to indicate the exact number of parking spaces estimated to be lost in accordance with lane lengths assumed in SIDRA modelling.
Traffic Report prepared by CBRK (dated October 2021) Paragraph 3.21, page 14	The CBRK traffic report indicates that all movements out of Targo Rd and The Promenade will be allowed at the Ramsgate Rd intersection i.e. right-turn movements out of both side roads will be permitted. The review of SIDRA models indicates that while right-turn movements out of Targo Rd are permitted they are banned out of The Promenade (as existing). The CBRK traffic report and SIDRA models should be updated to reflect the proposed traffic signal arrangements.
General	The proposal does not appear to clearly articulate potential basement level information (number of basement levels or depth of basement). This information is required for TfNSW to identify any issues. It's noted the information provided is conceptual. Transport for NSW reserves the rights to review and identify any issues as the design develops, and/or if design proposal is amended by the applicant.

General	If the proposed traffic signals at Rocky Point Rd/Targo Rd intersection with southbound NRT restriction are supported, the existing mid-block pedestrian signals (TCS 4177) located approximately 30m to the north will need to be de-commissioned simultaneously when the new traffic signals are commissioned. It should be noted that signalising the intersection of Targo Rd and Rocky Point Rd may result in undesirable see-through signal effects for north and south bound through movements due to the adjacent signalised intersection of Rocky Point Rd and Ramsgate Rd located approximately 100m away. If traffic signals were to be considered further at the intersection of Rocky Point Rd and Targo Rd, this road safety issue would need to be addressed in due course.
SIDRA models	SIDRA modelling indicates increased eastbound queues of right-turning vehicles from Ramsgate Rd to The Promenade (up to 75m) if the proposed traffic signals are implemented. The existing right-turn bay will need to be extended to cater for the extended traffic queues and an assessment of impact on sight lines at the existing pedestrian refuge to the west will need to be conducted.
General	It is noted that existing NRT restrictions at Rocky Point Rd/Ramsgate Rd traffic signals and Ramsgate Rd/Targo Rd intersection will be retained with the development. TfNSW seeks clarification on how any development traffic originating from the east on Ramsgate Rd is proposed to be catered for by the development.
General	There are existing bus stops on the departure sides of the Ramsgate Rd/Targo Rd/The Promenade intersection. The proposed traffic signals (if approved) would likely require relocation of these bus stops, especially westbound bus stop, due to proximity with the intersection. The relocation of bus stops, if necessary, will need to be undertaken at no cost to TfNSW.

ATTACHMENT B

TfNSW Operational Traffic Modelling Team Review and Comments

193-199 Rocky Point Road, 66-68 Ramsgate Road and 2-6 Targo Road, Ramsgate SIDRA network model

14/01/2022

The following sections comprise a summary of TfNSW operational traffic modelling team's review of the Ramsgate SIDRA network model and supporting document(s), prepared by Colston Budd Rogers & Kafes. The TfNSW operational traffic modelling team had compiled a list of modelling issues in September 2020 reviewing an earlier iteration of the model. Any outstanding issues which have not been adequately addressed has been raised again in this document.

The specific documents and traffic model(s) provided for the review are outlined in Table 1.

Table 1: Reviewed material

Material	File name	File description	Received date
SIDRA models	11771 Ramsgate Networks.sip9	SIDRA network file	21/12/2021
Report	20211215 - Appendix D - Traffic Report_PP-2021-6179.pdf	Traffic Report for Planning Proposal for Proposed Mixed Use Development, Ramsgate	21/12/2021

Table 2 and Table 3 provides a summary of review comments.

This review will use three categories to assess the scale of each issue:

1. **Major** – these issues need to be addressed before the model is used as they will have an impact on the model analysis and recommendations
2. **Medium** – these issues are usually localised and/or are likely to result in a small variation of the model analysis and recommendations but should not impact on the decision process.
3. **Minor** – these issues are minor and/or remote to the main area of investigation and should not impact on model analysis but should be considered for correction at subsequent updates.

This approach ensures that the review has captured the likely impact of issues identified and prioritises them to assist in formulating corrective actions. In isolation, medium or minor issues would not have considerable impacts on the modelling results, but combined they have the potential to impact the model performance.

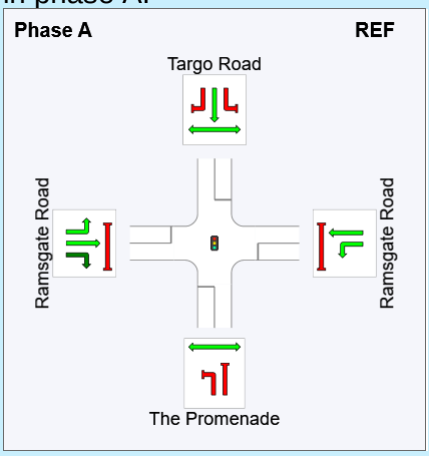
Table 2: Summary of review comments (report)

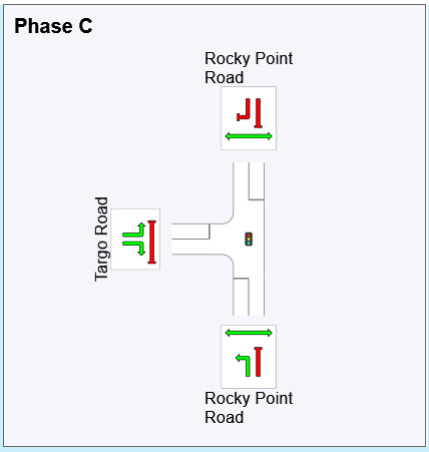
Item	Section	Comment	Priority
1	3.21	Given that significant portion of the traffic generated by the proposed development will utilise Targo Road, has any consideration been given to the potential traffic impacts on the intersection of Targo Road / Burgess Street as a result?	Minor
2	3.23	"The Promenade exceed 200 vehicles per hour in one direction in the weekday afternoon and Saturday peak periods. Future traffic flows along Targo Road will exceed 200 vehicles per hour in one direction in the weekday afternoon and Saturday peak periods. Thus the TfNSW warrant for the two proposed traffic signals is satisfied." The northbound surveyed traffic volumes along The Promenade exceed 300 during the peak hour. However, the warrant requires volumes to exceed 200 for 4 one-hour periods on an average day. Have any traffic surveys indicated this is the case (e.g. hourly flows averaged over a week)? Additionally, the traffic volumes along Targo Road at the Rocky Point Road / Targo Road intersection are significantly lower (<100) and so it should be noted that it will only warrant signalisation after including the traffic generated by the development.	Medium
3	3.29 – 2031 Plus Development	"the traffic signal controlled intersection of Rocky Point Road and Ramsgate Road would operate with average delays of less than 50 seconds per vehicle in the weekday afternoon peak period. This represents level of service D, a satisfactory level of intersection operation" While the PM delay results show that this intersection performs at a LoS of D, the DoS is at 99.9 percent (0.999). In accordance with Section 14.3 of the RMS modelling guidelines, only a Maximum Practical DOS of 90 percent is acceptable for signalised intersections. Many of the Future Network intersections have a DOS in excess of the RMS requirements and therefore the intersections are not anticipated to operate satisfactorily in the future.	Major
4	3.29 – 2031 Plus Development	Has any consideration been given to the queueing between intersections? The addition of the two proposed signals introduce long queues in the east approach of Ramsgate Road / Targo Road / The Promenade and in the south approach of Rocky Point Road / Targo Road. The 95%ile queue lengths of each exceed the distance to the upstream intersection.	Major
5	Attachment A – SIDRA	"In accordance with the RMS Traffic Modelling Guidelines (Feb 2013), existing conditions models must have a DOS less than	Major

	movement summaries	1.0. It is recommended that the existing conditions model is reassessed and recalibrated." This issue raised previously is still applicable as the DoS at the Rocky Point Road pedestrian crossing is 1.1 during the Saturday peak.	

Table 3: Summary of review comments (model)

Item	Section	Comment	Priority
1	General	The default walking speed of 1.3m/s has been used whereas the RMS modelling guidelines recommend 1.2m/s.	Minor
2	General	HV and Bus PCU values for all models have been left at the default of 1.65 whereas the RMS modelling guidelines recommend increasing this value to 2.	Minor
3	Extra Bunching	"Bunching has been applied incorrectly to the internal approaches to the intersections. It is noted that bunching is generally not required when intersections are in a network model, and if applied should generally only be applied to unsignalised intersections and the external approaches." The extra bunching parameter has still been applied in some intersections such as the Ramsgate Road / Targo Road / The Promenade intersection in the PM existing + development model.	Medium
4	Lane Geometry	In the weekend model, the west exit at the Ramsgate Road / Targo Road / The Promenade intersection has been modelled as a short lane whereas in the PM it has been modelled as a short lane with parking.	Minor
5	Lane Movements	"A review of the lane movement definitions flow proportions show multiple movements flowing into short lanes. For example, the north approach left turn of the Rocky Point Rd / Ramsgate Rd flows into the short departure lane on the east approach. It is recommended that where a single movement is occurring, the flow be moved to a full length lane rather than the short lane." This issue raised previously is still applicable at some locations e.g. the eastbound left turn, northbound left turn, southbound left turn at the Rocky Point Road / Ramsgate Road intersection	Minor
6	Pedestrians	Pedestrian volumes used for the future models appear to be the same as the existing models. Has the increase of pedestrian volumes as a result of the development as well as background growth been considered?	Medium

7	Priorities	A range of turning movements at signalised intersections are not giving way to pedestrians despite occurring in the same phase. Examples would be the proposed signalised intersections of Ramsgate Road / Targo Road and Rocky Point Road / Targo Road.	Minor
8	Vehicle Movement Data	"Signal Condition of Arrival Type 5, Highly Favourable, has been applied to the north approach to Ramsgate Road / Rocky Point Road. This would suggest that southbound traffic arrive at the intersection in a closely spaced platoon and clears the intersection. However, the use of this parameter is questionable given that the (2019) report states that: *"From our on-site observations, it is apparent there are currently extensive queues in the southbound direction along Rocky Point Road. The front of the queue was observed to occur south of Ramsgate Road (outside of the Ramsgate town centre). It was observed to generally extend past the Targo Road intersection in the assessed peak periods. This results in vehicles on Targo Road not able to enter Rocky Point Road to travel in the southbound direction."* It is recommended that this parameter is not used as this has the potential to reduce the queue lengths on the north approach and therefore the impact that this has on the operation of the Targo Road west approach." This issue raised previously is still applicable as the signal coordination settings remain unchanged.	Medium
9	Phasing & Timing	At the Ramsgate Road / Targo Road / The Promenade intersection, it appears the southbound through movement is occurring concurrently with a number of conflicting movements in phase A.  Similarly, phase C at the Rocky Point Road / Targo Road intersection has the northbound left turn occurring with the conflicting pedestrian movement.	Medium

			
10	Cycle Length	“Future Network Upgrade models have been operated with a User Given Cycle Time.” This issue raised previously is still applicable in the 2031 Base Models.	Minor
11	Signal Offsets	The offset values between intersections have been kept at the default of 0s. Has this parameter been considered in optimising the network?	Medium

ATTACHMENT C

MINUTE OF MEETING ON 4 MARCH 2022

TIME&
PLACE

SUBJECT

RAMSGATE PLANNING PROPOSAL DISCUSSION & PROPONENT RESPONSE

DATE	PLACE	CHAIRPERSON	SCRIBE
11am – 12:30pm 04.03.2022	Via Teams	Kim Zoljalali	Kim Zoljalali Vijay Prahbu Kirraly Northey

ATTENDEES		COMPANY	CONTACT
Linda Rodriguez	LR	WSP	Linda.Rodriguez@wsp.com
Ellen Shannon	ES	WSP	Ellen.Shannon@wsp.com
Catherine McMahon	CM	Georges River Council (Council)	Cmcmahon@georgesriver.nsw.gov.au
Harkirat Singh	HK	Georges River Council	HSingh@georgesriver.nsw.gov.au
Henry Huynh	HH	Georges River Council	Hhuynh@georgesriver.nsw.gov.au
Stephanie Lum	SL	Georges River Council	Stephanie.Lum@georgesriver.nsw.gov.au
James Hall	JH	TfNSW	James.Hall@transport.nsw.gov.au
Bayzid Khan	BK	TfNSW	Bayzid.Khan@transport.nsw.gov.au
Evan Papadopoulos	EP	Time & Place (T&P)	Evan.papadopoulos@timeplace.com.au
Kim Zoljalali	KZ	Time & Place	Kim.zoljalali@timeplace.com.au
Marcus Lewin	ML	Time & Place	Marcus.lewin@timeplace.com.au
Pierre Abrahamse	PA	Woolworths	Pabrahamse@woolworths.com.au
Nick Steele	NS	Woolworths	Nsteele1@woolworths.com.au
Tim Rogers	TR	CBRK	Tim.rogers@cbrk.com.au
Adam Haddow	AH	SJB	Ahaddow@sjb.com.au
Ben Charlton	BC	SJB	BCharlton@sjb.com.au
Emily Wombwell	EW	SJB	EWombwell@sjb.com.au
Rohit Iyer	RI	Landform Studios	Riyer@landform-studios.com
Vijay Prabhu	VP	Urbis	Vprabhu@urbis.com.au
Kirraly Northey	KN	Urbis	Knorthey@urbis.com.au

APOLOGIES		COMPANY	CONTACT
Andrew Harvey	AH	Urbis	aharvey@urbis.com.au
Hayley Barnes	HB	Georges River Council	HBarnes@georgesriver.nsw.gov.au

NOTES

Purpose:
To document meeting held by Time & Place with Council, TfNSW, Woolworths and Consultants to present responses to WSP's feedback regarding the Planning Proposal and to discuss Transport and Traffic issues.

&

ITEM NUMBER	DESCRIPTION	WHO	BY WHEN
INTRODUCTION			
1.1	Intention of meeting set out by Time & Place to present the team's response to WSP's preliminary assessment and to discuss traffic issues to better understand both TfNSW and Council's position on various items.		
PRPONENT RESPONSE TO WSP PRELIMINARY ASSESSMENT			
2.1	STREET WALL – SJB presented the design response which lowers the majority of street wall from 6 storeys to 4 storeys. – WSP requested dimensioned plans to better understand extent of setbacks above street wall heights.	SJB/ T&P	11/03
2.2	OVERALL HEIGHT – SJB explained key design moves made to mitigate impact of height (street walls, setbacks, and modulated stepping down of proposed envelope toward neighbours). – No further comment was made by WSP and Council.		
2.3	TRANSITION TO HERITAGE – SJB explained that the future development of 201-209 Rocky Point Rd should be considered when looking at the transition to the heritage neighbour and presented corresponding diagrams and steps the Proponent team has taken to achieve this. – No further comment was made by WSP and Council.		
2.4	THROUGH-SITE LINKS – SJB presented precedent study and prepared additional photo montages to better illustrate the intent of the site-through links and to explain the rationale behind maintaining a protected plaza. – WSP requested SJB undertake prevailing wind analysis of the plaza to ensure it is a highly useable space with good amenity.	T&P	25/03
2.5	SOLAR ACCESS – SJB presented the design response which widens the plaza to increase solar in midwinter from 38% to 50% for 2 hours, with a total of 75% of the plaza receiving sunlight which is significant improvement from the 65% sunlight received for the previous plaza design submitted with the Planning Proposal. – No further comment was made by WSP and Council.		

ITEM NUMBER	DESCRIPTION	WHO	BY WHEN
2.6	ACCESS TO NEIGHBOURING SITE – SJB explained Proponent's response to WSP's comments by offering an easement on the Planning Proposal site to enable Council waste vehicles to enter the neighbouring site using their existing vehicle access. – Council questioned vehicles accessing the neighbouring site, not just waste vehicles. o CBRK responded by providing further explanation that the swept path analysis was undertaken on a Council sized waste vehicle. o CBRK also noted the following: – vehicle movement within the neighbouring site is the responsibility of the future development – the proposed solution will maintain vehicle access to 201-209 Rocky Point Rd as per the existing condition – the proposed easement will ensure Council garbage trucks can also access the neighbouring site via the existing service lane o No further comments made by WSP and Council.		
2.7	DEEP SOIL / WESTERN BOUNDARY – SJB/Landform provided precedent examples of successful developments with extensive on structure planting and proposed landscaping treatment of the western boundary to mitigate impact to neighbour. Landform also noted that the species chosen for perimeter planting will provide high quality landscape amenity and will thrive in this location. o Council/WSP flagged that a 1.5m setback is inadequate for canopy trees. o WSP mentioned preference is to have deep soil. – SJB also presented solar testing for neighbouring properties. o No further comment from WSP and Council.		
2.8	AFFORDABLE HOUSING – T&P explained to WSP/Council that discussions have occurred with Council's VPA Officer (Nerida Stores). Based on the discussions with Council's VPA officer, and because there is no adopted Affordable Housing Contributions Scheme that applies to Ramsgate, the proponent will address provision of traffic infrastructure as part of the VPA offer instead of affordable housing. – No further comment from WSP/Council.		

ITEM NUMBER	DESCRIPTION	WHO	BY WHEN

TRANSPORT & TRAFFIC ISSUE DISCUSSION

3.1 TRAFFIC SIGNALS AT TARGO & ROCKY POINT ROAD

- CBRK noted that the Proponent is not opposed to banning Right Hand Turns (RHT) during peak hours and maintaining the right turn off peak, flagging that if we ban the right turn it will just push traffic further down Rocky Point which will have a similar impact.
- Council noted they would consider this solution but would require further analysis on traffic counts on Hasting Street, Burgess Road and Targo Road if this is a proposed detour.
- Council's preference is not to divert traffic.
- TfNSW highlighted they need advice from Council for further consideration – Council to email TfNSW with its assessment/view.

3.2 RAMSGATE ROAD MEDIAN STRIP

- Council's concern is westbound movement on Ramsgate Rd.
- CBRK flagged that in order to provide the requested median strip, lane narrowing is required, recommending a 600mm wide median.
- Council to advise on its position on: median width & extent of median
    - Council noted they will need to speak to the property owners if the median is to be extended beyond the proposal

3.3 LOSS OF PARKING

- Council requires written advice from Bayside Council.
  Note: it is understood that Bayside Council will provide written advice once contacted by Georges River Council for comment. At the time of issuing these minutes, it is understood that Georges River Council is yet to seek formal written advice from Bayside Council on this matter.

3.4 NEXT STEPS

- Council to respond formally in writing to TfNSW.
- Council noted they have not completed their assessment yet as they require more data. Details of the required data will be provided in WSP's letter response to the proponents expected in w/c 14 March 2022.
- TfNSW to share updated traffic counts to CBRK.

ITEM NUMBER	DESCRIPTION	WHO	BY WHEN
OTHER ITEMS			
4.1	CONCLUSION - As a concluding remark, WSP noted that overall, the proposal is moving in the right direction.		

ATTACHMENT D

SIDRA MOVEMENT SUMMARIES

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 11771 Ramsgate Network

Template: Movement Summaries

Site: 101 [Thu PM EX - The Promenade - Torwood Street (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	5	2.0	5	2.0	0.089	5.1	LOS A	0.1	0.4	0.04	0.03	0.04	49.2
2	T1	158	2.0	158	2.0	0.089	0.0	LOS A	0.1	0.4	0.04	0.03	0.04	49.4
3	R2	5	2.0	5	2.0	0.089	5.5	LOS A	0.1	0.4	0.04	0.03	0.04	48.7
Approach		168	2.0	168	2.0	0.089	0.4	NA	0.1	0.4	0.04	0.03	0.04	49.4
East: Torwood Street														
4	L2	32	2.0	32	2.0	0.039	5.4	LOS A	0.1	1.0	0.36	0.56	0.36	45.9
5	T1	5	2.0	5	2.0	0.039	5.2	LOS A	0.1	1.0	0.36	0.56	0.36	45.9
6	R2	5	2.0	5	2.0	0.039	7.2	LOS A	0.1	1.0	0.36	0.56	0.36	43.2
Approach		42	2.0	42	2.0	0.039	5.6	LOS A	0.1	1.0	0.36	0.56	0.36	45.7
North: The Promenade														
7	L2	5	2.0	5	2.0	0.144	4.9	LOS A	0.0	0.3	0.02	0.02	0.02	49.0
8	T1	263	2.0	263	2.0	0.144	0.0	LOS A	0.0	0.3	0.02	0.02	0.02	49.8
9	R2	5	2.0	5	2.0	0.144	5.2	LOS A	0.0	0.3	0.02	0.02	0.02	48.3
Approach		274	2.0	274	2.0	0.144	0.2	NA	0.0	0.3	0.02	0.02	0.02	49.7
West: Torwood Street														
10	L2	11	2.0	11	2.0	0.022	5.0	LOS A	0.1	0.5	0.30	0.54	0.30	43.4
11	T1	5	2.0	5	2.0	0.022	5.2	LOS A	0.1	0.5	0.30	0.54	0.30	46.0
12	R2	5	2.0	5	2.0	0.022	7.3	LOS A	0.1	0.5	0.30	0.54	0.30	45.5
Approach		21	2.0	21	2.0	0.022	5.6	LOS A	0.1	0.5	0.30	0.54	0.30	45.0
All Vehicles		505	2.0	505	2.0	0.144	0.9	NA	0.1	1.0	0.06	0.09	0.06	48.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM EX - Ramsgate Road - Targo Road - The Promenade (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	153	2.0	153	2.0	0.132	6.5	LOS A	0.5	3.6	0.25	0.53	0.25	48.6
Approach		153	2.0	153	2.0	0.132	6.5	LOS A	0.5	3.6	0.25	0.53	0.25	48.6
East: Ramsgate Road														
4	L2	11	2.0	11	2.0	0.082	5.6	LOS A	0.0	0.0	0.00	0.04	0.00	58.1
5	T1	679	2.0	679	2.0	0.291	0.3	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		689	2.0	689	2.0	0.291	0.4	NA	0.0	0.0	0.00	0.01	0.00	59.7
North: Targo Road														
7	L2	58	2.0	58	2.0	0.105	9.4	LOS A	0.3	2.5	0.61	0.81	0.61	26.4
Approach		58	2.0	58	2.0	0.105	9.4	LOS A	0.3	2.5	0.61	0.81	0.61	26.4
West: Ramsgate Road														
10	L2	21	2.0	21	2.0	0.393	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	59.4
11	T1	700	2.0	700	2.0	0.393	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.4
12	R2	300	2.0	300	2.0	0.470	12.4	LOS A	2.7	19.1	0.70	0.99	1.04	42.7
Approach		1021	2.0	1021	2.0	0.470	3.9	NA	2.7	19.1	0.21	0.30	0.30	53.3
All Vehicles		1921	2.0	1921	2.0	0.470	3.0	NA	2.7	19.1	0.15	0.23	0.20	54.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM EX - Ramsgate Road - Dalkeith Street (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Dalkeith Street														
1	L2	26	2.0	26	2.0	0.077	6.0	LOS A	0.2	1.6	0.52	0.63	0.52	39.1
3	R2	5	2.0	5	2.0	0.077	31.7	LOS C	0.2	1.6	0.52	0.63	0.52	39.1
Approach		32	2.0	32	2.0	0.077	10.3	LOS A	0.2	1.6	0.52	0.63	0.52	39.1
East: Ramsgate Road														
4	L2	16	2.0	16	2.0	0.185	5.5	LOS A	0.0	0.0	0.00	0.03	0.00	56.7
5	T1	689	2.0	689	2.0	0.185	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	58.8
Approach		705	2.0	705	2.0	0.185	0.1	NA	0.0	0.0	0.00	0.01	0.00	58.5
West: Ramsgate Road														
11	T1	732	2.0	732	2.0	0.213	0.4	LOS A	4.9	35.2	0.07	0.03	0.07	56.6
12	R2	32	2.0	32	2.0	0.213	9.7	LOS A	4.9	35.2	0.17	0.06	0.17	49.7
Approach		763	2.0	763	2.0	0.213	0.8	NA	4.9	35.2	0.08	0.03	0.08	55.6
All Vehicles		1500	2.0	1500	2.0	0.213	0.7	NA	4.9	35.2	0.05	0.03	0.05	55.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM EX - Rocky Point Road - Ramsgate Road (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase C
Input Phase Sequence: A, B*, C
Output Phase Sequence: A, B*, C
(* Variable Phase)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	353	2.0	353	2.0	0.256	9.3	LOS A	5.5	38.9	0.29	0.66	0.29	46.2
2	T1	789	2.0	789	2.0	* 0.805	27.5	LOS B	31.4	223.9	0.82	0.75	0.85	31.9
Approach		1142	2.0	1142	2.0	0.805	21.9	LOS B	31.4	223.9	0.66	0.73	0.67	35.3
East: Ramsgate Road														
4	L2	37	2.0	37	2.0	0.960	90.1	LOS F	13.7	97.3	1.00	1.13	1.61	24.6
5	T1	353	2.0	353	2.0	* 0.960	84.0	LOS F	15.5	110.6	1.00	1.13	1.60	16.1
Approach		389	2.0	389	2.0	0.960	84.6	LOS F	15.5	110.6	1.00	1.13	1.60	17.1
North: Rocky Point Road														
7	L2	63	2.0	63	2.0	0.742	16.4	LOS B	18.8	133.6	0.55	0.52	0.55	44.2
8	T1	1232	2.0	1230	2.0	0.742	10.8	LOS A	19.1	136.0	0.54	0.51	0.54	46.2
Approach		1295	2.0	1293 N1	2.0	0.742	11.1	LOS A	19.1	136.0	0.54	0.51	0.54	46.1
West: Ramsgate Road														
10	L2	42	2.0	42	2.0	0.308	30.5	LOS C	9.0	64.3	0.71	0.64	0.71	12.3
11	T1	316	2.0	316	2.0	0.882	38.2	LOS C	21.8	155.0	0.83	0.84	0.90	28.6
12	R2	347	2.0	347	2.0	* 0.882	63.5	LOS E	21.8	155.0	1.00	1.15	1.20	21.8
Approach		705	2.0	705	2.0	0.882	50.2	LOS D	21.8	155.0	0.90	0.98	1.04	24.3
All Vehicles		3532	2.0	3530 N1	2.0	0.960	30.5	LOS C	31.4	223.9	0.70	0.74	0.80	31.7

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

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM EX - Rocky Point Road - Targo Road (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	21	2.0	21	2.0	0.231	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	57.6
2	T1	811	2.0	811	2.0	0.231	0.3	LOS A	0.2	1.7	0.02	0.02	0.02	55.6
3	R2	3	0.0	3	0.0	0.231	23.9	LOS B	0.2	1.7	0.04	0.00	0.05	55.5
Approach		835	2.0	835	2.0	0.231	0.5	NA	0.2	1.7	0.02	0.02	0.02	55.6
East: Driveway														
4	L2	16	0.0	16	0.0	0.322	22.1	LOS B	0.7	5.1	0.91	0.99	1.03	20.5
5	T1	1	0.0	1	0.0	0.322	150.1	LOS F	0.7	5.1	0.91	0.99	1.03	20.5
6	R2	3	0.0	3	0.0	0.322	217.6	LOS F	0.7	5.1	0.91	0.99	1.03	20.5
Approach		20	0.0	20	0.0	0.322	59.7	LOS E	0.7	5.1	0.91	0.99	1.03	20.5
North: Rocky Point Road														
7	L2	8	0.0	8	0.0	0.510	3.3	LOS A	0.0	0.0	0.00	0.01	0.00	56.5
8	T1	1295	2.0	1295	2.0	0.510	0.4	LOS A	1.0	6.8	0.05	0.02	0.08	49.1
9	R2	26	2.0	26	2.0	0.510	9.8	LOS A	1.0	6.8	0.11	0.03	0.17	41.6
Approach		1329	2.0	1329	2.0	0.510	0.6	NA	1.0	6.8	0.05	0.02	0.08	49.4
West: Targo Road														
10	L2	16	2.0	16	2.0	1.190	417.0	LOS F	7.1	50.8	1.00	1.69	3.10	1.5
12	R2	16	2.0	16	2.0	1.190	605.3	LOS F	7.1	50.8	1.00	1.69	3.10	1.5
Approach		32	2.0	32	2.0	1.190	511.1	LOS F	7.1	50.8	1.00	1.69	3.10	1.5
All Vehicles		2216	2.0	2216	2.0	1.190	8.4	NA	7.1	50.8	0.06	0.05	0.11	21.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 1 [Thu PM EX - Rocky Point Road (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

Site Category: (None)
Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, B
Output Phase Sequence: A, B

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
2	T1	826	2.0	824	2.0	* 0.459	0.6	LOS A	1.4	10.2	0.04	0.03	0.04	52.9
Approach		826	2.0	824 N1	2.0	0.459	0.6	LOS A	1.4	10.2	0.04	0.03	0.04	52.9
North: Rocky Point Road														
8	T1	1321	2.0	1321	2.0	0.441	0.4	LOS A	1.3	9.5	0.04	0.03	0.04	55.0
Approach		1321	2.0	1321	2.0	0.441	0.4	LOS A	1.3	9.5	0.04	0.03	0.04	55.0
All Vehicles		2147	2.0	2145 N1	2.0	0.459	0.5	LOS A	1.4	10.2	0.04	0.03	0.04	54.5

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

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM EX - Rocky Point Road - Hastings Street (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	11	2.0	11	2.0	0.006	4.7	LOS A	0.0	0.0	0.00	0.56	0.00	31.2
2	T1	816	2.0	814	2.0	0.426	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach		826	2.0	824 N1	2.0	0.426	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.6
North: Rocky Point Road														
8	T1	1311	2.0	1311	2.0	0.354	0.3	LOS A	0.4	2.8	0.03	0.01	0.04	59.2
9	R2	11	2.0	11	2.0	0.354	15.6	LOS B	0.4	2.8	0.06	0.01	0.08	58.6
Approach		1321	2.0	1321	2.0	0.354	0.4	NA	0.4	2.8	0.03	0.01	0.04	59.2
West: Hastings Street														
10	L2	11	2.0	11	2.0	0.355	27.1	LOS B	1.0	7.4	0.95	1.02	1.09	20.6
12	R2	11	2.0	11	2.0	0.355	131.8	LOS F	1.0	7.4	0.95	1.02	1.09	8.6
Approach		21	2.0	21	2.0	0.355	79.5	LOS F	1.0	7.4	0.95	1.02	1.09	15.4
All Vehicles		2168	2.0	2166 N1	2.0	0.426	1.1	NA	1.0	7.4	0.03	0.02	0.03	57.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM EX - Burgess Street - Hastings Street (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
2	T1	16	2.0	16	2.0	0.018	4.9	LOS A	0.1	0.6	0.11	0.54	0.11	50.2
3	R2	5	2.0	5	2.0	0.018	7.8	LOS A	0.1	0.6	0.11	0.54	0.11	33.0
3u	U	1	2.0	1	2.0	0.018	9.3	LOS A	0.1	0.6	0.11	0.54	0.11	33.0
Approach		22	2.0	22	2.0	0.018	5.8	LOS A	0.1	0.6	0.11	0.54	0.11	48.4
East: Hastings Street														
4	L2	16	2.0	16	2.0	0.030	5.2	LOS A	0.1	1.0	0.10	0.60	0.10	40.0
6	R2	21	2.0	21	2.0	0.030	7.8	LOS A	0.1	1.0	0.10	0.60	0.10	50.1
6u	U	1	2.0	1	2.0	0.030	9.3	LOS A	0.1	1.0	0.10	0.60	0.10	40.0
Approach		38	2.0	38	2.0	0.030	6.8	LOS A	0.1	1.0	0.10	0.60	0.10	47.7
North: Burgess Street														
7	L2	37	2.0	37	2.0	0.041	5.1	LOS A	0.2	1.4	0.05	0.53	0.05	51.3
8	T1	21	2.0	21	2.0	0.041	4.8	LOS A	0.2	1.4	0.05	0.53	0.05	51.3
9u	U	1	2.0	1	2.0	0.041	9.2	LOS A	0.2	1.4	0.05	0.53	0.05	54.3
Approach		59	2.0	59	2.0	0.041	5.1	LOS A	0.2	1.4	0.05	0.53	0.05	51.4
All Vehicles		119	2.0	119	2.0	0.041	5.7	LOS A	0.2	1.4	0.08	0.56	0.08	49.6

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

Site: 101 [Thu PM EX - Targo Road - Burgess Street (Site Folder: Weekday Afternoon Existing)]

Network: 1 [Weekday Afternoon Existing (Network Folder: Existing)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
1b	L3	1	2.0	1	2.0	0.003	5.5	LOS A	0.0	0.1	0.13	0.50	0.13	44.2
2	T1	1	2.0	1	2.0	0.003	3.4	LOS A	0.0	0.1	0.13	0.50	0.13	44.2
3	R2	1	2.0	1	2.0	0.003	4.8	LOS A	0.0	0.1	0.13	0.50	0.13	44.2
Approach		3	2.0	3	2.0	0.003	4.6	LOS A	0.0	0.1	0.13	0.50	0.13	44.2
East: Targo Road														
4	L2	5	2.0	5	2.0	0.025	4.6	LOS A	0.1	0.6	0.04	0.52	0.04	45.5
4a	L1	11	2.0	11	2.0	0.025	3.7	LOS A	0.1	0.6	0.04	0.52	0.04	39.5
6	R2	16	2.0	16	2.0	0.025	4.9	LOS A	0.1	0.6	0.04	0.52	0.04	39.5
Approach		32	2.0	32	2.0	0.025	4.4	LOS A	0.1	0.6	0.04	0.52	0.04	41.6
North: Burgess Street														
7	L2	16	2.0	16	2.0	0.027	4.6	LOS A	0.1	0.9	0.06	0.47	0.06	33.8
8	T1	1	2.0	1	2.0	0.027	0.0	LOS A	0.1	0.9	0.06	0.47	0.06	45.8
9a	R1	32	2.0	32	2.0	0.027	3.7	LOS A	0.1	0.9	0.06	0.47	0.06	33.8
Approach		48	2.0	48	2.0	0.027	3.9	NA	0.1	0.9	0.06	0.47	0.06	34.7
SouthWest: Targo Road														
30a	L1	16	2.0	16	2.0	0.016	4.5	LOS A	0.1	0.4	0.02	0.52	0.02	35.2
32a	R1	11	2.0	11	2.0	0.016	3.6	LOS A	0.1	0.4	0.02	0.52	0.02	35.2
32b	R3	2	2.0	2	2.0	0.016	5.2	LOS A	0.1	0.4	0.02	0.52	0.02	44.4
Approach		28	2.0	28	2.0	0.016	4.2	NA	0.1	0.4	0.02	0.52	0.02	37.3
All Vehicles		112	2.0	112	2.0	0.027	4.1	NA	0.1	0.9	0.04	0.50	0.04	38.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 11771 Ramsgate Network

Template: Movement Summaries

Site: 101 [Sat MD EX - The Promenade - Torwood Street (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	5	2.0	5	2.0	0.196	4.7	LOS A	0.0	0.1	0.00	0.01	0.00	49.4
2	T1	368	2.0	368	2.0	0.196	0.0	LOS A	0.0	0.1	0.00	0.01	0.00	49.9
3	R2	1	2.0	1	2.0	0.196	5.5	LOS A	0.0	0.1	0.00	0.01	0.00	48.9
Approach		375	2.0	375	2.0	0.196	0.1	NA	0.0	0.1	0.00	0.01	0.00	49.9
East: Torwood Street														
4	L2	16	2.0	16	2.0	0.029	5.3	LOS A	0.1	0.7	0.36	0.57	0.36	45.7
5	T1	5	2.0	5	2.0	0.029	6.4	LOS A	0.1	0.7	0.36	0.57	0.36	45.7
6	R2	5	2.0	5	2.0	0.029	8.7	LOS A	0.1	0.7	0.36	0.57	0.36	42.9
Approach		26	2.0	26	2.0	0.029	6.2	LOS A	0.1	0.7	0.36	0.57	0.36	45.3
North: The Promenade														
7	L2	11	2.0	11	2.0	0.129	5.2	LOS A	0.1	0.5	0.03	0.04	0.03	48.8
8	T1	226	2.0	226	2.0	0.129	0.1	LOS A	0.1	0.5	0.03	0.04	0.03	49.6
9	R2	5	2.0	5	2.0	0.129	6.1	LOS A	0.1	0.5	0.03	0.04	0.03	48.1
Approach		242	2.0	242	2.0	0.129	0.4	NA	0.1	0.5	0.03	0.04	0.03	49.5
West: Torwood Street														
10	L2	5	2.0	5	2.0	0.022	5.8	LOS A	0.1	0.5	0.48	0.63	0.48	42.1
11	T1	5	2.0	5	2.0	0.022	6.4	LOS A	0.1	0.5	0.48	0.63	0.48	45.3
12	R2	5	2.0	5	2.0	0.022	8.7	LOS A	0.1	0.5	0.48	0.63	0.48	44.8
Approach		16	2.0	16	2.0	0.022	7.0	LOS A	0.1	0.5	0.48	0.63	0.48	44.4
All Vehicles		659	2.0	659	2.0	0.196	0.6	NA	0.1	0.7	0.04	0.06	0.04	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX - Ramsgate Road - Targo Road - The Promenade (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	347	2.0	347	2.0	0.300	7.3	LOS A	1.4	9.7	0.29	0.55	0.29	48.5
Approach		347	2.0	347	2.0	0.300	7.3	LOS A	1.4	9.7	0.29	0.55	0.29	48.5
East: Ramsgate Road														
4	L2	16	2.0	16	2.0	0.084	5.6	LOS A	0.0	0.0	0.00	0.06	0.00	57.3
5	T1	695	2.0	695	2.0	0.300	0.4	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		711	2.0	711	2.0	0.300	0.5	NA	0.0	0.0	0.00	0.01	0.00	59.7
North: Targo Road														
7	L2	63	2.0	63	2.0	0.100	8.5	LOS A	0.3	2.4	0.55	0.78	0.55	27.7
Approach		63	2.0	63	2.0	0.100	8.5	LOS A	0.3	2.4	0.55	0.78	0.55	27.7
West: Ramsgate Road														
10	L2	37	2.0	37	2.0	0.359	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	59.2
11	T1	621	2.0	621	2.0	0.359	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.2
12	R2	221	2.0	221	2.0	0.357	11.6	LOS A	1.7	12.3	0.67	0.93	0.85	43.6
Approach		879	2.0	879	2.0	0.359	3.2	NA	1.7	12.3	0.17	0.26	0.22	54.3
All Vehicles		2000	2.0	2000	2.0	0.359	3.1	NA	1.7	12.3	0.14	0.24	0.16	54.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX - Ramsgate Road - Dalkeith Street (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Dalkeith Street														
1	L2	26	2.0	26	2.0	0.297	8.2	LOS A	0.7	5.2	0.65	0.80	0.75	32.6
3	R2	26	2.0	26	2.0	0.297	31.3	LOS C	0.7	5.2	0.65	0.80	0.75	32.6
Approach		53	2.0	53	2.0	0.297	19.7	LOS B	0.7	5.2	0.65	0.80	0.75	32.6
East: Ramsgate Road														
4	L2	32	2.0	32	2.0	0.188	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	56.4
5	T1	684	2.0	684	2.0	0.188	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	57.8
Approach		716	2.0	716	2.0	0.188	0.3	NA	0.0	0.0	0.00	0.03	0.00	57.5
West: Ramsgate Road														
11	T1	679	2.0	679	2.0	0.192	0.3	LOS A	0.6	4.1	0.06	0.02	0.06	57.4
12	R2	21	2.0	21	2.0	0.192	9.7	LOS A	0.6	4.1	0.12	0.04	0.12	50.2
Approach		700	2.0	700	2.0	0.192	0.6	NA	0.6	4.1	0.06	0.02	0.06	56.6
All Vehicles		1468	2.0	1468	2.0	0.297	1.1	NA	0.7	5.2	0.05	0.05	0.05	53.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX - Rocky Point Road - Ramsgate Road (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase C
Input Phase Sequence: A, B*, C
Output Phase Sequence: A, B*, C
(* Variable Phase)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	279	2.0	279	2.0	0.221	11.6	LOS A	5.4	38.2	0.36	0.68	0.36	43.7
2	T1	647	2.0	647	2.0	0.786	33.6	LOS C	27.4	195.2	0.88	0.79	0.90	28.8
Approach		926	2.0	926	2.0	0.786	27.0	LOS B	27.4	195.2	0.72	0.76	0.74	32.1
East: Ramsgate Road														
4	L2	58	2.0	58	2.0	* 0.766	62.6	LOS E	13.9	99.2	1.00	0.90	1.11	30.8
5	T1	437	2.0	437	2.0	0.766	54.0	LOS D	15.3	108.9	1.00	0.90	1.10	21.7
Approach		495	2.0	495	2.0	0.766	55.0	LOS D	15.3	108.9	1.00	0.90	1.10	23.1
North: Rocky Point Road														
7	L2	32	2.0	32	2.0	0.167	21.7	LOS B	2.8	20.0	0.45	0.46	0.45	38.4
8	T1	647	2.0	647	2.0	* 0.800	20.4	LOS B	23.8	169.5	0.72	0.66	0.74	38.7
Approach		679	2.0	679	2.0	0.800	20.4	LOS B	23.8	169.5	0.71	0.65	0.72	38.7
West: Ramsgate Road														
10	L2	84	2.0	84	2.0	0.275	24.6	LOS B	8.3	58.9	0.63	0.61	0.63	14.5
11	T1	379	2.0	379	2.0	0.789	32.6	LOS C	21.8	155.0	0.82	0.87	0.85	30.7
12	R2	268	2.0	268	2.0	* 0.789	47.8	LOS D	21.8	155.0	0.96	1.06	1.01	26.2
Approach		732	2.0	732	2.0	0.789	37.3	LOS C	21.8	155.0	0.85	0.91	0.88	28.0
All Vehicles		2832	2.0	2832	2.0	0.800	33.0	LOS C	27.4	195.2	0.80	0.80	0.84	30.2

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

* Critical Movement (Signal Timing)

Site: 101 [Sat MD EX - Rocky Point Road - Targo Road (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	42	2.0	42	2.0	0.203	5.6	LOS A	0.0	0.0	0.00	0.07	0.00	55.0
2	T1	689	2.0	689	2.0	0.203	0.1	LOS A	0.1	0.7	0.02	0.04	0.02	56.0
3	R2	7	0.0	7	0.0	0.203	9.7	LOS A	0.1	0.7	0.04	0.01	0.04	55.7
Approach		739	2.0	739	2.0	0.203	0.5	NA	0.1	0.7	0.02	0.04	0.02	56.0
East: Driveway														
4	L2	9	0.0	9	0.0	0.071	8.6	LOS A	0.1	1.0	0.73	0.85	0.73	39.9
5	T1	1	0.0	1	0.0	0.071	25.1	LOS B	0.1	1.0	0.73	0.85	0.73	39.9
6	R2	3	0.0	3	0.0	0.071	33.1	LOS C	0.1	1.0	0.73	0.85	0.73	39.9
Approach		14	0.0	14	0.0	0.071	15.5	LOS B	0.1	1.0	0.73	0.85	0.73	39.9
North: Rocky Point Road														
7	L2	6	0.0	6	0.0	0.767	9.0	LOS A	1.1	8.2	0.08	0.02	0.19	55.0
8	T1	679	2.0	679	2.0	0.767	0.9	LOS A	1.1	8.2	0.08	0.02	0.19	41.1
9	R2	21	2.0	21	2.0	0.767	9.3	LOS A	1.1	8.2	0.08	0.02	0.19	41.1
Approach		706	2.0	706	2.0	0.767	1.2	NA	1.1	8.2	0.08	0.02	0.19	42.1
West: Targo Road														
10	L2	26	2.0	26	2.0	0.073	5.7	LOS A	0.2	1.6	0.52	0.60	0.52	31.0
12	R2	5	2.0	5	2.0	0.073	33.5	LOS C	0.2	1.6	0.52	0.60	0.52	31.0
Approach		32	2.0	32	2.0	0.073	10.4	LOS A	0.2	1.6	0.52	0.60	0.52	31.0
All Vehicles		1491	2.0	1491	2.0	0.767	1.2	NA	1.1	8.2	0.06	0.05	0.12	48.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 1 [Sat MD EX - Rocky Point Road (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

Site Category: (None)
Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, B
Output Phase Sequence: A, B

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
2	T1	716	2.0	716	2.0	0.390	0.5	LOS A	1.1	7.9	0.03	0.03	0.03	53.8
Approach		716	2.0	716	2.0	0.390	0.5	LOS A	1.1	7.9	0.03	0.03	0.03	53.8
North: Rocky Point Road														
8	T1	700	2.0	700	2.0	* 0.458	0.4	LOS A	1.5	10.3	0.04	0.04	0.04	55.3
Approach		700	2.0	700	2.0	0.458	0.4	LOS A	1.5	10.3	0.04	0.04	0.04	55.3
All Vehicles		1416	2.0	1416	2.0	0.458	0.5	LOS A	1.5	10.3	0.04	0.03	0.04	54.7

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

* Critical Movement (Signal Timing)

Site: 101 [Sat MD EX - Rocky Point Road - Hastings Street (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	21	2.0	21	2.0	0.012	4.7	LOS A	0.0	0.0	0.00	0.56	0.00	31.2
2	T1	695	2.0	695	2.0	0.363	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		716	2.0	716	2.0	0.363	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.5
North: Rocky Point Road														
8	T1	684	2.0	684	2.0	0.376	0.3	LOS A	0.3	2.3	0.05	0.01	0.06	59.0
9	R2	11	2.0	11	2.0	0.376	13.4	LOS A	0.3	2.3	0.05	0.01	0.06	59.0
Approach		695	2.0	695	2.0	0.376	0.5	NA	0.3	2.3	0.05	0.01	0.06	59.0
West: Hastings Street														
10	L2	16	2.0	16	2.0	0.120	8.0	LOS A	0.4	2.7	0.79	0.90	0.79	39.8
12	R2	16	2.0	16	2.0	0.120	27.3	LOS B	0.4	2.7	0.79	0.90	0.79	24.2
Approach		32	2.0	32	2.0	0.120	17.6	LOS B	0.4	2.7	0.79	0.90	0.79	34.5
All Vehicles		1442	2.0	1442	2.0	0.376	0.7	NA	0.4	2.7	0.04	0.03	0.05	58.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX - Burgess Street - Hastings Street (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
2	T1	42	2.0	42	2.0	0.039	5.0	LOS A	0.2	1.3	0.13	0.51	0.13	50.6
3	R2	5	2.0	5	2.0	0.039	7.9	LOS A	0.2	1.3	0.13	0.51	0.13	33.7
3u	U	1	2.0	1	2.0	0.039	9.4	LOS A	0.2	1.3	0.13	0.51	0.13	33.7
Approach		48	2.0	48	2.0	0.039	5.4	LOS A	0.2	1.3	0.13	0.51	0.13	49.9
East: Hastings Street														
4	L2	42	2.0	42	2.0	0.057	5.2	LOS A	0.3	1.9	0.12	0.59	0.12	40.6
6	R2	32	2.0	32	2.0	0.057	7.8	LOS A	0.3	1.9	0.12	0.59	0.12	50.4
6u	U	1	2.0	1	2.0	0.057	9.3	LOS A	0.3	1.9	0.12	0.59	0.12	40.6
Approach		75	2.0	75	2.0	0.057	6.4	LOS A	0.3	1.9	0.12	0.59	0.12	47.0
North: Burgess Street														
7	L2	5	2.0	5	2.0	0.024	5.1	LOS A	0.1	0.8	0.05	0.51	0.05	51.4
8	T1	26	2.0	26	2.0	0.024	4.8	LOS A	0.1	0.8	0.05	0.51	0.05	51.4
9u	U	1	2.0	1	2.0	0.024	9.2	LOS A	0.1	0.8	0.05	0.51	0.05	54.4
Approach		33	2.0	33	2.0	0.024	5.0	LOS A	0.1	0.8	0.05	0.51	0.05	51.6
All Vehicles		156	2.0	156	2.0	0.057	5.8	LOS A	0.3	1.9	0.11	0.54	0.11	48.9

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

Site: 101 [Sat MD EX - Targo Road - Burgess Street (Site Folder: Saturday Midday Existing)]

Network: 2 [Saturday Midday Existing (Network Folder: Existing)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
1b	L3	2	2.0	2	2.0	0.004	5.6	LOS A	0.0	0.1	0.15	0.51	0.15	43.9
2	T1	1	2.0	1	2.0	0.004	3.5	LOS A	0.0	0.1	0.15	0.51	0.15	43.9
3	R2	2	2.0	2	2.0	0.004	4.9	LOS A	0.0	0.1	0.15	0.51	0.15	43.9
Approach		5	2.0	5	2.0	0.004	4.9	LOS A	0.0	0.1	0.15	0.51	0.15	43.9
East: Targo Road														
4	L2	5	2.0	5	2.0	0.041	4.6	LOS A	0.1	1.1	0.05	0.51	0.05	45.6
4a	L1	26	2.0	26	2.0	0.041	3.7	LOS A	0.1	1.1	0.05	0.51	0.05	39.8
6	R2	21	2.0	21	2.0	0.041	5.0	LOS A	0.1	1.1	0.05	0.51	0.05	39.8
Approach		53	2.0	53	2.0	0.041	4.3	LOS A	0.1	1.1	0.05	0.51	0.05	41.1
North: Burgess Street														
7	L2	5	2.0	5	2.0	0.021	4.6	LOS A	0.1	0.7	0.08	0.45	0.08	33.9
8	T1	1	2.0	1	2.0	0.021	0.1	LOS A	0.1	0.7	0.08	0.45	0.08	45.9
9a	R1	32	2.0	32	2.0	0.021	3.7	LOS A	0.1	0.7	0.08	0.45	0.08	33.9
Approach		38	2.0	38	2.0	0.021	3.7	NA	0.1	0.7	0.08	0.45	0.08	35.1
SouthWest: Targo Road														
30a	L1	32	2.0	32	2.0	0.030	4.5	LOS A	0.1	0.8	0.02	0.52	0.02	35.3
32a	R1	21	2.0	21	2.0	0.030	3.6	LOS A	0.1	0.8	0.02	0.52	0.02	35.3
32b	R3	2	2.0	2	2.0	0.030	5.2	LOS A	0.1	0.8	0.02	0.52	0.02	44.4
Approach		55	2.0	55	2.0	0.030	4.2	NA	0.1	0.8	0.02	0.52	0.02	36.4
All Vehicles		151	2.0	151	2.0	0.041	4.1	NA	0.1	1.1	0.05	0.50	0.05	38.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 11771 Ramsgate Network

Template: Movement Summaries

Site: 101 [Thu PM EX + Dev - The Promenade - Torwood Street (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	5	2.0	5	2.0	0.100	5.2	LOS A	0.1	0.5	0.04	0.03	0.04	49.2
2	T1	179	2.0	179	2.0	0.100	0.1	LOS A	0.1	0.5	0.04	0.03	0.04	49.5
3	R2	5	2.0	5	2.0	0.100	5.7	LOS A	0.1	0.5	0.04	0.03	0.04	48.7
Approach		189	2.0	189	2.0	0.100	0.4	NA	0.1	0.5	0.04	0.03	0.04	49.4
East: Torwood Street														
4	L2	32	2.0	32	2.0	0.100	5.6	LOS A	0.4	2.7	0.41	0.63	0.41	45.4
5	T1	5	2.0	5	2.0	0.100	5.4	LOS A	0.4	2.7	0.41	0.63	0.41	45.5
6	R2	47	2.0	47	2.0	0.100	7.4	LOS A	0.4	2.7	0.41	0.63	0.41	42.4
Approach		84	2.0	84	2.0	0.100	6.6	LOS A	0.4	2.7	0.41	0.63	0.41	44.2
North: The Promenade														
7	L2	5	2.0	5	2.0	0.155	4.9	LOS A	0.0	0.3	0.01	0.02	0.01	49.0
8	T1	284	2.0	284	2.0	0.155	0.0	LOS A	0.0	0.3	0.01	0.02	0.01	49.8
9	R2	5	2.0	5	2.0	0.155	5.3	LOS A	0.0	0.3	0.01	0.02	0.01	48.3
Approach		295	2.0	295	2.0	0.155	0.2	NA	0.0	0.3	0.01	0.02	0.01	49.7
West: Torwood Street														
10	L2	11	2.0	11	2.0	0.022	5.1	LOS A	0.1	0.6	0.33	0.54	0.33	43.4
11	T1	5	2.0	5	2.0	0.022	5.2	LOS A	0.1	0.6	0.33	0.54	0.33	46.0
12	R2	5	2.0	5	2.0	0.022	7.3	LOS A	0.1	0.6	0.33	0.54	0.33	45.5
Approach		21	2.0	21	2.0	0.022	5.7	LOS A	0.1	0.6	0.33	0.54	0.33	44.9
All Vehicles		589	2.0	589	2.0	0.155	1.4	NA	0.4	2.7	0.09	0.13	0.09	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM EX + Dev - Ramsgate Road - Targo Road - The Promenade (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Convert Function Default
Reference Phase: Phase A
Input Phase Sequence: A, B, C
Output Phase Sequence: A, B, C

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	153	2.0	153	2.0	0.203	24.8	LOS B	5.0	35.4	0.60	0.71	0.60	36.3
2	T1	63	2.0	63	2.0	0.186	44.9	LOS D	3.2	22.4	0.88	0.68	0.88	11.9
Approach		216	2.0	216	2.0	0.203	30.7	LOS C	5.0	35.4	0.68	0.70	0.68	29.9
East: Ramsgate Road														
4	L2	11	2.0	11	2.0	0.199	29.2	LOS C	5.5	39.5	0.67	0.57	0.67	20.1
5	T1	679	2.0	679	2.0	0.698	29.7	LOS C	25.8	183.6	0.84	0.74	0.84	35.3
Approach		689	2.0	689	2.0	0.698	29.7	LOS C	25.8	183.6	0.84	0.74	0.84	35.2
North: Targo Road														
7	L2	58	2.0	58	2.0	0.247	55.9	LOS D	3.1	22.1	0.94	0.75	0.94	7.9
8	T1	21	2.0	21	2.0	0.642	54.8	LOS D	6.1	43.3	0.98	0.82	1.04	7.4
9	R2	84	2.0	84	2.0	* 0.642	59.4	LOS E	6.1	43.3	0.98	0.82	1.04	22.9
Approach		163	2.0	163	2.0	0.642	57.6	LOS E	6.1	43.3	0.96	0.80	1.00	17.1
West: Ramsgate Road														
10	L2	21	2.0	21	2.0	* 0.780	14.4	LOS A	22.2	158.1	0.54	0.50	0.54	46.4
11	T1	763	2.0	763	2.0	0.780	8.8	LOS A	22.2	158.1	0.54	0.50	0.54	46.4
12	R2	300	2.0	300	2.0	0.500	34.6	LOS C	13.2	94.0	0.85	0.89	0.85	28.2
Approach		1084	2.0	1084	2.0	0.780	16.1	LOS B	22.2	158.1	0.62	0.61	0.62	39.4
All Vehicles		2153	2.0	2153	2.0	0.780	25.0	LOS B	25.8	183.6	0.72	0.67	0.73	34.3

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

* Critical Movement (Signal Timing)

Site: 101 [Thu PM EX + Dev - Ramsgate Road - Dalkeith Street (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Dalkeith Street														
1	L2	26	2.0	26	2.0	0.075	5.9	LOS A	0.2	1.6	0.50	0.62	0.50	39.3
3	R2	5	2.0	5	2.0	0.075	30.8	LOS C	0.2	1.6	0.50	0.62	0.50	39.3
Approach		32	2.0	32	2.0	0.075	10.1	LOS A	0.2	1.6	0.50	0.62	0.50	39.3
East: Ramsgate Road														
4	L2	58	2.0	58	2.0	0.198	2.5	LOS A	0.0	0.0	0.00	0.08	0.00	56.0
5	T1	689	2.0	689	2.0	0.198	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	53.7
Approach		747	2.0	747	2.0	0.198	0.2	NA	0.0	0.0	0.00	0.04	0.00	55.2
West: Ramsgate Road														
11	T1	795	2.0	795	2.0	0.230	0.4	LOS A	5.6	40.1	0.07	0.02	0.07	56.6
12	R2	32	2.0	32	2.0	0.230	10.2	LOS A	5.6	40.1	0.16	0.05	0.16	49.7
Approach		826	2.0	826	2.0	0.230	0.8	NA	5.6	40.1	0.07	0.03	0.07	55.6
All Vehicles		1605	2.0	1605	2.0	0.230	0.7	NA	5.6	40.1	0.05	0.04	0.05	54.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM EX + Dev - Ramsgate Road - Site Access (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ramsgate Road														
5	T1	747	2.0	747	2.0	0.202	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		747	2.0	747	2.0	0.202	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Ramsgate Road														
10	L2	84	2.0	84	2.0	0.224	2.5	LOS A	0.0	0.0	0.00	0.11	0.00	55.8
11	T1	742	2.0	742	2.0	0.224	0.0	LOS A	3.4	24.5	0.00	0.05	0.00	52.2
Approach		826	2.0	826	2.0	0.224	0.3	NA	3.4	24.5	0.00	0.06	0.00	54.6
All Vehicles		1574	2.0	1574	2.0	0.224	0.1	NA	3.4	24.5	0.00	0.03	0.00	57.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM EX + Dev - Rocky Point Road - Ramsgate Road (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase C
Input Phase Sequence: A, B*, C
Output Phase Sequence: A, B*, C
(* Variable Phase)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	353	2.0	353	2.0	0.258	9.6	LOS A	5.7	40.4	0.30	0.67	0.30	45.9
2	T1	868	2.0	868	2.0	0.665	23.3	LOS B	21.7	154.2	0.75	0.66	0.75	34.2
Approach		1221	2.0	1221	2.0	0.665	19.3	LOS B	21.7	154.2	0.62	0.66	0.62	36.9
East: Ramsgate Road														
4	L2	37	2.0	37	2.0	0.983	98.7	LOS F	16.2	115.3	1.00	1.18	1.68	23.3
5	T1	395	2.0	395	2.0	* 0.983	92.7	LOS F	18.1	128.6	1.00	1.18	1.67	15.0
Approach		432	2.0	432	2.0	0.983	93.2	LOS F	18.1	128.6	1.00	1.18	1.67	15.9
North: Rocky Point Road														
7	L2	105	2.0	105	2.0	0.837	10.4	LOS A	13.4	95.4	0.33	0.37	0.35	50.0
8	T1	1347	2.0	1347	2.0	* 0.837	4.2	LOS A	13.4	95.4	0.29	0.31	0.31	53.4
Approach		1453	2.0	1453	2.0	0.837	4.6	LOS A	13.4	95.4	0.30	0.31	0.31	53.2
West: Ramsgate Road														
10	L2	42	2.0	42	2.0	0.304	29.6	LOS C	8.9	63.5	0.71	0.63	0.71	10.1
11	T1	305	2.0	305	2.0	0.873	37.5	LOS C	16.0	114.2	0.82	0.83	0.89	28.4
12	R2	337	2.0	337	2.0	* 0.873	62.0	LOS E	16.0	114.2	1.00	1.14	1.19	21.6
Approach		684	2.0	684	2.0	0.873	49.1	LOS D	16.0	114.2	0.90	0.97	1.03	24.0
All Vehicles		3789	2.0	3789	2.0	0.983	27.5	LOS B	21.7	154.2	0.59	0.64	0.69	33.1

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

* Critical Movement (Signal Timing)

Site: 102 [Thu PM EX + Dev + Dev - Rocky Point Road - Targo Road (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C
Output Phase Sequence: A, C

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	126	2.0	126	2.0	* 0.557	10.0	LOS A	5.1	36.5	0.22	0.33	0.22	32.4
2	T1	784	2.0	784	2.0	0.557	5.7	LOS A	6.1	43.2	0.23	0.26	0.23	33.0
Approach		911	2.0	911	2.0	0.557	6.3	LOS A	6.1	43.2	0.23	0.27	0.23	32.9
East: Driveway														
4	L2	18	0.0	18	0.0	0.010	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	50.9
Approach		18	0.0	18	0.0	0.010	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	50.9
North: Rocky Point Road														
7	L2	8	0.0	8	0.0	0.790	32.2	LOS C	26.4	187.7	0.83	0.76	0.84	34.2
8	T1	1284	2.0	1284	2.0	* 0.790	26.6	LOS B	26.4	187.7	0.83	0.76	0.84	13.3
Approach		1293	2.0	1293	2.0	0.790	26.6	LOS B	26.4	187.7	0.83	0.76	0.84	13.6
West: Targo Road														
10	L2	142	2.0	142	2.0	0.176	25.5	LOS B	4.8	34.4	0.62	0.71	0.62	8.2
12	R2	184	2.0	184	2.0	0.228	24.7	LOS B	6.4	45.8	0.64	0.73	0.64	7.5
Approach		326	2.0	326	2.0	0.228	25.1	LOS B	6.4	45.8	0.63	0.72	0.63	7.8
All Vehicles		2547	2.0	2547	2.0	0.790	19.0	LOS B	26.4	187.7	0.59	0.58	0.59	16.5

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

* Critical Movement (Signal Timing)

Site: 101 [Thu PM EX + Dev - Rocky Point Road - Hastings Street (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	11	2.0	11	2.0	0.006	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	35.2
2	T1	916	2.0	916	2.0	0.479	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach		926	2.0	926	2.0	0.479	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.5
North: Rocky Point Road														
8	T1	1300	2.0	1300	2.0	0.423	1.8	LOS A	4.8	34.4	0.17	0.04	0.24	55.5
9	R2	79	2.0	79	2.0	0.423	16.8	LOS B	4.8	34.4	0.45	0.12	0.63	49.8
Approach		1379	2.0	1379	2.0	0.423	2.7	NA	4.8	34.4	0.19	0.05	0.26	55.2
West: Hastings Street														
10	L2	11	2.0	11	2.0	0.580	64.9	LOS E	1.2	8.7	0.96	1.06	1.22	15.4
12	R2	11	2.0	11	2.0	0.580	179.6	LOS F	1.2	8.7	0.96	1.06	1.22	6.0
Approach		21	2.0	21	2.0	0.580	122.2	LOS F	1.2	8.7	0.96	1.06	1.22	11.2
All Vehicles		2326	2.0	2326	2.0	0.580	2.7	NA	4.8	34.4	0.12	0.04	0.16	55.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM EX + Dev - Burgess Street - Hastings Street (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
2	T1	58	2.0	58	2.0	0.049	4.9	LOS A	0.2	1.7	0.11	0.50	0.11	50.8
3	R2	5	2.0	5	2.0	0.049	7.8	LOS A	0.2	1.7	0.11	0.50	0.11	34.2
3u	U	1	2.0	1	2.0	0.049	9.3	LOS A	0.2	1.7	0.11	0.50	0.11	34.2
Approach		64	2.0	64	2.0	0.049	5.2	LOS A	0.2	1.7	0.11	0.50	0.11	50.3
East: Hastings Street														
4	L2	58	2.0	58	2.0	0.069	5.6	LOS A	0.3	2.3	0.26	0.57	0.26	40.3
6	R2	21	2.0	21	2.0	0.069	8.3	LOS A	0.3	2.3	0.26	0.57	0.26	50.3
6u	U	1	2.0	1	2.0	0.069	9.8	LOS A	0.3	2.3	0.26	0.57	0.26	40.3
Approach		80	2.0	80	2.0	0.069	6.4	LOS A	0.3	2.3	0.26	0.57	0.26	45.1
North: Burgess Street														
7	L2	37	2.0	37	2.0	0.094	5.1	LOS A	0.5	3.3	0.05	0.51	0.05	51.5
8	T1	105	2.0	105	2.0	0.094	4.8	LOS A	0.5	3.3	0.05	0.51	0.05	51.5
9u	U	1	2.0	1	2.0	0.094	9.2	LOS A	0.5	3.3	0.05	0.51	0.05	54.4
Approach		143	2.0	143	2.0	0.094	4.9	LOS A	0.5	3.3	0.05	0.51	0.05	51.5
All Vehicles		287	2.0	287	2.0	0.094	5.4	LOS A	0.5	3.3	0.12	0.52	0.12	49.7

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

Site: 101 [Thu PM EX + Dev - Targo Road - Burgess Street (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
1b	L3	1	2.0	1	2.0	0.003	5.8	LOS A	0.0	0.1	0.24	0.51	0.24	43.7
2	T1	1	2.0	1	2.0	0.003	3.6	LOS A	0.0	0.1	0.24	0.51	0.24	43.7
3	R2	1	2.0	1	2.0	0.003	6.5	LOS A	0.0	0.1	0.24	0.51	0.24	43.7
Approach		3	2.0	3	2.0	0.003	5.3	LOS A	0.0	0.1	0.24	0.51	0.24	43.7
East: Targo Road														
4	L2	5	2.0	5	2.0	0.144	4.6	LOS A	0.6	4.2	0.11	0.51	0.11	45.1
4a	L1	116	2.0	116	2.0	0.144	3.9	LOS A	0.6	4.2	0.11	0.51	0.11	36.7
6	R2	58	2.0	58	2.0	0.144	5.6	LOS A	0.6	4.2	0.11	0.51	0.11	36.7
Approach		179	2.0	179	2.0	0.144	4.5	LOS A	0.6	4.2	0.11	0.51	0.11	37.4
North: Burgess Street														
7	L2	142	2.0	142	2.0	0.097	4.6	LOS A	0.2	1.7	0.08	0.48	0.08	32.4
8	T1	1	2.0	1	2.0	0.097	0.2	LOS A	0.2	1.7	0.08	0.48	0.08	45.3
9a	R1	32	2.0	32	2.0	0.097	3.9	LOS A	0.2	1.7	0.08	0.48	0.08	32.4
Approach		175	2.0	175	2.0	0.097	4.5	NA	0.2	1.7	0.08	0.48	0.08	32.7
SouthWest: Targo Road														
30a	L1	16	2.0	16	2.0	0.057	4.9	LOS A	0.2	1.6	0.05	0.49	0.05	35.4
32a	R1	74	2.0	74	2.0	0.057	4.0	LOS A	0.2	1.6	0.05	0.49	0.05	35.4
32b	R3	2	2.0	2	2.0	0.057	5.2	LOS A	0.2	1.6	0.05	0.49	0.05	44.4
Approach		92	2.0	92	2.0	0.057	4.2	NA	0.2	1.6	0.05	0.49	0.05	36.1
All Vehicles		448	2.0	448	2.0	0.144	4.4	NA	0.6	4.2	0.08	0.50	0.08	35.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM EX + Dev - Targo Road - Site Access (Site Folder: Weekday Afternoon Existing + Development)]

Network: 3 [Weekday Afternoon Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Site Access														
1	L2	147	2.0	147	2.0	0.382	0.2	LOS A	1.8	12.8	0.20	0.25	0.20	19.6
3	R2	274	2.0	274	2.0	0.382	2.8	LOS A	1.8	12.8	0.20	0.25	0.20	19.6
Approach		421	2.0	421	2.0	0.382	1.9	LOS A	1.8	12.8	0.20	0.25	0.20	19.6
East: Targo Road														
4	L2	105	2.0	105	2.0	0.085	3.9	LOS A	0.0	0.0	0.00	0.37	0.00	46.0
5	T1	47	2.0	47	2.0	0.085	0.0	LOS A	0.0	0.0	0.00	0.37	0.00	31.6
Approach		153	2.0	153	2.0	0.085	2.7	NA	0.0	0.0	0.00	0.37	0.00	45.0
West: Targo Road														
11	T1	32	2.0	32	2.0	0.139	0.5	LOS A	0.7	5.1	0.28	0.49	0.28	35.4
12	R2	189	2.0	189	2.0	0.139	5.3	LOS A	0.7	5.1	0.28	0.49	0.28	22.8
Approach		221	2.0	221	2.0	0.139	4.6	NA	0.7	5.1	0.28	0.49	0.28	23.2
All Vehicles		795	2.0	795	2.0	0.382	2.8	NA	1.8	12.8	0.18	0.34	0.18	22.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 11771 Ramsgate Network

Template: Movement Summaries

Site: 101 [Sat MD EX + Dev - The Promenade - Torwood Street (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	5	2.0	5	2.0	0.213	4.8	LOS A	0.0	0.1	0.00	0.01	0.00	49.4
2	T1	400	2.0	400	2.0	0.213	0.0	LOS A	0.0	0.1	0.00	0.01	0.00	49.9
3	R2	1	2.0	1	2.0	0.213	5.8	LOS A	0.0	0.1	0.00	0.01	0.00	48.9
Approach		406	2.0	406	2.0	0.213	0.1	NA	0.0	0.1	0.00	0.01	0.00	49.9
East: Torwood Street														
4	L2	16	2.0	16	2.0	0.118	5.5	LOS A	0.4	3.0	0.48	0.72	0.48	44.5
5	T1	5	2.0	5	2.0	0.118	6.9	LOS A	0.4	3.0	0.48	0.72	0.48	44.6
6	R2	53	2.0	53	2.0	0.118	9.2	LOS A	0.4	3.0	0.48	0.72	0.48	40.9
Approach		74	2.0	74	2.0	0.118	8.3	LOS A	0.4	3.0	0.48	0.72	0.48	42.4
North: The Promenade														
7	L2	11	2.0	11	2.0	0.145	5.3	LOS A	0.1	0.4	0.03	0.03	0.03	48.9
8	T1	258	2.0	258	2.0	0.145	0.1	LOS A	0.1	0.4	0.03	0.03	0.03	49.6
9	R2	5	2.0	5	2.0	0.145	6.3	LOS A	0.1	0.4	0.03	0.03	0.03	48.2
Approach		274	2.0	274	2.0	0.145	0.4	NA	0.1	0.4	0.03	0.03	0.03	49.6
West: Torwood Street														
10	L2	5	2.0	5	2.0	0.023	6.0	LOS A	0.1	0.6	0.49	0.64	0.49	41.9
11	T1	5	2.0	5	2.0	0.023	6.6	LOS A	0.1	0.6	0.49	0.64	0.49	45.2
12	R2	5	2.0	5	2.0	0.023	8.9	LOS A	0.1	0.6	0.49	0.64	0.49	44.7
Approach		16	2.0	16	2.0	0.023	7.2	LOS A	0.1	0.6	0.49	0.64	0.49	44.3
All Vehicles		769	2.0	769	2.0	0.213	1.1	NA	0.4	3.0	0.07	0.10	0.07	48.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX + Dev - Ramsgate Road - Targo Road - The Promenade (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Convert Function Default
Reference Phase: Phase A
Input Phase Sequence: A, B, C
Output Phase Sequence: A, B, C

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	347	2.0	347	2.0	0.502	30.5	LOS C	13.6	96.7	0.72	0.77	0.72	33.9
2	T1	79	2.0	79	2.0	0.219	40.6	LOS C	3.7	26.7	0.85	0.66	0.85	12.8
Approach		426	2.0	426	2.0	0.502	32.3	LOS C	13.6	96.7	0.75	0.75	0.75	30.9
East: Ramsgate Road														
4	L2	16	2.0	16	2.0	0.194	27.9	LOS B	5.5	39.3	0.66	0.56	0.66	20.8
5	T1	695	2.0	695	2.0	0.680	27.8	LOS B	25.8	183.5	0.82	0.73	0.82	36.3
Approach		711	2.0	711	2.0	0.680	27.8	LOS B	25.8	183.5	0.81	0.72	0.81	36.2
North: Targo Road														
7	L2	63	2.0	63	2.0	0.205	50.7	LOS D	3.2	22.8	0.89	0.75	0.89	8.6
8	T1	32	2.0	32	2.0	0.675	51.7	LOS D	7.2	51.3	0.96	0.85	1.05	7.8
9	R2	95	2.0	95	2.0	* 0.675	56.3	LOS D	7.2	51.3	0.96	0.85	1.05	23.6
Approach		189	2.0	189	2.0	0.675	53.7	LOS D	7.2	51.3	0.94	0.81	1.00	17.6
West: Ramsgate Road														
10	L2	37	2.0	37	2.0	* 0.732	16.7	LOS B	22.5	160.0	0.58	0.55	0.58	43.8
11	T1	689	2.0	689	2.0	0.732	11.1	LOS A	22.5	160.0	0.58	0.55	0.58	43.8
12	R2	221	2.0	221	2.0	0.447	35.0	LOS C	10.5	74.9	0.87	0.82	0.87	28.1
Approach		947	2.0	947	2.0	0.732	16.9	LOS B	22.5	160.0	0.65	0.61	0.65	38.7
All Vehicles		2274	2.0	2274	2.0	0.732	26.3	LOS B	25.8	183.5	0.74	0.69	0.75	33.8

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

* Critical Movement (Signal Timing)

Site: 101 [Sat MD EX + Dev - Ramsgate Road - Dalkeith Street (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Dalkeith Street														
1	L2	26	2.0	26	2.0	0.292	7.9	LOS A	0.7	5.2	0.64	0.78	0.73	32.8
3	R2	26	2.0	26	2.0	0.292	31.0	LOS C	0.7	5.2	0.64	0.78	0.73	32.8
Approach		53	2.0	53	2.0	0.292	19.5	LOS B	0.7	5.2	0.64	0.78	0.73	32.8
East: Ramsgate Road														
4	L2	79	2.0	79	2.0	0.203	2.5	LOS A	0.0	0.0	0.00	0.11	0.00	55.8
5	T1	684	2.0	684	2.0	0.203	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	52.2
Approach		763	2.0	763	2.0	0.203	0.3	NA	0.0	0.0	0.00	0.06	0.00	54.7
West: Ramsgate Road														
11	T1	747	2.0	747	2.0	0.211	0.3	LOS A	0.6	4.1	0.05	0.02	0.05	57.4
12	R2	21	2.0	21	2.0	0.211	10.3	LOS A	0.6	4.1	0.11	0.04	0.11	50.1
Approach		768	2.0	768	2.0	0.211	0.6	NA	0.6	4.1	0.05	0.02	0.05	56.6
All Vehicles		1584	2.0	1584	2.0	0.292	1.0	NA	0.7	5.2	0.05	0.06	0.05	52.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX + Dev - Ramsgate Road - Site Access (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ramsgate Road														
5	T1	763	2.0	763	2.0	0.206	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		763	2.0	763	2.0	0.206	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Ramsgate Road														
10	L2	95	2.0	95	2.0	0.210	2.5	LOS A	0.0	0.0	0.00	0.13	0.00	55.6
11	T1	679	2.0	679	2.0	0.210	0.0	LOS A	3.4	24.5	0.00	0.06	0.00	51.1
Approach		774	2.0	774	2.0	0.210	0.3	NA	3.4	24.5	0.00	0.07	0.00	54.4
All Vehicles		1537	2.0	1537	2.0	0.210	0.2	NA	3.4	24.5	0.00	0.03	0.00	56.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX + Dev - Rocky Point Road - Ramsgate Road (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase C
Input Phase Sequence: A, B*, C
Output Phase Sequence: A, B*, C
(* Variable Phase)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	279	2.0	279	2.0	0.232	13.1	LOS A	6.0	42.8	0.40	0.69	0.40	42.2
2	T1	737	2.0	737	2.0	* 0.729	34.1	LOS C	21.3	151.6	0.87	0.76	0.88	28.5
Approach		1016	2.0	1016	2.0	0.729	28.4	LOS B	21.3	151.6	0.74	0.74	0.75	31.3
East: Ramsgate Road														
4	L2	58	2.0	58	2.0	* 0.702	54.5	LOS D	14.5	103.5	0.98	0.85	1.01	32.4
5	T1	484	2.0	484	2.0	0.702	48.3	LOS D	15.6	111.1	0.98	0.85	1.01	23.3
Approach		542	2.0	542	2.0	0.702	49.0	LOS D	15.6	111.1	0.98	0.85	1.01	24.6
North: Rocky Point Road														
7	L2	79	2.0	79	2.0	0.621	21.7	LOS B	12.3	87.3	0.57	0.56	0.57	39.3
8	T1	726	2.0	726	2.0	0.621	15.5	LOS B	12.3	87.5	0.56	0.51	0.56	41.7
Approach		805	2.0	805	2.0	0.621	16.2	LOS B	12.3	87.5	0.56	0.52	0.56	41.5
West: Ramsgate Road														
10	L2	84	2.0	84	2.0	0.252	21.2	LOS B	7.5	53.6	0.58	0.58	0.58	13.3
11	T1	363	2.0	363	2.0	0.724	28.2	LOS B	16.0	114.2	0.78	0.83	0.78	32.3
12	R2	258	2.0	258	2.0	* 0.724	41.2	LOS C	16.0	114.2	0.92	1.00	0.92	27.7
Approach		705	2.0	705	2.0	0.724	32.1	LOS C	16.0	114.2	0.81	0.86	0.81	29.5
All Vehicles		3068	2.0	3068	2.0	0.729	29.7	LOS C	21.3	151.6	0.75	0.73	0.76	31.6

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

* Critical Movement (Signal Timing)

Site: 102 [Sat MD EX + Dev + Dev - Rocky Point Road - Targo Road (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, B, C
Output Phase Sequence: A, B, C

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	158	2.0	158	2.0	0.572	15.9	LOS B	8.7	62.0	0.39	0.47	0.39	22.5
2	T1	663	2.0	663	2.0	* 0.572	11.1	LOS A	9.5	67.4	0.41	0.41	0.41	23.0
Approach		821	2.0	821	2.0	0.572	12.0	LOS A	9.5	67.4	0.41	0.42	0.41	22.9
East: Driveway														
4	L2	9	0.0	9	0.0	0.005	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	50.9
Approach		9	0.0	9	0.0	0.005	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	50.9
North: Rocky Point Road														
7	L2	6	0.0	6	0.0	0.354	6.2	LOS A	1.1	7.6	0.04	0.04	0.04	56.4
8	T1	642	2.0	642	2.0	0.354	2.4	LOS A	6.3	45.1	0.13	0.17	0.13	42.4
9	R2	147	2.0	147	2.0	* 0.354	12.9	LOS A	6.3	45.1	0.39	0.51	0.39	26.0
Approach		796	2.0	796	2.0	0.354	4.4	LOS A	6.3	45.1	0.18	0.23	0.18	38.4
West: Targo Road														
10	L2	174	2.0	174	2.0	0.194	21.9	LOS B	5.5	38.8	0.58	0.70	0.58	9.2
12	R2	168	2.0	168	2.0	* 0.574	54.6	LOS D	9.3	66.2	0.97	0.81	0.97	3.7
Approach		342	2.0	342	2.0	0.574	38.0	LOS C	9.3	66.2	0.77	0.76	0.77	5.4
All Vehicles		1968	2.0	1968	2.0	0.574	13.4	LOS A	9.5	67.4	0.38	0.40	0.38	20.6

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

* Critical Movement (Signal Timing)

Site: 101 [Sat MD EX + Dev - Rocky Point Road - Hastings Street (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	21	2.0	21	2.0	0.012	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	35.2
2	T1	816	2.0	816	2.0	0.427	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach		837	2.0	837	2.0	0.427	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.5
North: Rocky Point Road														
8	T1	795	2.0	795	2.0	0.217	0.3	LOS A	0.3	1.9	0.04	0.01	0.04	59.2
9	R2	11	2.0	11	2.0	0.217	12.7	LOS A	0.3	1.9	0.07	0.02	0.08	58.4
Approach		805	2.0	805	2.0	0.217	0.4	NA	0.3	1.9	0.04	0.01	0.04	59.1
West: Hastings Street														
10	L2	16	2.0	16	2.0	0.182	10.6	LOS A	0.6	4.1	0.85	0.94	0.87	35.5
12	R2	16	2.0	16	2.0	0.182	40.8	LOS C	0.6	4.1	0.85	0.94	0.87	19.6
Approach		32	2.0	32	2.0	0.182	25.7	LOS B	0.6	4.1	0.85	0.94	0.87	29.7
All Vehicles		1674	2.0	1674	2.0	0.427	0.8	NA	0.6	4.1	0.03	0.03	0.03	58.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX + Dev - Burgess Street - Hastings Street (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
2	T1	100	2.0	100	2.0	0.081	5.0	LOS A	0.4	2.9	0.14	0.49	0.14	50.8
3	R2	5	2.0	5	2.0	0.081	7.9	LOS A	0.4	2.9	0.14	0.49	0.14	34.1
3u	U	1	2.0	1	2.0	0.081	9.4	LOS A	0.4	2.9	0.14	0.49	0.14	34.1
Approach		106	2.0	106	2.0	0.081	5.1	LOS A	0.4	2.9	0.14	0.49	0.14	50.5
East: Hastings Street														
4	L2	42	2.0	42	2.0	0.063	5.5	LOS A	0.3	2.1	0.21	0.58	0.21	39.9
6	R2	32	2.0	32	2.0	0.063	8.1	LOS A	0.3	2.1	0.21	0.58	0.21	50.1
6u	U	1	2.0	1	2.0	0.063	9.6	LOS A	0.3	2.1	0.21	0.58	0.21	39.9
Approach		75	2.0	75	2.0	0.063	6.6	LOS A	0.3	2.1	0.21	0.58	0.21	46.5
North: Burgess Street														
7	L2	5	2.0	5	2.0	0.055	5.1	LOS A	0.3	1.9	0.05	0.50	0.05	51.5
8	T1	74	2.0	74	2.0	0.055	4.8	LOS A	0.3	1.9	0.05	0.50	0.05	51.5
9u	U	1	2.0	1	2.0	0.055	9.2	LOS A	0.3	1.9	0.05	0.50	0.05	54.5
Approach		80	2.0	80	2.0	0.055	4.9	LOS A	0.3	1.9	0.05	0.50	0.05	51.6
All Vehicles		261	2.0	261	2.0	0.081	5.5	LOS A	0.4	2.9	0.13	0.52	0.13	49.8

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

Site: 101 [Sat MD EX + Dev - Targo Road - Burgess Street (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
1b	L3	2	2.0	2	2.0	0.005	5.9	LOS A	0.0	0.1	0.29	0.53	0.29	43.3
2	T1	1	2.0	1	2.0	0.005	3.7	LOS A	0.0	0.1	0.29	0.53	0.29	43.3
3	R2	2	2.0	2	2.0	0.005	6.5	LOS A	0.0	0.1	0.29	0.53	0.29	43.3
Approach		5	2.0	5	2.0	0.005	5.7	LOS A	0.0	0.1	0.29	0.53	0.29	43.3
East: Targo Road														
4	L2	5	2.0	5	2.0	0.176	4.6	LOS A	0.8	5.4	0.11	0.50	0.11	45.2
4a	L1	153	2.0	153	2.0	0.176	3.8	LOS A	0.8	5.4	0.11	0.50	0.11	36.9
6	R2	68	2.0	68	2.0	0.176	5.6	LOS A	0.8	5.4	0.11	0.50	0.11	36.9
Approach		226	2.0	226	2.0	0.176	4.4	LOS A	0.8	5.4	0.11	0.50	0.11	37.5
North: Burgess Street														
7	L2	53	2.0	53	2.0	0.048	4.8	LOS A	0.2	1.4	0.16	0.45	0.16	32.1
8	T1	1	2.0	1	2.0	0.048	0.3	LOS A	0.2	1.4	0.16	0.45	0.16	45.2
9a	R1	32	2.0	32	2.0	0.048	3.9	LOS A	0.2	1.4	0.16	0.45	0.16	32.1
Approach		85	2.0	85	2.0	0.048	4.4	NA	0.2	1.4	0.16	0.45	0.16	32.7
SouthWest: Targo Road														
30a	L1	32	2.0	32	2.0	0.077	4.6	LOS A	0.3	2.2	0.06	0.49	0.06	35.8
32a	R1	100	2.0	100	2.0	0.077	3.8	LOS A	0.3	2.2	0.06	0.49	0.06	35.8
32b	R3	2	2.0	2	2.0	0.077	5.2	LOS A	0.3	2.2	0.06	0.49	0.06	44.6
Approach		134	2.0	134	2.0	0.077	4.0	NA	0.3	2.2	0.06	0.49	0.06	36.3
All Vehicles		451	2.0	451	2.0	0.176	4.3	NA	0.8	5.4	0.11	0.49	0.11	36.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD EX + Dev - Targo Road - Site Access (Site Folder: Saturday Midday Existing + Development)]

Network: 8 [Saturday Midday Existing + Development (Network Folder: Existing + Development)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Site Access														
1	L2	174	2.0	174	2.0	0.569	1.3	LOS A	3.4	24.3	0.25	0.35	0.33	19.4
3	R2	311	2.0	311	2.0	0.569	4.1	LOS A	3.4	24.3	0.25	0.35	0.33	19.4
Approach		484	2.0	484	2.0	0.569	3.1	LOS A	3.4	24.3	0.25	0.35	0.33	19.4
East: Targo Road														
4	L2	263	2.0	263	2.0	0.184	3.9	LOS A	0.0	0.0	0.00	0.43	0.00	45.5
5	T1	63	2.0	63	2.0	0.184	0.0	LOS A	0.0	0.0	0.00	0.43	0.00	29.8
Approach		326	2.0	326	2.0	0.184	3.1	NA	0.0	0.0	0.00	0.43	0.00	44.9
West: Targo Road														
11	T1	32	2.0	32	2.0	0.123	1.2	LOS A	0.6	4.1	0.42	0.50	0.42	34.9
12	R2	126	2.0	126	2.0	0.123	6.0	LOS A	0.6	4.1	0.42	0.50	0.42	22.8
Approach		158	2.0	158	2.0	0.123	5.1	NA	0.6	4.1	0.42	0.50	0.42	23.3
All Vehicles		968	2.0	968	2.0	0.569	3.4	NA	3.4	24.3	0.19	0.40	0.23	24.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 11771 Ramsgate Network

Template: Movement Summaries

Site: 101 [Thu PM 2032 - The Promenade - Torwood Street (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	5	2.0	5	2.0	0.098	5.2	LOS A	0.1	0.4	0.03	0.03	0.03	49.2
2	T1	174	2.0	174	2.0	0.098	0.0	LOS A	0.1	0.4	0.03	0.03	0.03	49.5
3	R2	5	2.0	5	2.0	0.098	5.7	LOS A	0.1	0.4	0.03	0.03	0.03	48.7
Approach		184	2.0	184	2.0	0.098	0.4	NA	0.1	0.4	0.03	0.03	0.03	49.4
East: Torwood Street														
4	L2	37	2.0	37	2.0	0.044	5.5	LOS A	0.2	1.2	0.37	0.58	0.37	45.8
5	T1	5	2.0	5	2.0	0.044	5.5	LOS A	0.2	1.2	0.37	0.58	0.37	45.9
6	R2	5	2.0	5	2.0	0.044	7.6	LOS A	0.2	1.2	0.37	0.58	0.37	43.1
Approach		47	2.0	47	2.0	0.044	5.8	LOS A	0.2	1.2	0.37	0.58	0.37	45.7
North: The Promenade														
7	L2	5	2.0	5	2.0	0.158	4.9	LOS A	0.1	0.4	0.02	0.02	0.02	49.0
8	T1	289	2.0	289	2.0	0.158	0.0	LOS A	0.1	0.4	0.02	0.02	0.02	49.8
9	R2	5	2.0	5	2.0	0.158	5.2	LOS A	0.1	0.4	0.02	0.02	0.02	48.3
Approach		300	2.0	300	2.0	0.158	0.2	NA	0.1	0.4	0.02	0.02	0.02	49.7
West: Torwood Street														
10	L2	11	2.0	11	2.0	0.023	5.1	LOS A	0.1	0.6	0.32	0.55	0.32	43.2
11	T1	5	2.0	5	2.0	0.023	5.4	LOS A	0.1	0.6	0.32	0.55	0.32	45.9
12	R2	5	2.0	5	2.0	0.023	7.7	LOS A	0.1	0.6	0.32	0.55	0.32	45.4
Approach		21	2.0	21	2.0	0.023	5.8	LOS A	0.1	0.6	0.32	0.55	0.32	44.8
All Vehicles		553	2.0	553	2.0	0.158	0.9	NA	0.2	1.2	0.06	0.09	0.06	48.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM 2032 - Ramsgate Road - Targo Road - The Promenade (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	168	2.0	168	2.0	0.148	6.9	LOS A	0.6	4.1	0.27	0.54	0.27	48.6
Approach		168	2.0	168	2.0	0.148	6.9	LOS A	0.6	4.1	0.27	0.54	0.27	48.6
East: Ramsgate Road														
4	L2	11	2.0	11	2.0	0.090	5.6	LOS A	0.0	0.0	0.00	0.04	0.00	58.3
5	T1	747	2.0	747	2.0	0.320	0.4	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		758	2.0	758	2.0	0.320	0.4	NA	0.0	0.0	0.00	0.01	0.00	59.7
North: Targo Road														
7	L2	63	2.0	63	2.0	0.131	10.5	LOS A	0.4	3.0	0.67	0.84	0.67	25.0
Approach		63	2.0	63	2.0	0.131	10.5	LOS A	0.4	3.0	0.67	0.84	0.67	25.0
West: Ramsgate Road														
10	L2	21	2.0	21	2.0	0.432	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	59.4
11	T1	774	2.0	774	2.0	0.432	0.2	LOS A	0.0	0.0	0.00	0.02	0.00	59.4
12	R2	332	2.0	332	2.0	0.576	14.8	LOS B	3.6	25.9	0.78	1.08	1.32	40.5
Approach		1126	2.0	1126	2.0	0.576	4.6	NA	3.6	25.9	0.23	0.33	0.39	52.2
All Vehicles		2116	2.0	2116	2.0	0.576	3.5	NA	3.6	25.9	0.16	0.25	0.25	54.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM 2032 - Ramsgate Road - Dalkeith Street (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Dalkeith Street														
1	L2	32	2.0	32	2.0	0.098	6.2	LOS A	0.3	1.9	0.56	0.66	0.56	38.3
3	R2	5	2.0	5	2.0	0.098	41.8	LOS C	0.3	1.9	0.56	0.66	0.56	38.3
Approach		37	2.0	37	2.0	0.098	11.3	LOS A	0.3	1.9	0.56	0.66	0.56	38.3
East: Ramsgate Road														
4	L2	16	2.0	16	2.0	0.204	5.5	LOS A	0.0	0.0	0.00	0.02	0.00	56.7
5	T1	763	2.0	763	2.0	0.204	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	58.9
Approach		779	2.0	779	2.0	0.204	0.1	NA	0.0	0.0	0.00	0.01	0.00	58.6
West: Ramsgate Road														
11	T1	811	2.0	810	2.0	0.239	0.5	LOS A	18.4	131.2	0.08	0.03	0.09	55.9
12	R2	37	2.0	37	2.0	0.239	10.6	LOS A	18.4	131.2	0.19	0.06	0.20	49.4
Approach		847	2.0	847	2.0	0.239	0.9	NA	18.4	131.2	0.09	0.03	0.09	54.9
All Vehicles		1663	2.0	1663	2.0	0.239	0.8	NA	18.4	131.2	0.06	0.04	0.06	54.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM 2032 - Rocky Point Road - Ramsgate Road (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase C
Input Phase Sequence: A, B*, C
Output Phase Sequence: A, B*, C
(* Variable Phase)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	389	2.0	389	2.0	0.299	9.7	LOS A	6.4	45.8	0.31	0.67	0.31	45.7
2	T1	874	2.0	874	2.0	* 0.906	40.0	LOS C	43.8	311.8	0.87	0.89	1.01	26.3
Approach		1263	2.0	1263	2.0	0.906	30.7	LOS C	43.8	311.8	0.70	0.83	0.80	30.2
East: Ramsgate Road														
4	L2	42	2.0	42	2.0	0.990	102.4	LOS F	16.4	116.7	1.00	1.19	1.71	22.8
5	T1	389	2.0	389	2.0	* 0.990	96.3	LOS F	18.5	132.1	1.00	1.20	1.70	14.6
Approach		432	2.0	432	2.0	0.990	96.9	LOS F	18.5	132.1	1.00	1.20	1.70	15.5
North: Rocky Point Road														
7	L2	68	2.0	68	2.0	0.813	17.9	LOS B	24.1	171.4	0.63	0.61	0.65	42.8
8	T1	1358	2.0	1349	2.0	0.813	12.3	LOS A	24.1	171.4	0.63	0.60	0.64	44.8
Approach		1426	2.0	1417 N1	2.0	0.813	12.6	LOS A	24.1	171.4	0.63	0.60	0.64	44.7
West: Ramsgate Road														
10	L2	47	2.0	47	2.0	0.346	31.0	LOS C	10.4	73.9	0.73	0.65	0.73	12.1
11	T1	347	2.0	347	2.0	0.994	52.6	LOS D	21.8	155.0	0.83	0.91	1.04	24.1
12	R2	384	2.0	384	2.0	* 0.994	101.7	LOS F	21.8	155.0	1.00	1.33	1.55	15.8
Approach		779	2.0	779	2.0	0.994	75.5	LOS F	21.8	155.0	0.91	1.10	1.27	18.8
All Vehicles		3900	2.0	3891 N1	2.0	0.994	40.4	LOS C	43.8	311.8	0.75	0.84	0.94	27.5

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

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM 2032 - Rocky Point Road - Targo Road (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	21	2.0	21	2.0	0.255	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	57.8
2	T1	895	2.0	895	2.0	0.255	0.5	LOS A	0.4	2.5	0.02	0.02	0.03	54.4
3	R2	3	0.0	3	0.0	0.255	30.5	LOS C	0.4	2.5	0.05	0.00	0.06	55.0
Approach		919	2.0	919	2.0	0.255	0.7	NA	0.4	2.5	0.02	0.02	0.03	54.5
East: Driveway														
4	L2	16	0.0	16	0.0	0.748	140.9	LOS F	1.4	10.1	0.95	1.12	1.46	7.9
5	T1	1	0.0	1	0.0	0.748	351.8	LOS F	1.4	10.1	0.95	1.12	1.46	7.9
6	R2	3	0.0	3	0.0	0.748	477.3	LOS F	1.4	10.1	0.95	1.12	1.46	7.9
Approach		20	0.0	20	0.0	0.748	205.1	LOS F	1.4	10.1	0.95	1.12	1.46	7.9
North: Rocky Point Road														
7	L2	8	0.0	8	0.0	0.410	3.3	LOS A	0.5	3.8	0.00	0.01	0.00	56.8
8	T1	1432	2.0	1432	2.0	0.410	0.4	LOS A	0.7	5.2	0.05	0.01	0.07	49.1
9	R2	26	2.0	26	2.0	0.410	11.2	LOS A	0.7	5.2	0.11	0.02	0.16	41.5
Approach		1466	2.0	1466	2.0	0.410	0.6	NA	0.7	5.2	0.05	0.01	0.08	49.4
West: Targo Road														
10	L2	16	2.0	16	2.0	2.610	1677.8	LOS F	16.9	120.1	1.00	2.17	4.41	0.4
12	R2	16	2.0	16	2.0	2.610	1817.8	LOS F	16.9	120.1	1.00	2.17	4.41	0.4
Approach		32	2.0	32	2.0	2.610	1747.8	LOS F	16.9	120.1	1.00	2.17	4.41	0.4
All Vehicles		2437	2.0	2437	2.0	2.610	25.0	NA	16.9	120.1	0.06	0.05	0.13	9.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 1 [Thu PM 2032 - Rocky Point Road (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

Site Category: (None)
Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, B
Output Phase Sequence: A, B

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
2	T1	911	2.0	901	2.0	0.512	0.8	LOS A	1.7	12.3	0.04	0.04	0.04	52.0
Approach		911	2.0	901 N1	2.0	0.512	0.8	LOS A	1.7	12.3	0.04	0.04	0.04	52.0
North: Rocky Point Road														
8	T1	1458	2.0	1458	2.0	* 0.649	0.6	LOS A	2.3	16.4	0.06	0.06	0.06	53.1
Approach		1458	2.0	1458	2.0	0.649	0.6	LOS A	2.3	16.4	0.06	0.06	0.06	53.1
All Vehicles		2368	2.0	2359 N1	2.0	0.649	0.7	LOS A	2.3	16.4	0.05	0.05	0.05	52.8

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

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM 2032 - Rocky Point Road - Hastings Street (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	11	2.0	10	2.0	0.006	4.7	LOS A	0.0	0.0	0.00	0.56	0.00	31.2
2	T1	900	2.0	891	2.0	0.466	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach		911	2.0	901 N1	2.0	0.466	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.5
North: Rocky Point Road														
8	T1	1447	2.0	1447	2.0	0.391	0.4	LOS A	0.5	3.8	0.03	0.00	0.04	59.0
9	R2	11	2.0	11	2.0	0.391	18.7	LOS B	0.5	3.8	0.07	0.01	0.09	58.3
Approach		1458	2.0	1458	2.0	0.391	0.5	NA	0.5	3.8	0.03	0.00	0.04	59.0
West: Hastings Street														
10	L2	11	2.0	11	2.0	0.585	81.6	LOS F	1.7	12.3	0.98	1.06	1.23	12.1
12	R2	11	2.0	11	2.0	0.585	255.7	LOS F	1.7	12.3	0.98	1.06	1.23	4.5
Approach		21	2.0	21	2.0	0.585	168.6	LOS F	1.7	12.3	0.98	1.06	1.23	8.6
All Vehicles		2389	2.0	2380 N1	2.0	0.585	1.8	NA	1.7	12.3	0.03	0.01	0.04	56.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM 2032 - Burgess Street - Hastings Street (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
2	T1	16	2.0	16	2.0	0.018	4.9	LOS A	0.1	0.6	0.11	0.54	0.11	50.2
3	R2	5	2.0	5	2.0	0.018	7.8	LOS A	0.1	0.6	0.11	0.54	0.11	33.0
3u	U	1	2.0	1	2.0	0.018	9.3	LOS A	0.1	0.6	0.11	0.54	0.11	33.0
Approach		22	2.0	22	2.0	0.018	5.8	LOS A	0.1	0.6	0.11	0.54	0.11	48.4
East: Hastings Street														
4	L2	16	2.0	16	2.0	0.030	5.2	LOS A	0.1	1.0	0.10	0.60	0.10	40.0
6	R2	21	2.0	21	2.0	0.030	7.8	LOS A	0.1	1.0	0.10	0.60	0.10	50.1
6u	U	1	2.0	1	2.0	0.030	9.3	LOS A	0.1	1.0	0.10	0.60	0.10	40.0
Approach		38	2.0	38	2.0	0.030	6.8	LOS A	0.1	1.0	0.10	0.60	0.10	47.7
North: Burgess Street														
7	L2	42	2.0	42	2.0	0.045	5.1	LOS A	0.2	1.5	0.05	0.53	0.05	51.3
8	T1	21	2.0	21	2.0	0.045	4.8	LOS A	0.2	1.5	0.05	0.53	0.05	51.3
9u	U	1	2.0	1	2.0	0.045	9.2	LOS A	0.2	1.5	0.05	0.53	0.05	54.3
Approach		64	2.0	64	2.0	0.045	5.1	LOS A	0.2	1.5	0.05	0.53	0.05	51.4
All Vehicles		124	2.0	124	2.0	0.045	5.7	LOS A	0.2	1.5	0.08	0.56	0.08	49.7

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

Site: 101 [Thu PM 2032 - Targo Road - Burgess Street (Site Folder: Weekday Afternoon 2032)]

Network: 5 [Weekday Afternoon 2032 (Network Folder: 2032)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
1b	L3	1	2.0	1	2.0	0.003	5.5	LOS A	0.0	0.1	0.13	0.50	0.13	44.2
2	T1	1	2.0	1	2.0	0.003	3.4	LOS A	0.0	0.1	0.13	0.50	0.13	44.2
3	R2	1	2.0	1	2.0	0.003	4.8	LOS A	0.0	0.1	0.13	0.50	0.13	44.2
Approach		3	2.0	3	2.0	0.003	4.6	LOS A	0.0	0.1	0.13	0.50	0.13	44.2
East: Targo Road														
4	L2	5	2.0	5	2.0	0.025	4.6	LOS A	0.1	0.6	0.04	0.52	0.04	45.5
4a	L1	11	2.0	11	2.0	0.025	3.7	LOS A	0.1	0.6	0.04	0.52	0.04	39.5
6	R2	16	2.0	16	2.0	0.025	4.9	LOS A	0.1	0.6	0.04	0.52	0.04	39.5
Approach		32	2.0	32	2.0	0.025	4.5	LOS A	0.1	0.6	0.04	0.52	0.04	41.6
North: Burgess Street														
7	L2	16	2.0	16	2.0	0.030	4.6	LOS A	0.1	1.0	0.06	0.47	0.06	33.8
8	T1	1	2.0	1	2.0	0.030	0.0	LOS A	0.1	1.0	0.06	0.47	0.06	45.8
9a	R1	37	2.0	37	2.0	0.030	3.7	LOS A	0.1	1.0	0.06	0.47	0.06	33.8
Approach		54	2.0	54	2.0	0.030	3.9	NA	0.1	1.0	0.06	0.47	0.06	34.7
SouthWest: Targo Road														
30a	L1	16	2.0	16	2.0	0.016	4.5	LOS A	0.1	0.4	0.02	0.52	0.02	35.2
32a	R1	11	2.0	11	2.0	0.016	3.6	LOS A	0.1	0.4	0.02	0.52	0.02	35.2
32b	R3	2	2.0	2	2.0	0.016	5.2	LOS A	0.1	0.4	0.02	0.52	0.02	44.4
Approach		28	2.0	28	2.0	0.016	4.2	NA	0.1	0.4	0.02	0.52	0.02	37.3
All Vehicles		117	2.0	117	2.0	0.030	4.1	NA	0.1	1.0	0.04	0.50	0.04	38.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 11771 Ramsgate Network | **Template: Movement Summaries**

Site: 101 [Sat MD 2032 - The Promenade - Torwood Street (Site Folder: Saturday Midday 2032)] | **Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]**

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	5	2.0	5	2.0	0.216	4.8	LOS A	0.0	0.1	0.00	0.01	0.00	49.4
2	T1	405	2.0	405	2.0	0.216	0.0	LOS A	0.0	0.1	0.00	0.01	0.00	49.9
3	R2	1	2.0	1	2.0	0.216	5.7	LOS A	0.0	0.1	0.00	0.01	0.00	48.9
Approach		412	2.0	412	2.0	0.216	0.1	NA	0.0	0.1	0.00	0.01	0.00	49.9
East: Torwood Street														
4	L2	21	2.0	21	2.0	0.035	5.4	LOS A	0.1	0.9	0.38	0.58	0.38	45.6
5	T1	5	2.0	5	2.0	0.035	7.0	LOS A	0.1	0.9	0.38	0.58	0.38	45.6
6	R2	5	2.0	5	2.0	0.035	9.4	LOS A	0.1	0.9	0.38	0.58	0.38	42.7
Approach		32	2.0	32	2.0	0.035	6.3	LOS A	0.1	0.9	0.38	0.58	0.38	45.3
North: The Promenade														
7	L2	11	2.0	11	2.0	0.143	5.3	LOS A	0.1	0.5	0.03	0.03	0.03	48.8
8	T1	253	2.0	253	2.0	0.143	0.1	LOS A	0.1	0.5	0.03	0.03	0.03	49.6
9	R2	5	2.0	5	2.0	0.143	6.4	LOS A	0.1	0.5	0.03	0.03	0.03	48.1
Approach		268	2.0	268	2.0	0.143	0.4	NA	0.1	0.5	0.03	0.03	0.03	49.5
West: Torwood Street														
10	L2	5	2.0	5	2.0	0.024	6.0	LOS A	0.1	0.6	0.50	0.66	0.50	41.6
11	T1	5	2.0	5	2.0	0.024	6.9	LOS A	0.1	0.6	0.50	0.66	0.50	45.0
12	R2	5	2.0	5	2.0	0.024	9.4	LOS A	0.1	0.6	0.50	0.66	0.50	44.5
Approach		16	2.0	16	2.0	0.024	7.4	LOS A	0.1	0.6	0.50	0.66	0.50	44.1
All Vehicles		727	2.0	727	2.0	0.216	0.6	NA	0.1	0.9	0.04	0.06	0.04	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 - Ramsgate Road - Targo Road - The Promenade (Site Folder: Saturday Midday 2032)]

Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	384	2.0	384	2.0	0.337	7.9	LOS A	1.6	11.3	0.32	0.56	0.32	48.4
Approach		384	2.0	384	2.0	0.337	7.9	LOS A	1.6	11.3	0.32	0.56	0.32	48.4
East: Ramsgate Road														
4	L2	16	2.0	16	2.0	0.093	5.6	LOS A	0.0	0.0	0.00	0.06	0.00	57.5
5	T1	768	2.0	768	2.0	0.331	0.5	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		784	2.0	784	2.0	0.331	0.6	NA	0.0	0.0	0.00	0.01	0.00	59.6
North: Targo Road														
7	L2	68	2.0	68	2.0	0.120	9.3	LOS A	0.4	2.9	0.60	0.81	0.60	26.6
Approach		68	2.0	68	2.0	0.120	9.3	LOS A	0.4	2.9	0.60	0.81	0.60	26.6
West: Ramsgate Road														
10	L2	42	2.0	42	2.0	0.397	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	59.1
11	T1	684	2.0	684	2.0	0.397	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.1
12	R2	242	2.0	242	2.0	0.438	13.5	LOS A	2.3	16.0	0.74	0.99	1.05	41.7
Approach		968	2.0	968	2.0	0.438	3.7	NA	2.3	16.0	0.18	0.27	0.26	53.5
All Vehicles		2205	2.0	2205	2.0	0.438	3.5	NA	2.3	16.0	0.16	0.25	0.19	54.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 - Ramsgate Road - Dalkeith Street (Site Folder: Saturday Midday 2032)]

Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Dalkeith Street														
1	L2	32	2.0	32	2.0	0.449	14.2	LOS A	1.2	8.6	0.73	0.91	0.99	27.8
3	R2	32	2.0	32	2.0	0.449	45.1	LOS D	1.2	8.6	0.73	0.91	0.99	27.8
Approach		63	2.0	63	2.0	0.449	29.6	LOS C	1.2	8.6	0.73	0.91	0.99	27.8
East: Ramsgate Road														
4	L2	37	2.0	37	2.0	0.208	5.5	LOS A	0.0	0.0	0.00	0.06	0.00	56.3
5	T1	758	2.0	758	2.0	0.208	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	57.7
Approach		795	2.0	795	2.0	0.208	0.3	NA	0.0	0.0	0.00	0.03	0.00	57.4
West: Ramsgate Road														
11	T1	747	2.0	747	2.0	0.211	0.3	LOS A	8.5	60.6	0.06	0.02	0.06	57.2
12	R2	21	2.0	21	2.0	0.211	10.6	LOS A	8.5	60.6	0.12	0.04	0.12	50.1
Approach		768	2.0	768	2.0	0.211	0.6	NA	8.5	60.6	0.06	0.02	0.06	56.5
All Vehicles		1626	2.0	1626	2.0	0.449	1.6	NA	8.5	60.6	0.06	0.06	0.07	51.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 - Rocky Point Road - Ramsgate Road (Site Folder: Saturday Midday 2032)]

Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase C
Input Phase Sequence: A, B*, C
Output Phase Sequence: A, B*, C
(* Variable Phase)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	311	2.0	311	2.0	0.240	11.0	LOS A	5.7	40.9	0.35	0.68	0.35	44.3
2	T1	716	2.0	716	2.0	0.885	43.0	LOS D	35.8	255.1	0.91	0.91	1.05	25.2
Approach		1026	2.0	1026	2.0	0.885	33.3	LOS C	35.8	255.1	0.74	0.84	0.84	29.0
East: Ramsgate Road														
4	L2	63	2.0	63	2.0	0.936	84.0	LOS F	18.7	133.1	1.00	1.11	1.46	26.2
5	T1	484	2.0	484	2.0	* 0.936	74.8	LOS F	20.8	147.9	1.00	1.11	1.45	17.5
Approach		547	2.0	547	2.0	0.936	75.9	LOS F	20.8	147.9	1.00	1.11	1.45	18.8
North: Rocky Point Road														
7	L2	37	2.0	37	2.0	0.193	21.9	LOS B	3.3	23.5	0.46	0.47	0.46	38.3
8	T1	716	2.0	716	2.0	* 0.922	29.6	LOS C	24.1	171.4	0.80	0.82	0.92	33.4
Approach		753	2.0	753	2.0	0.922	29.2	LOS C	24.1	171.4	0.78	0.80	0.90	33.6
West: Ramsgate Road														
10	L2	95	2.0	95	2.0	0.309	24.9	LOS B	9.5	67.4	0.64	0.62	0.64	14.3
11	T1	421	2.0	421	2.0	0.885	40.5	LOS C	21.8	155.0	0.85	0.93	0.95	27.7
12	R2	295	2.0	295	2.0	* 0.885	61.2	LOS E	21.8	155.0	1.00	1.15	1.18	22.6
Approach		811	2.0	811	2.0	0.885	46.2	LOS D	21.8	155.0	0.88	0.97	1.00	24.9
All Vehicles		3137	2.0	3137	2.0	0.936	43.1	LOS D	35.8	255.1	0.83	0.91	1.00	26.3

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

* Critical Movement (Signal Timing)

Site: 101 [Sat MD 2032 - Rocky Point Road - Targo Road (Site Folder: Saturday Midday 2032)]

Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	47	2.0	47	2.0	0.224	5.6	LOS A	0.0	0.0	0.00	0.07	0.00	54.9
2	T1	763	2.0	763	2.0	0.224	0.1	LOS A	0.1	0.9	0.02	0.04	0.02	55.9
3	R2	7	0.0	7	0.0	0.224	10.7	LOS A	0.1	0.9	0.04	0.01	0.04	55.7
Approach		818	2.0	818	2.0	0.224	0.5	NA	0.1	0.9	0.02	0.04	0.02	55.8
East: Driveway														
4	L2	9	0.0	9	0.0	0.091	9.2	LOS A	0.2	1.2	0.79	0.90	0.79	37.4
5	T1	1	0.0	1	0.0	0.091	31.5	LOS C	0.2	1.2	0.79	0.90	0.79	37.4
6	R2	3	0.0	3	0.0	0.091	42.5	LOS C	0.2	1.2	0.79	0.90	0.79	37.4
Approach		14	0.0	14	0.0	0.091	18.6	LOS B	0.2	1.2	0.79	0.90	0.79	37.4
North: Rocky Point Road														
7	L2	6	0.0	6	0.0	0.441	9.7	LOS A	8.0	57.1	0.08	0.02	0.12	55.7
8	T1	753	2.0	753	2.0	0.441	0.5	LOS A	8.0	57.1	0.08	0.02	0.12	45.8
9	R2	21	2.0	21	2.0	0.441	10.2	LOS A	8.0	57.1	0.08	0.02	0.12	45.8
Approach		780	2.0	780	2.0	0.441	0.8	NA	8.0	57.1	0.08	0.02	0.12	46.5
West: Targo Road														
10	L2	32	2.0	32	2.0	0.093	5.9	LOS A	0.3	2.1	0.57	0.62	0.57	30.1
12	R2	5	2.0	5	2.0	0.093	43.2	LOS D	0.3	2.1	0.57	0.62	0.57	30.1
Approach		37	2.0	37	2.0	0.093	11.2	LOS A	0.3	2.1	0.57	0.62	0.57	30.1
All Vehicles		1648	2.0	1648	2.0	0.441	1.1	NA	8.0	57.1	0.07	0.05	0.08	49.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 1 [Sat MD 2032 - Rocky Point Road (Site Folder: Saturday Midday 2032)]

Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]

Site Category: (None)
Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Two-Phase
Reference Phase: Phase A
Input Phase Sequence: A, B
Output Phase Sequence: A, B

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
2	T1	789	2.0	789	2.0	0.439	0.6	LOS A	1.3	9.4	0.04	0.03	0.04	53.0
Approach		789	2.0	789	2.0	0.439	0.6	LOS A	1.3	9.4	0.04	0.03	0.04	53.0
North: Rocky Point Road														
8	T1	774	2.0	774	2.0	* 1.034	85.6	LOS F	16.0	114.2	1.00	1.44	1.62	3.2
Approach		774	2.0	774	2.0	1.034	85.6	LOS F	16.0	114.2	1.00	1.44	1.62	3.2
All Vehicles		1563	2.0	1563	2.0	1.034	42.7	LOS D	16.0	114.2	0.51	0.73	0.82	4.8

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

* Critical Movement (Signal Timing)

Site: 101 [Sat MD 2032 - Rocky Point Road - Hastings Street (Site Folder: Saturday Midday 2032)]

Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	21	2.0	21	2.0	0.012	4.7	LOS A	0.0	0.0	0.00	0.56	0.00	31.2
2	T1	768	2.0	768	2.0	0.402	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach		789	2.0	789	2.0	0.402	0.1	NA	0.0	0.0	0.00	0.02	0.00	59.5
North: Rocky Point Road														
8	T1	758	2.0	758	2.0	0.417	0.4	LOS A	0.4	3.0	0.05	0.01	0.07	58.8
9	R2	11	2.0	11	2.0	0.417	15.7	LOS B	0.4	3.0	0.05	0.01	0.07	58.8
Approach		768	2.0	768	2.0	0.417	0.6	NA	0.4	3.0	0.05	0.01	0.07	58.8
West: Hastings Street														
10	L2	16	2.0	16	2.0	0.157	8.7	LOS A	0.5	3.5	0.85	0.93	0.85	37.3
12	R2	16	2.0	16	2.0	0.157	35.5	LOS C	0.5	3.5	0.85	0.93	0.85	21.4
Approach		32	2.0	32	2.0	0.157	22.1	LOS B	0.5	3.5	0.85	0.93	0.85	31.7
All Vehicles		1589	2.0	1589	2.0	0.417	0.8	NA	0.5	3.5	0.04	0.03	0.05	58.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 - Burgess Street - Hastings Street (Site Folder: Saturday Midday 2032)]

Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
2	T1	47	2.0	47	2.0	0.043	5.0	LOS A	0.2	1.4	0.15	0.50	0.15	50.6
3	R2	5	2.0	5	2.0	0.043	7.9	LOS A	0.2	1.4	0.15	0.50	0.15	33.6
3u	U	1	2.0	1	2.0	0.043	9.4	LOS A	0.2	1.4	0.15	0.50	0.15	33.6
Approach		54	2.0	54	2.0	0.043	5.4	LOS A	0.2	1.4	0.15	0.50	0.15	49.9
East: Hastings Street														
4	L2	47	2.0	47	2.0	0.066	5.2	LOS A	0.3	2.2	0.13	0.59	0.13	40.5
6	R2	37	2.0	37	2.0	0.066	7.9	LOS A	0.3	2.2	0.13	0.59	0.13	50.3
6u	U	1	2.0	1	2.0	0.066	9.4	LOS A	0.3	2.2	0.13	0.59	0.13	40.5
Approach		85	2.0	85	2.0	0.066	6.4	LOS A	0.3	2.2	0.13	0.59	0.13	47.0
North: Burgess Street														
7	L2	5	2.0	5	2.0	0.027	5.1	LOS A	0.1	0.9	0.05	0.50	0.05	51.4
8	T1	32	2.0	32	2.0	0.027	4.8	LOS A	0.1	0.9	0.05	0.50	0.05	51.4
9u	U	1	2.0	1	2.0	0.027	9.2	LOS A	0.1	0.9	0.05	0.50	0.05	54.4
Approach		38	2.0	38	2.0	0.027	5.0	LOS A	0.1	0.9	0.05	0.50	0.05	51.6
All Vehicles		177	2.0	177	2.0	0.066	5.8	LOS A	0.3	2.2	0.12	0.54	0.12	49.0

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

Site: 101 [Sat MD 2032 - Targo Road - Burgess Street (Site Folder: Saturday Midday 2032)]

Network: 6 [Saturday Midday 2032 (Network Folder: 2032)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
1b	L3	2	2.0	2	2.0	0.004	5.6	LOS A	0.0	0.1	0.16	0.51	0.16	43.8
2	T1	1	2.0	1	2.0	0.004	3.5	LOS A	0.0	0.1	0.16	0.51	0.16	43.8
3	R2	2	2.0	2	2.0	0.004	4.9	LOS A	0.0	0.1	0.16	0.51	0.16	43.8
Approach		5	2.0	5	2.0	0.004	4.9	LOS A	0.0	0.1	0.16	0.51	0.16	43.8
East: Targo Road														
4	L2	5	2.0	5	2.0	0.044	4.6	LOS A	0.2	1.2	0.05	0.51	0.05	45.6
4a	L1	32	2.0	32	2.0	0.044	3.7	LOS A	0.2	1.2	0.05	0.51	0.05	39.8
6	R2	21	2.0	21	2.0	0.044	5.0	LOS A	0.2	1.2	0.05	0.51	0.05	39.8
Approach		58	2.0	58	2.0	0.044	4.3	LOS A	0.2	1.2	0.05	0.51	0.05	41.1
North: Burgess Street														
7	L2	5	2.0	5	2.0	0.024	4.6	LOS A	0.1	0.8	0.08	0.46	0.08	33.9
8	T1	1	2.0	1	2.0	0.024	0.1	LOS A	0.1	0.8	0.08	0.46	0.08	45.9
9a	R1	37	2.0	37	2.0	0.024	3.7	LOS A	0.1	0.8	0.08	0.46	0.08	33.9
Approach		43	2.0	43	2.0	0.024	3.7	NA	0.1	0.8	0.08	0.46	0.08	35.0
SouthWest: Targo Road														
30a	L1	37	2.0	37	2.0	0.033	4.5	LOS A	0.1	0.8	0.02	0.52	0.02	35.2
32a	R1	21	2.0	21	2.0	0.033	3.6	LOS A	0.1	0.8	0.02	0.52	0.02	35.2
32b	R3	2	2.0	2	2.0	0.033	5.2	LOS A	0.1	0.8	0.02	0.52	0.02	44.4
Approach		60	2.0	60	2.0	0.033	4.2	NA	0.1	0.8	0.02	0.52	0.02	36.3
All Vehicles		166	2.0	166	2.0	0.044	4.1	NA	0.2	1.2	0.05	0.50	0.05	38.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 11771 Ramsgate Network

Template: Movement Summaries

Site: 101 [Thu PM 2032 + Dev - The Promenade - Torwood Street (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	5	2.0	5	2.0	0.109	5.3	LOS A	0.1	0.5	0.04	0.03	0.04	49.2
2	T1	195	2.0	195	2.0	0.109	0.1	LOS A	0.1	0.5	0.04	0.03	0.04	49.5
3	R2	5	2.0	5	2.0	0.109	5.8	LOS A	0.1	0.5	0.04	0.03	0.04	48.7
Approach		205	2.0	205	2.0	0.109	0.3	NA	0.1	0.5	0.04	0.03	0.04	49.4
East: Torwood Street														
4	L2	37	2.0	37	2.0	0.108	5.7	LOS A	0.4	3.0	0.43	0.64	0.43	45.3
5	T1	5	2.0	5	2.0	0.108	5.7	LOS A	0.4	3.0	0.43	0.64	0.43	45.4
6	R2	47	2.0	47	2.0	0.108	7.7	LOS A	0.4	3.0	0.43	0.64	0.43	42.3
Approach		89	2.0	89	2.0	0.108	6.8	LOS A	0.4	3.0	0.43	0.64	0.43	44.2
North: The Promenade														
7	L2	5	2.0	5	2.0	0.169	5.0	LOS A	0.0	0.3	0.01	0.02	0.01	49.0
8	T1	311	2.0	310	2.0	0.169	0.0	LOS A	0.0	0.3	0.01	0.02	0.01	49.8
9	R2	5	2.0	5	2.0	0.169	5.3	LOS A	0.0	0.3	0.01	0.02	0.01	48.3
Approach		321	2.0	321	2.0	0.169	0.2	NA	0.0	0.3	0.01	0.02	0.01	49.8
West: Torwood Street														
10	L2	11	2.0	11	2.0	0.022	5.2	LOS A	0.1	0.6	0.35	0.55	0.35	43.2
11	T1	5	2.0	5	2.0	0.022	5.4	LOS A	0.1	0.6	0.35	0.55	0.35	45.9
12	R2	5	2.0	5	2.0	0.022	7.6	LOS A	0.1	0.6	0.35	0.55	0.35	45.4
Approach		21	2.0	21	2.0	0.022	5.8	LOS A	0.1	0.6	0.35	0.55	0.35	44.8
All Vehicles		637	2.0	637	2.0	0.169	1.3	NA	0.4	3.0	0.09	0.13	0.09	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM 2032+ Dev - Ramsgate Road - Targo Road - The Promenade (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Convert Function Default
Reference Phase: Phase A
Input Phase Sequence: A, B, C
Output Phase Sequence: A, B, C

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	168	2.0	168	2.0	0.231	26.0	LOS B	5.6	40.1	0.62	0.72	0.62	35.9
2	T1	63	2.0	63	2.0	0.195	45.9	LOS D	3.2	22.7	0.89	0.69	0.89	11.7
Approach		232	2.0	232	2.0	0.231	31.5	LOS C	5.6	40.1	0.69	0.71	0.69	30.0
East: Ramsgate Road														
4	L2	11	2.0	10	2.0	0.214	28.7	LOS C	6.0	43.0	0.67	0.57	0.67	20.4
5	T1	747	2.0	744	2.0	0.748	29.9	LOS C	28.9	205.6	0.86	0.76	0.86	35.3
Approach		758	2.0	754 N1	2.0	0.748	29.9	LOS C	28.9	205.6	0.86	0.76	0.86	35.2
North: Targo Road														
7	L2	63	2.0	63	2.0	0.287	57.3	LOS E	3.4	24.6	0.95	0.75	0.95	7.7
8	T1	21	2.0	21	2.0	0.696	57.1	LOS E	6.2	44.5	0.99	0.86	1.12	7.2
9	R2	84	2.0	84	2.0	* 0.696	61.7	LOS E	6.2	44.5	0.99	0.86	1.12	22.3
Approach		168	2.0	168	2.0	0.696	59.5	LOS E	6.2	44.5	0.97	0.82	1.05	16.5
West: Ramsgate Road														
10	L2	21	2.0	21	2.0	* 0.845	18.4	LOS B	28.3	201.4	0.56	0.55	0.60	42.2
11	T1	837	2.0	837	2.0	0.845	12.8	LOS A	28.3	201.4	0.56	0.55	0.60	42.2
12	R2	332	2.0	332	2.0	0.572	38.8	LOS C	14.7	105.0	0.88	0.94	0.88	26.5
Approach		1189	2.0	1189	2.0	0.845	20.2	LOS B	28.3	201.4	0.65	0.66	0.68	36.2
All Vehicles		2347	2.0	2343 N1	2.0	0.845	27.2	LOS B	28.9	205.6	0.74	0.71	0.76	33.2

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

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM 2032 + Dev - Ramsgate Road - Dalkeith Street (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Dalkeith Street														
1	L2	32	2.0	32	2.0	0.095	6.3	LOS A	0.2	1.8	0.55	0.66	0.55	38.6
3	R2	5	2.0	5	2.0	0.095	39.6	LOS C	0.2	1.8	0.55	0.66	0.55	38.6
Approach		37	2.0	37	2.0	0.095	11.0	LOS A	0.2	1.8	0.55	0.66	0.55	38.6
East: Ramsgate Road														
4	L2	58	2.0	58	2.0	0.228	2.5	LOS A	0.0	0.0	0.00	0.07	0.00	56.1
5	T1	763	2.0	759	2.0	0.228	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	54.1
Approach		821	2.0	817 N1	2.0	0.228	0.2	NA	0.0	0.0	0.00	0.04	0.00	55.3
West: Ramsgate Road														
11	T1	874	2.0	874	2.0	0.257	0.5	LOS A	18.2	129.4	0.08	0.03	0.09	55.7
12	R2	37	2.0	37	2.0	0.257	11.2	LOS A	18.2	129.4	0.19	0.06	0.21	49.3
Approach		911	2.0	911	2.0	0.257	1.0	NA	18.2	129.4	0.09	0.03	0.10	54.8
All Vehicles		1768	2.0	1764 N1	2.0	0.257	0.8	NA	18.2	129.4	0.06	0.05	0.06	53.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM 2032 + Dev - Ramsgate Road - Site Access (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ramsgate Road														
5	T1	821	2.0	817	2.0	0.220	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		821	2.0	817[N1]	2.0	0.220	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Ramsgate Road														
10	L2	84	2.0	84	2.0	0.255	2.5	LOS A	0.0	0.0	0.00	0.11	0.00	55.8
11	T1	821	2.0	821	2.0	0.255	0.0	LOS A	3.4	24.5	0.00	0.05	0.00	52.7
Approach		905	2.0	905	2.0	0.255	0.2	NA	3.4	24.5	0.00	0.05	0.00	54.8
All Vehicles		1726	2.0	1722[N1]	2.0	0.255	0.1	NA	3.4	24.5	0.00	0.03	0.00	57.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM 2032 + Dev - Rocky Point Road - Ramsgate Road (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase C
Input Phase Sequence: A, B*, C
Output Phase Sequence: A, B*, C
(* Variable Phase)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	389	2.0	389	2.0	0.361	10.0	LOS A	6.7	47.5	0.32	0.67	0.32	45.4
2	T1	953	2.0	953	2.0	0.591	23.7	LOS B	19.5	138.8	0.76	0.67	0.76	33.9
Approach		1342	2.0	1342	2.0	0.591	19.7	LOS B	19.5	138.8	0.63	0.67	0.63	36.6
East: Ramsgate Road														
4	L2	42	2.0	42	2.0	1.010	112.0	LOS F	19.2	136.8	1.00	1.25	1.77	21.4
5	T1	432	2.0	432	2.0	* 1.010	106.0	LOS F	21.4	152.1	1.00	1.25	1.76	13.5
Approach		474	2.0	474	2.0	1.010	106.5	LOS F	21.4	152.1	1.00	1.25	1.76	14.3
North: Rocky Point Road														
7	L2	111	2.0	110	2.0	0.912	15.0	LOS B	23.9	169.9	0.49	0.55	0.55	45.0
8	T1	1474	2.0	1473	2.0	* 0.912	8.2	LOS A	23.9	169.9	0.44	0.48	0.50	48.6
Approach		1584	2.0	1583 N1	2.0	0.912	8.7	LOS A	23.9	169.9	0.45	0.48	0.50	48.3
West: Ramsgate Road														
10	L2	47	2.0	47	2.0	0.344	30.1	LOS C	10.3	73.2	0.73	0.65	0.73	9.9
11	T1	337	2.0	337	2.0	0.987	50.4	LOS D	16.0	114.2	0.83	0.89	1.02	24.2
12	R2	374	2.0	374	2.0	* 0.987	97.5	LOS F	16.0	114.2	1.00	1.31	1.52	15.8
Approach		758	2.0	758	2.0	0.987	72.4	LOS F	16.0	114.2	0.91	1.08	1.25	18.8
All Vehicles		4158	2.0	4157 N1	2.0	1.010	35.0	LOS C	23.9	169.9	0.65	0.74	0.82	29.4

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

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 102 [Thu PM 2032 + Dev + Dev - Rocky Point Road - Targo Road (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, C
Output Phase Sequence: A, C

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	126	2.0	126	2.0	* 0.371	6.0	LOS A	0.9	6.1	0.03	0.18	0.03	47.4
2	T1	868	2.0	868	2.0	0.371	1.2	LOS A	0.9	6.4	0.03	0.10	0.03	52.1
Approach		995	2.0	995	2.0	0.371	1.8	LOS A	0.9	6.4	0.03	0.11	0.03	51.4
East: Driveway														
4	L2	16	0.0	16	0.0	0.009	5.5	LOS A	0.0	0.1	0.00	0.58	0.00	50.9
Approach		16	0.0	16	0.0	0.009	5.5	LOS A	0.0	0.1	0.00	0.58	0.00	50.9
North: Rocky Point Road														
7	L2	8	0.0	8	0.0	0.904	27.5	LOS B	19.1	135.7	0.30	0.42	0.47	36.8
8	T1	1421	2.0	1420	2.0	* 0.904	18.8	LOS B	21.6	153.5	0.29	0.39	0.44	17.2
Approach		1429	2.0	1429	2.0	0.904	18.9	LOS B	21.6	153.5	0.29	0.39	0.44	17.5
West: Targo Road														
10	L2	142	2.0	142	2.0	0.461	54.3	LOS D	7.6	54.2	0.95	0.79	0.95	4.1
12	R2	184	2.0	184	2.0	0.899	75.1	LOS F	11.5	81.6	1.00	1.02	1.43	2.8
Approach		326	2.0	326	2.0	0.899	66.0	LOS E	11.5	81.6	0.98	0.92	1.22	3.2
All Vehicles		2766	2.0	2765 N1	2.0	0.904	18.2	LOS B	21.6	153.5	0.28	0.35	0.38	17.1

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

* Critical Movement (Signal Timing)
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Site: 101 [Thu PM 2032 + Dev - Rocky Point Road - Hastings Street (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	11	2.0	11	2.0	0.006	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	35.2
2	T1	1000	2.0	1000	2.0	0.523	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach		1011	2.0	1011	2.0	0.523	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.5
North: Rocky Point Road														
8	T1	1437	2.0	1437	2.0	0.493	2.8	LOS A	4.3	30.8	0.20	0.04	0.29	53.9
9	R2	79	2.0	79	2.0	0.493	22.1	LOS B	4.3	30.8	0.57	0.12	0.83	45.6
Approach		1516	2.0	1516	2.0	0.493	3.8	NA	4.3	30.8	0.22	0.05	0.31	53.4
West: Hastings Street														
10	L2	11	2.0	11	2.0	0.995	312.9	LOS F	3.9	27.6	1.00	1.23	1.85	5.2
12	R2	11	2.0	11	2.0	0.995	607.7	LOS F	3.9	27.6	1.00	1.23	1.85	1.7
Approach		21	2.0	21	2.0	0.995	460.3	LOS F	3.9	27.6	1.00	1.23	1.85	3.5
All Vehicles		2547	2.0	2547	2.0	0.995	6.1	NA	4.3	30.8	0.14	0.04	0.20	50.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM 2032 + Dev - Burgess Street - Hastings Street (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
2	T1	58	2.0	58	2.0	0.049	4.9	LOS A	0.2	1.7	0.11	0.50	0.11	50.8
3	R2	5	2.0	5	2.0	0.049	7.8	LOS A	0.2	1.7	0.11	0.50	0.11	34.2
3u	U	1	2.0	1	2.0	0.049	9.3	LOS A	0.2	1.7	0.11	0.50	0.11	34.2
Approach		64	2.0	64	2.0	0.049	5.2	LOS A	0.2	1.7	0.11	0.50	0.11	50.3
East: Hastings Street														
4	L2	58	2.0	58	2.0	0.069	5.6	LOS A	0.3	2.3	0.26	0.57	0.26	40.3
6	R2	21	2.0	21	2.0	0.069	8.3	LOS A	0.3	2.3	0.26	0.57	0.26	50.3
6u	U	1	2.0	1	2.0	0.069	9.8	LOS A	0.3	2.3	0.26	0.57	0.26	40.3
Approach		80	2.0	80	2.0	0.069	6.4	LOS A	0.3	2.3	0.26	0.57	0.26	45.1
North: Burgess Street														
7	L2	42	2.0	42	2.0	0.098	5.1	LOS A	0.5	3.4	0.05	0.51	0.05	51.5
8	T1	105	2.0	105	2.0	0.098	4.8	LOS A	0.5	3.4	0.05	0.51	0.05	51.5
9u	U	1	2.0	1	2.0	0.098	9.2	LOS A	0.5	3.4	0.05	0.51	0.05	54.4
Approach		148	2.0	148	2.0	0.098	4.9	LOS A	0.5	3.4	0.05	0.51	0.05	51.5
All Vehicles		293	2.0	293	2.0	0.098	5.4	LOS A	0.5	3.4	0.12	0.52	0.12	49.8

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

Site: 101 [Thu PM 2032 + Dev - Targo Road - Burgess Street (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
1b	L3	1	2.0	1	2.0	0.003	5.8	LOS A	0.0	0.1	0.24	0.51	0.24	43.7
2	T1	1	2.0	1	2.0	0.003	3.6	LOS A	0.0	0.1	0.24	0.51	0.24	43.7
3	R2	1	2.0	1	2.0	0.003	6.5	LOS A	0.0	0.1	0.24	0.51	0.24	43.7
Approach		3	2.0	3	2.0	0.003	5.3	LOS A	0.0	0.1	0.24	0.51	0.24	43.7
East: Targo Road														
4	L2	5	2.0	5	2.0	0.145	4.6	LOS A	0.6	4.2	0.11	0.51	0.11	45.1
4a	L1	116	2.0	116	2.0	0.145	4.0	LOS A	0.6	4.2	0.11	0.51	0.11	36.6
6	R2	58	2.0	58	2.0	0.145	5.6	LOS A	0.6	4.2	0.11	0.51	0.11	36.6
Approach		179	2.0	179	2.0	0.145	4.5	LOS A	0.6	4.2	0.11	0.51	0.11	37.4
North: Burgess Street														
7	L2	142	2.0	142	2.0	0.100	4.7	LOS A	0.3	2.0	0.08	0.48	0.08	32.4
8	T1	1	2.0	1	2.0	0.100	0.2	LOS A	0.3	2.0	0.08	0.48	0.08	45.3
9a	R1	37	2.0	37	2.0	0.100	3.9	LOS A	0.3	2.0	0.08	0.48	0.08	32.4
Approach		180	2.0	180	2.0	0.100	4.5	NA	0.3	2.0	0.08	0.48	0.08	32.7
SouthWest: Targo Road														
30a	L1	16	2.0	16	2.0	0.057	4.9	LOS A	0.2	1.6	0.05	0.49	0.05	35.4
32a	R1	74	2.0	74	2.0	0.057	4.0	LOS A	0.2	1.6	0.05	0.49	0.05	35.4
32b	R3	2	2.0	2	2.0	0.057	5.2	LOS A	0.2	1.6	0.05	0.49	0.05	44.4
Approach		92	2.0	92	2.0	0.057	4.2	NA	0.2	1.6	0.05	0.49	0.05	36.1
All Vehicles		454	2.0	454	2.0	0.145	4.4	NA	0.6	4.2	0.09	0.49	0.09	35.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Thu PM 2032 + Dev - Targo Road - Site Access (Site Folder: Weekday Afternoon 2032 + Development)]

Network: 7 [Weekday Afternoon 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Site Access														
1	L2	147	2.0	147	2.0	0.637	1.9	LOS A	3.1	22.0	0.22	0.36	0.32	19.2
3	R2	274	2.0	274	2.0	0.637	4.5	LOS A	3.1	22.0	0.22	0.36	0.32	19.2
Approach		421	2.0	421	2.0	0.637	3.6	LOS A	3.1	22.0	0.22	0.36	0.32	19.2
East: Targo Road														
4	L2	105	2.0	105	2.0	0.088	3.9	LOS A	0.0	0.0	0.00	0.35	0.00	46.1
5	T1	53	2.0	53	2.0	0.088	0.0	LOS A	0.0	0.0	0.00	0.35	0.00	31.9
Approach		158	2.0	158	2.0	0.088	2.6	NA	0.0	0.0	0.00	0.35	0.00	45.1
West: Targo Road														
11	T1	37	2.0	37	2.0	0.143	0.5	LOS A	0.7	5.1	0.29	0.48	0.29	35.5
12	R2	189	2.0	189	2.0	0.143	5.4	LOS A	0.7	5.1	0.29	0.48	0.29	22.9
Approach		226	2.0	226	2.0	0.143	4.6	NA	0.7	5.1	0.29	0.48	0.29	23.2
All Vehicles		805	2.0	805	2.0	0.637	3.7	NA	3.1	22.0	0.20	0.39	0.25	22.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: 11771 Ramsgate Network

Template: Movement Summaries

Site: 101 [Sat MD 2032 + Dev - The Promenade - Torwood Street (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	5	2.0	5	2.0	0.232	4.8	LOS A	0.0	0.1	0.00	0.01	0.00	49.4
2	T1	437	2.0	437	2.0	0.232	0.0	LOS A	0.0	0.1	0.00	0.01	0.00	49.9
3	R2	1	2.0	1	2.0	0.232	5.9	LOS A	0.0	0.1	0.00	0.01	0.00	48.9
Approach		443	2.0	443	2.0	0.232	0.1	NA	0.0	0.1	0.00	0.01	0.00	49.9
East: Torwood Street														
4	L2	21	2.0	21	2.0	0.131	5.6	LOS A	0.5	3.3	0.49	0.72	0.49	44.3
5	T1	5	2.0	5	2.0	0.131	7.5	LOS A	0.5	3.3	0.49	0.72	0.49	44.4
6	R2	53	2.0	53	2.0	0.131	10.0	LOS A	0.5	3.3	0.49	0.72	0.49	40.5
Approach		79	2.0	79	2.0	0.131	8.6	LOS A	0.5	3.3	0.49	0.72	0.49	42.3
North: The Promenade														
7	L2	11	2.0	11	2.0	0.159	5.4	LOS A	0.1	0.5	0.03	0.03	0.03	48.9
8	T1	284	2.0	284	2.0	0.159	0.1	LOS A	0.1	0.5	0.03	0.03	0.03	49.6
9	R2	5	2.0	5	2.0	0.159	6.6	LOS A	0.1	0.5	0.03	0.03	0.03	48.2
Approach		300	2.0	300	2.0	0.159	0.4	NA	0.1	0.5	0.03	0.03	0.03	49.6
West: Torwood Street														
10	L2	5	2.0	5	2.0	0.024	6.2	LOS A	0.1	0.6	0.52	0.67	0.52	41.5
11	T1	5	2.0	5	2.0	0.024	7.1	LOS A	0.1	0.6	0.52	0.67	0.52	44.9
12	R2	5	2.0	5	2.0	0.024	9.6	LOS A	0.1	0.6	0.52	0.67	0.52	44.5
Approach		16	2.0	16	2.0	0.024	7.6	LOS A	0.1	0.6	0.52	0.67	0.52	44.0
All Vehicles		838	2.0	838	2.0	0.232	1.1	NA	0.5	3.3	0.07	0.09	0.07	48.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 + Dev - Ramsgate Road - Targo Road - The Promenade (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Convert Function Default
Reference Phase: Phase A
Input Phase Sequence: A, B, C
Output Phase Sequence: A, B, C

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: The Promenade														
1	L2	384	2.0	384	2.0	0.561	32.5	LOS C	15.7	111.7	0.75	0.79	0.75	33.3
2	T1	79	2.0	79	2.0	0.224	40.6	LOS C	3.7	26.7	0.85	0.66	0.85	12.8
Approach		463	2.0	463	2.0	0.561	33.9	LOS C	15.7	111.7	0.77	0.77	0.77	30.6
East: Ramsgate Road														
4	L2	16	2.0	16	2.0	0.210	27.4	LOS B	6.1	43.2	0.65	0.56	0.65	21.1
5	T1	768	2.0	768	2.0	0.736	28.2	LOS B	29.3	208.6	0.84	0.75	0.84	36.2
Approach		784	2.0	784	2.0	0.736	28.2	LOS B	29.3	208.6	0.84	0.75	0.84	36.1
North: Targo Road														
7	L2	68	2.0	68	2.0	0.222	50.9	LOS D	3.5	24.8	0.90	0.75	0.90	8.5
8	T1	32	2.0	32	2.0	0.699	52.7	LOS D	7.3	52.0	0.97	0.86	1.08	7.7
9	R2	95	2.0	95	2.0	* 0.699	57.2	LOS E	7.3	52.0	0.97	0.86	1.08	23.4
Approach		195	2.0	195	2.0	0.699	54.3	LOS D	7.3	52.0	0.94	0.82	1.02	17.3
West: Ramsgate Road														
10	L2	42	2.0	42	2.0	* 0.801	17.4	LOS B	26.2	186.7	0.62	0.58	0.62	43.0
11	T1	753	2.0	753	2.0	0.801	11.8	LOS A	26.2	186.7	0.62	0.58	0.62	43.0
12	R2	242	2.0	242	2.0	0.532	41.3	LOS C	11.8	84.3	0.91	0.90	0.91	25.6
Approach		1037	2.0	1037	2.0	0.801	18.9	LOS B	26.2	186.7	0.69	0.66	0.69	37.1
All Vehicles		2479	2.0	2479	2.0	0.801	27.4	LOS B	29.3	208.6	0.77	0.72	0.78	33.3

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

* Critical Movement (Signal Timing)

Site: 101 [Sat MD 2032 + Dev - Ramsgate Road - Dalkeith Street (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Dalkeith Street														
1	L2	32	2.0	32	2.0	0.437	13.6	LOS A	1.2	8.5	0.73	0.91	0.98	28.2
3	R2	32	2.0	32	2.0	0.437	43.9	LOS D	1.2	8.5	0.73	0.91	0.98	28.2
Approach		63	2.0	63	2.0	0.437	28.8	LOS C	1.2	8.5	0.73	0.91	0.98	28.2
East: Ramsgate Road														
4	L2	84	2.0	84	2.0	0.237	2.5	LOS A	0.0	0.0	0.00	0.10	0.00	55.9
5	T1	758	2.0	758	2.0	0.237	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	52.2
Approach		842	2.0	842	2.0	0.237	0.3	NA	0.0	0.0	0.00	0.05	0.00	54.7
West: Ramsgate Road														
11	T1	816	2.0	816	2.0	0.230	0.4	LOS A	3.5	25.2	0.06	0.02	0.06	57.1
12	R2	21	2.0	21	2.0	0.230	11.3	LOS A	3.5	25.2	0.12	0.03	0.13	50.0
Approach		837	2.0	837	2.0	0.230	0.6	NA	3.5	25.2	0.06	0.02	0.06	56.4
All Vehicles		1742	2.0	1742	2.0	0.437	1.5	NA	3.5	25.2	0.05	0.07	0.06	50.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 + Dev - Ramsgate Road - Site Access (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Ramsgate Road														
5	T1	837	2.0	837	2.0	0.226	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		837	2.0	837	2.0	0.226	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Ramsgate Road														
10	L2	95	2.0	95	2.0	0.230	2.5	LOS A	0.0	0.0	0.00	0.12	0.00	55.7
11	T1	753	2.0	753	2.0	0.230	0.0	LOS A	3.4	24.5	0.00	0.05	0.00	51.7
Approach		847	2.0	847	2.0	0.230	0.3	NA	3.4	24.5	0.00	0.06	0.00	54.5
All Vehicles		1684	2.0	1684	2.0	0.230	0.1	NA	3.4	24.5	0.00	0.03	0.00	57.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 + Dev - Rocky Point Road - Ramsgate Road (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase C
Input Phase Sequence: A, B*, C
Output Phase Sequence: A, B*, C
(* Variable Phase)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	311	2.0	311	2.0	0.291	12.1	LOS A	6.3	44.8	0.38	0.69	0.38	43.2
2	T1	805	2.0	805	2.0	* 0.856	48.2	LOS D	24.5	174.4	0.95	0.96	1.13	23.4
Approach		1116	2.0	1116	2.0	0.856	38.2	LOS C	24.5	174.4	0.79	0.88	0.92	26.8
East: Ramsgate Road														
4	L2	63	2.0	63	2.0	* 0.875	68.0	LOS E	18.6	132.3	1.00	1.02	1.27	28.9
5	T1	532	2.0	532	2.0	0.875	61.8	LOS E	20.2	143.8	1.00	1.02	1.26	19.9
Approach		595	2.0	595	2.0	0.875	62.4	LOS E	20.2	143.8	1.00	1.02	1.26	21.2
North: Rocky Point Road														
7	L2	84	2.0	84	2.0	0.729	25.7	LOS B	16.8	119.6	0.71	0.67	0.72	36.7
8	T1	795	2.0	795	2.0	0.729	19.5	LOS B	17.1	121.8	0.70	0.63	0.70	38.9
Approach		879	2.0	879	2.0	0.729	20.1	LOS B	17.1	121.8	0.70	0.64	0.71	38.7
West: Ramsgate Road														
10	L2	95	2.0	95	2.0	0.278	19.9	LOS B	7.9	56.3	0.57	0.58	0.57	14.1
11	T1	405	2.0	405	2.0	0.798	30.3	LOS C	16.0	114.2	0.80	0.86	0.82	31.2
12	R2	305	2.0	305	2.0	* 0.798	44.9	LOS D	16.0	114.2	0.95	1.05	0.99	26.4
Approach		805	2.0	805	2.0	0.798	34.6	LOS C	16.0	114.2	0.83	0.90	0.86	28.4
All Vehicles		3395	2.0	3395	2.0	0.875	36.9	LOS C	24.5	174.4	0.81	0.85	0.91	28.3

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

* Critical Movement (Signal Timing)

Site: 102 [Sat MD 2032 + Dev + Dev - Rocky Point Road - Targo Road (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: Split Phasing
Reference Phase: Phase A
Input Phase Sequence: A, B, C
Output Phase Sequence: A, B, C

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	163	2.0	163	2.0	0.718	22.5	LOS B	15.3	108.6	0.63	0.61	0.63	17.1
2	T1	737	2.0	737	2.0	* 0.718	18.0	LOS B	16.5	117.6	0.65	0.60	0.65	17.0
Approach		900	2.0	900	2.0	0.718	18.8	LOS B	16.5	117.6	0.65	0.60	0.65	17.0
East: Driveway														
4	L2	9	0.0	9	0.0	0.007	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	50.9
Approach		9	0.0	9	0.0	0.007	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	50.9
North: Rocky Point Road														
7	L2	6	0.0	6	0.0	0.530	7.1	LOS A	2.9	20.4	0.10	0.10	0.10	55.1
8	T1	716	2.0	716	2.0	0.530	5.8	LOS A	11.8	84.2	0.25	0.27	0.25	32.2
9	R2	168	2.0	168	2.0	* 0.530	22.1	LOS B	11.8	84.2	0.62	0.71	0.62	17.1
Approach		891	2.0	891	2.0	0.530	8.9	LOS A	11.8	84.2	0.32	0.35	0.32	28.1
West: Targo Road														
10	L2	179	2.0	179	2.0	0.182	19.0	LOS B	5.1	36.0	0.52	0.69	0.52	10.6
12	R2	168	2.0	168	2.0	* 0.727	57.9	LOS E	10.0	71.1	1.00	0.87	1.10	3.5
Approach		347	2.0	347	2.0	0.727	37.8	LOS C	10.0	71.1	0.75	0.78	0.80	5.5
All Vehicles		2147	2.0	2147	2.0	0.727	17.7	LOS B	16.5	117.6	0.52	0.53	0.53	17.2

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

* Critical Movement (Signal Timing)

Site: 101 [Sat MD 2032 + Dev - Rocky Point Road - Hastings Street (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Rocky Point Road														
1	L2	21	2.0	21	2.0	0.012	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	35.2
2	T1	889	2.0	889	2.0	0.465	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach		911	2.0	911	2.0	0.465	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.4
North: Rocky Point Road														
8	T1	868	2.0	868	2.0	0.238	0.3	LOS A	0.3	2.4	0.04	0.01	0.04	59.0
9	R2	11	2.0	11	2.0	0.238	14.4	LOS A	0.3	2.4	0.08	0.02	0.09	58.1
Approach		879	2.0	879	2.0	0.238	0.5	NA	0.3	2.4	0.04	0.01	0.04	59.0
West: Hastings Street														
10	L2	16	2.0	16	2.0	0.242	14.1	LOS A	0.8	5.5	0.89	0.97	0.97	31.5
12	R2	16	2.0	16	2.0	0.242	56.1	LOS D	0.8	5.5	0.89	0.97	0.97	16.0
Approach		32	2.0	32	2.0	0.242	35.1	LOS C	0.8	5.5	0.89	0.97	0.97	25.6
All Vehicles		1821	2.0	1821	2.0	0.465	0.9	NA	0.8	5.5	0.03	0.03	0.04	58.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 + Dev - Burgess Street - Hastings Street (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

Site Category: Existing Design
Roundabout

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
2	T1	95	2.0	95	2.0	0.078	5.0	LOS A	0.4	2.8	0.15	0.49	0.15	50.7
3	R2	5	2.0	5	2.0	0.078	7.9	LOS A	0.4	2.8	0.15	0.49	0.15	33.9
3u	U	1	2.0	1	2.0	0.078	9.4	LOS A	0.4	2.8	0.15	0.49	0.15	33.9
Approach		101	2.0	101	2.0	0.078	5.2	LOS A	0.4	2.8	0.15	0.49	0.15	50.4
East: Hastings Street														
4	L2	47	2.0	47	2.0	0.072	5.5	LOS A	0.3	2.4	0.22	0.58	0.22	39.8
6	R2	37	2.0	37	2.0	0.072	8.1	LOS A	0.3	2.4	0.22	0.58	0.22	50.0
6u	U	1	2.0	1	2.0	0.072	9.6	LOS A	0.3	2.4	0.22	0.58	0.22	39.8
Approach		85	2.0	85	2.0	0.072	6.7	LOS A	0.3	2.4	0.22	0.58	0.22	46.5
North: Burgess Street														
7	L2	5	2.0	5	2.0	0.058	5.1	LOS A	0.3	2.0	0.05	0.50	0.05	51.5
8	T1	79	2.0	79	2.0	0.058	4.8	LOS A	0.3	2.0	0.05	0.50	0.05	51.5
9u	U	1	2.0	1	2.0	0.058	9.2	LOS A	0.3	2.0	0.05	0.50	0.05	54.5
Approach		85	2.0	85	2.0	0.058	4.9	LOS A	0.3	2.0	0.05	0.50	0.05	51.6
All Vehicles		272	2.0	272	2.0	0.078	5.6	LOS A	0.4	2.8	0.14	0.52	0.14	49.7

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

Site: 101 [Sat MD 2032 + Dev - Targo Road - Burgess Street (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Burgess Street														
1b	L3	2	2.0	2	2.0	0.005	6.0	LOS A	0.0	0.1	0.30	0.53	0.30	43.3
2	T1	1	2.0	1	2.0	0.005	3.8	LOS A	0.0	0.1	0.30	0.53	0.30	43.3
3	R2	2	2.0	2	2.0	0.005	6.5	LOS A	0.0	0.1	0.30	0.53	0.30	43.3
Approach		5	2.0	5	2.0	0.005	5.7	LOS A	0.0	0.1	0.30	0.53	0.30	43.3
East: Targo Road														
4	L2	5	2.0	5	2.0	0.180	4.6	LOS A	0.8	5.5	0.11	0.50	0.11	45.2
4a	L1	158	2.0	158	2.0	0.180	3.8	LOS A	0.8	5.5	0.11	0.50	0.11	36.9
6	R2	68	2.0	68	2.0	0.180	5.7	LOS A	0.8	5.5	0.11	0.50	0.11	36.9
Approach		232	2.0	232	2.0	0.180	4.4	LOS A	0.8	5.5	0.11	0.50	0.11	37.5
North: Burgess Street														
7	L2	53	2.0	53	2.0	0.052	4.8	LOS A	0.2	1.6	0.17	0.45	0.17	32.1
8	T1	1	2.0	1	2.0	0.052	0.3	LOS A	0.2	1.6	0.17	0.45	0.17	45.2
9a	R1	37	2.0	37	2.0	0.052	3.9	LOS A	0.2	1.6	0.17	0.45	0.17	32.1
Approach		91	2.0	91	2.0	0.052	4.4	NA	0.2	1.6	0.17	0.45	0.17	32.6
SouthWest: Targo Road														
30a	L1	37	2.0	37	2.0	0.080	4.6	LOS A	0.3	2.3	0.06	0.49	0.06	35.7
32a	R1	100	2.0	100	2.0	0.080	3.8	LOS A	0.3	2.3	0.06	0.49	0.06	35.7
32b	R3	2	2.0	2	2.0	0.080	5.2	LOS A	0.3	2.3	0.06	0.49	0.06	44.5
Approach		139	2.0	139	2.0	0.080	4.0	NA	0.3	2.3	0.06	0.49	0.06	36.2
All Vehicles		466	2.0	466	2.0	0.180	4.3	NA	0.8	5.5	0.11	0.49	0.11	36.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Sat MD 2032 + Dev - Targo Road - Site Access (Site Folder: Saturday Midday 2032 + Development)]

Network: 4 [Saturday Midday 2032 + Development (Network Folder: 2032 + Development)]

Site Category: (None)
Give-Way (Two-Way)

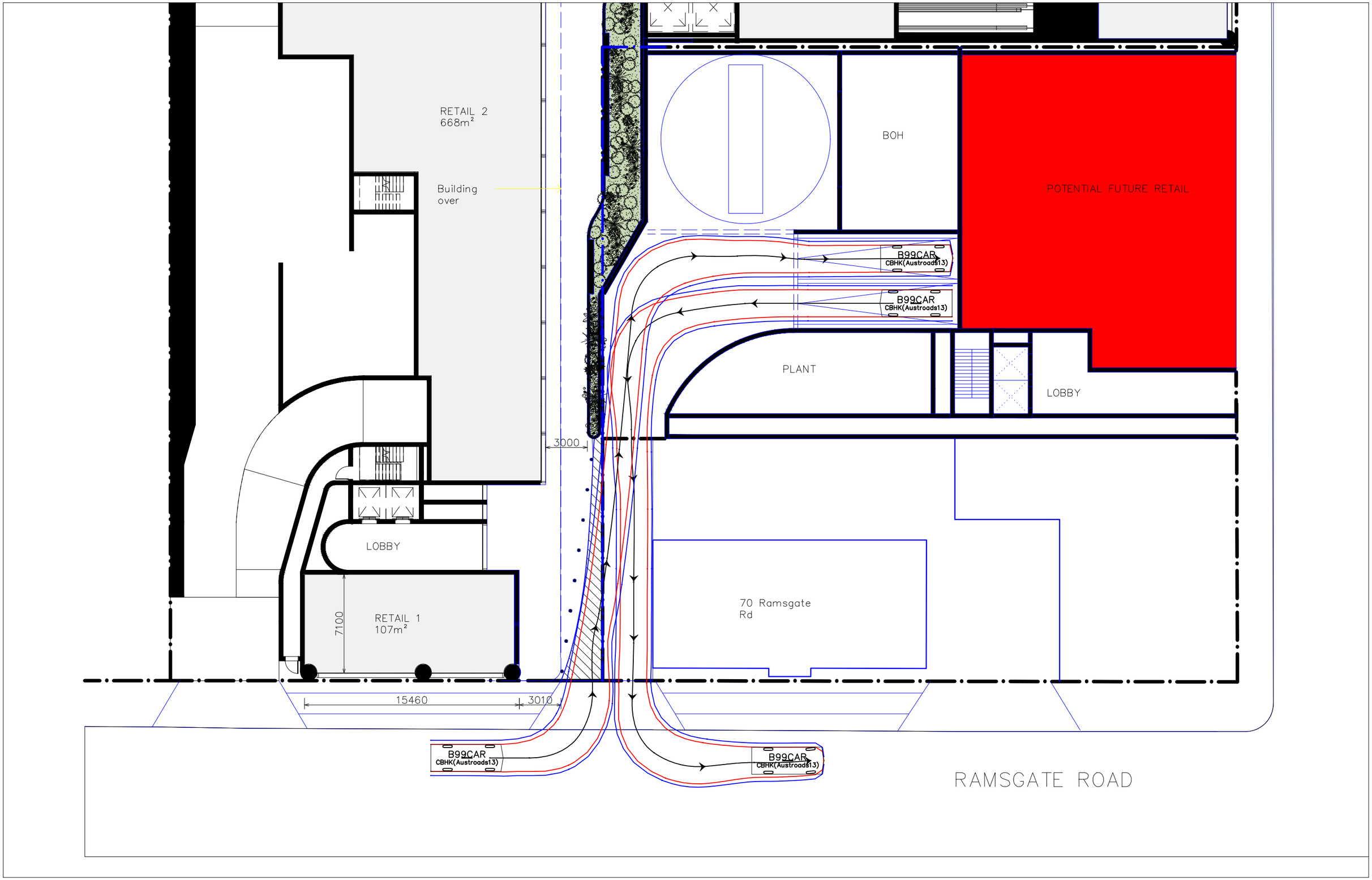
Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Site Access														
1	L2	174	2.0	174	2.0	0.603	1.7	LOS A	3.7	26.7	0.25	0.36	0.34	19.3
3	R2	311	2.0	311	2.0	0.603	4.4	LOS A	3.7	26.7	0.25	0.36	0.34	19.3
Approach		484	2.0	484	2.0	0.603	3.4	LOS A	3.7	26.7	0.25	0.36	0.34	19.3
East: Targo Road														
4	L2	263	2.0	263	2.0	0.186	3.9	LOS A	0.0	0.0	0.00	0.42	0.00	45.6
5	T1	68	2.0	68	2.0	0.186	0.0	LOS A	0.0	0.0	0.00	0.42	0.00	30.0
Approach		332	2.0	332	2.0	0.186	3.1	NA	0.0	0.0	0.00	0.42	0.00	44.9
West: Targo Road														
11	T1	37	2.0	37	2.0	0.130	1.2	LOS A	0.6	4.5	0.43	0.48	0.43	35.1
12	R2	126	2.0	126	2.0	0.130	6.1	LOS A	0.6	4.5	0.43	0.48	0.43	22.8
Approach		163	2.0	163	2.0	0.130	5.0	NA	0.6	4.5	0.43	0.48	0.43	23.4
All Vehicles		979	2.0	979	2.0	0.603	3.6	NA	3.7	26.7	0.19	0.40	0.24	24.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

ATTACHMENT E

VEICLE SWEPT PATHS FOR NEIGHBOURING SITE



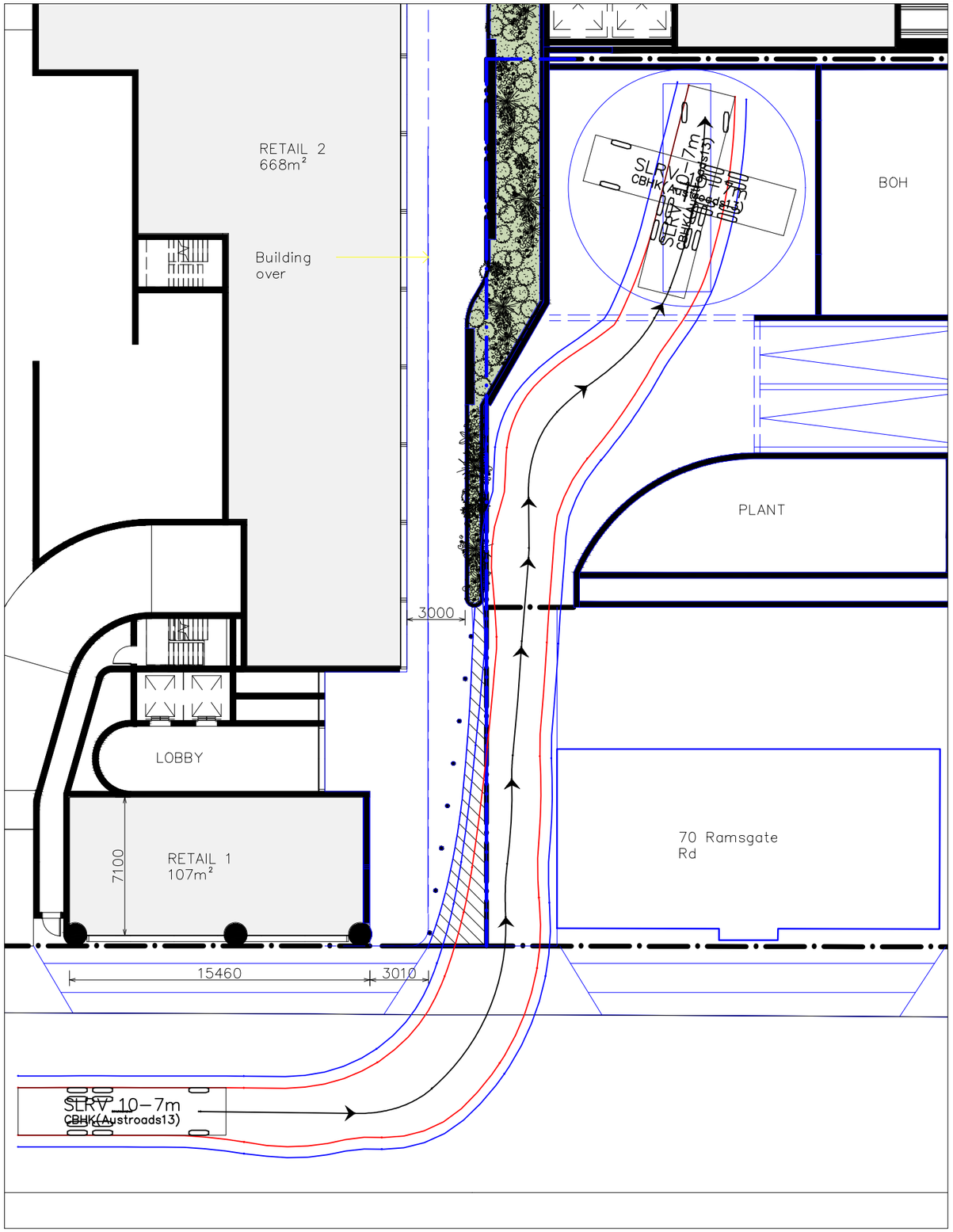
NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

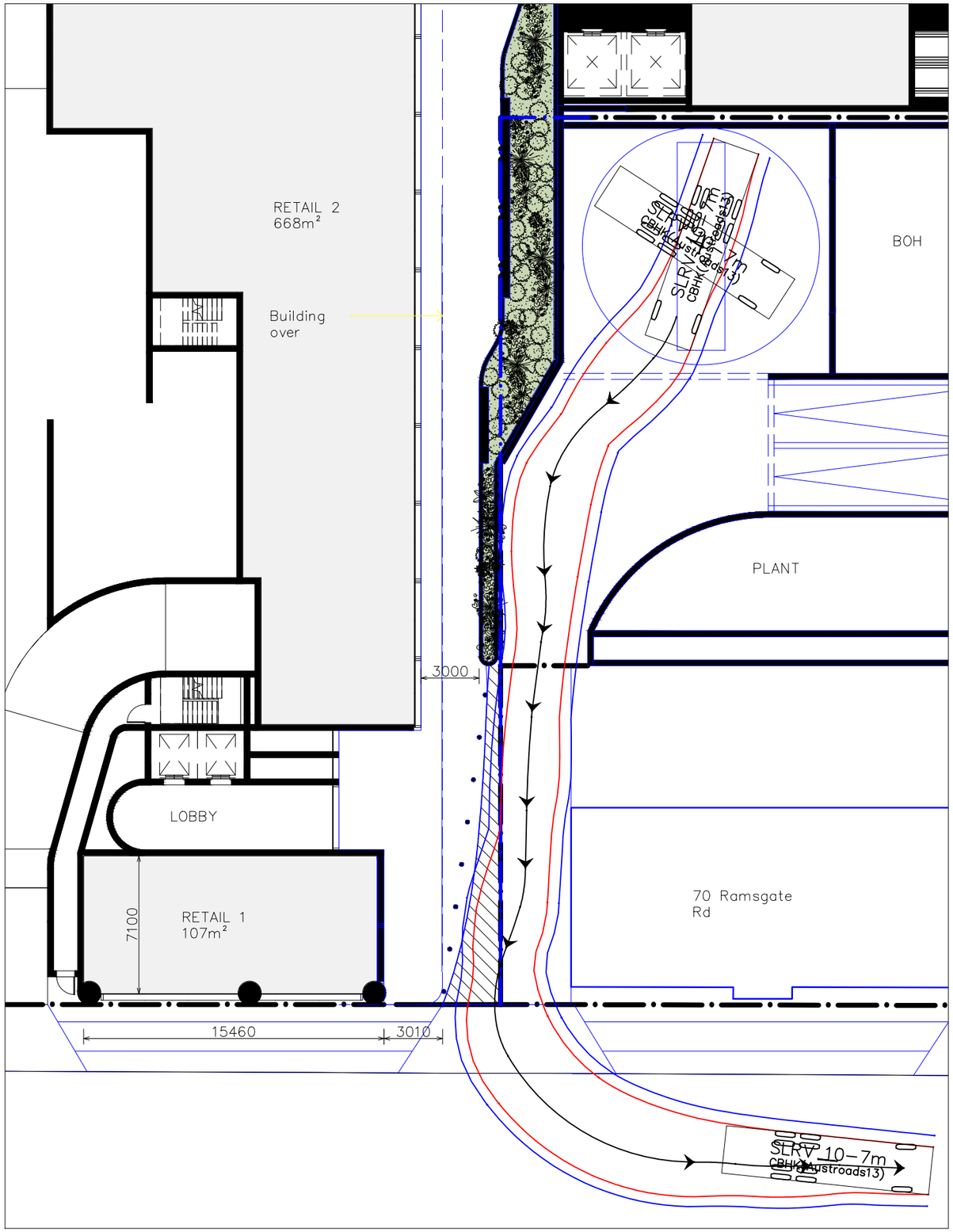
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B99 VEHICLE SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mc Ref: 11771 21.04.2022

1





NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

10.7m LARGE RIGID VEHICLE SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mc Ref: 11771 21.04.2022

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