2019NTH015

DA 10.2018.650.1 Mixed use development, Jonson Street, Byron Bay

ATTACHMENTS TO COUNCIL REPORT

1. DEVELOPMENT PLAN SET

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
12	181115	Preliminary	JG	GD
14	181121	DA	JG	GD
15	181129	DA	JG	GD
16	181219	DA	JG	GD
A	190107	DA	JG	GD
J	200618	DA	TD	NR

JONSON STREET

NEW BOUNDARY

EXISTING BOUNDARY

19750

PROPOSED LEASE
92 m%%134

PROPOSED LEASE
41 m%%134

SITE AREA 5521 SQM

EXISTING PADMOUNT

HOTEL SITE

42
4128 m%%134

41
6814 m%%134

175°09'45" 60|25

80|0 Exist

175°09'45" 96|59

10|55 3|86 2|9 11|12 2|9 10|55 3|86 11|12 3|86 10|55 3|86 6|12

76|84 Exist

18|296

DP258385

1

85°09'45" 62|685

85°09'45" 52|52

265°09'45" 70|54

144°19'45" 33|272

148°00' 22|55

161°27'45" 29|035

161°27'45" 12|425

85°09'45" 5|03

85°09'45" 18|02

265°09'45" 52|244

5

DP 619224

15|51

355°15'15"

85°09'45" 7|83

5|102

167°49'05" 20|944

166°49'05" 31|985

2|728

64|49 Exist

355°09'45" 44|74

76|84 Exist

355°09'45" 96|59

10
DP 617509

RAILWAY LAND

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106 JONSON STREET, BYRON BAY

SITE SURVEY

PRELIMINARY

DWG NO. NRA-84169-DD-SK0005
JOB NO. 53.162.C18 REV. J

SCALE 1 : 200@ A1 / 1 : 400@ A3
DATE 18/06/2020 10:08:47 AM

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REV.	DATE	DESCRIPTION	DRAWN	CHECKED
B	190308	DA	JG	GD
C	190318	DA	JG	GD
F	200609	DA	TD	NR
J	200618	DA	TD	NR

JONSON STREET

JONSON STREET

JONS

NEW BOUNDARY

NEW BOUNDARY

EXISTING BOUNDARY

EXISTING STREET TREES TO BE RETAINED

EXISTING PADMOUNT

EXISTING TREES AND GARDEN TO BE REMOVED

FOOTPATH AND CONCRETE KERBING TO BE DEMOLISHED

BUILDING TO BE DEMOLISHED

CONCRETE KERBING TO BE DEMOLISHED

BLOCK WALL TO BE DEMOLISHED

FOOTPATH TO BE DEMOLISHED

Carpark

Carpark

Carpark

Existing Shops

Existing Shops

Existing Shops

Woolworths Supermarket

5 DP 619224

6 DP 619224

7 DP 619224

8 DP 617509

9 DP 617509

10 DP 617509

170°09'45" 76.19

175°09'45" 66.0

85°09'45" 62.885

85°09'45" 52.52

85°09'45" 5.03

85°09'45" 18.02

85°09'45" 5.102

85°09'45" 2.428

161°27'45" 29.035

161°27'45" 12.425

166°49'05" 31.985

167°49'05" 20.944

168°37'25" 2.385

167°49'05" 19.25

15.51 355°45'45"

47.52 355°09'45"

21.462 355°09'45"

64.49 355°09'45"

52.434 177°51'27"

17.63 168°37'25"

AILWAY

LAND

RAILWAY

LAND

RAILWA

N

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106 JONSON STREET, BYRON BAY

DEMOLITION PLAN

DWG NO. NRA-84169-DD-SK0010

JOB NO. 53.162.C18 REV. J

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REV.	DATE		DESCRIPTION	DRAWN	CHECKED
15	181129	DA		JG	GD
16	181219	DA		JG	GD
A	190107	DA		JG	GD
J	200618	DA		TD	NR

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106 JONSON STREET, BYRON BAY

RENDERING

DWG NO. NRA-84169-DD-SK0500
JOB NO. 53.162.C18 REV. J
SCALE @ A1
DATE 18/06/2020 10:08:51 AM

PRELIMINARY

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REV.	DATE		DESCRIPTION	DRAWN	CHECKED
16	181219	DA		JG	GD
A	190107	DA		JG	GD
J	200618	DA		TD	NR

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RENDERING

DWG NO. NRA-84169-DD-SK0505
JOB NO. 53.162.C18 REV. J

SCALE @ A1
DATE 18/06/2020 10:08:53 AM

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REV.	DATE		DESCRIPTION	DRAWN	CHECKED
14	181121	DA		JG	GD
15	181129	DA		JG	GD
16	181219	DA		JG	GD
A	190107	DA		JG	GD
C	190318	DA		JG	GD
E	190401	DA		JG	GD
J	200618	DA		TD	NR

1 **Site**
SK4000 1 : 500

GFA BY LEVELS			
Comments	**Level**	**Name**	**Area**
PROPOSED HOTEL	Basement Level 1	GFA COMMERCIAL	45 m²
PROPOSED HOTEL	Basement Level 1	GFA STAFF	116 m²
PROPOSED HOTEL	Ground Level	GFA COMMERCIAL	1347 m²
PROPOSED HOTEL	Ground Level	GFA HOUSE KEEPING	97 m²
PROPOSED HOTEL	Ground Level	GFA STAFF	439 m²
PROPOSED HOTEL	Ground Level	GFA STORAGE	57 m²
PROPOSED HOTEL	Level 1	GFA COMMERCIAL	2228 m²
PROPOSED HOTEL	Level 1	GFA CORRIDOR	308 m²
PROPOSED HOTEL	Level 1	GFA HOUSE KEEPING	39 m²
PROPOSED HOTEL	Level 2	GFA COMMERCIAL	2228 m²
PROPOSED HOTEL	Level 2	GFA CORRIDOR	310 m²
PROPOSED HOTEL	Level 2	GFA HOUSE KEEPING	45 m²
PROPOSED HOTEL	POOL DECK	GFA COMMERCIAL	46 m²
PROPOSED HOTEL	POOL DECK	GFA STORAGE	24 m²
			7331 m²

GENERAL NOTES:

GFA COMMERCIAL INCLUDING RESTAURANT, CONFERENCE, HOTEL ROOMS AND ETC.

GFA STAFF INCLUDING FRONT OFFICE, LOCKER, TOILETS AND OTHER STAFF FACILITIES.

GFA AREA IS MEASURED BY INTERNAL LINE OF EXTERIOR WALL AND INTERNAL LINE OF SEPARATING WALL.

GFA:7331㎡

NUMBER OF PARKING SPACES		
Mark	**Level**	**Count**
CARPARK	Basement Level 1	96
CARPARK PWD	Basement Level 1	4
CARPARK SMALL	Basement Level 1	1
CARPARK VAN	Basement Level 1	2

103 CARPARK SPACES, 5 MOTOR BIKE, 54 BIKES

SCHEDULE OF ROOMS		
Occupancy	**Count**	**Comments**
TYPE A	8	25㎡
TYPE B	28	26㎡
TYPE C	28	27㎡
TYPE D	7	26-27㎡
TYPE E	20	29㎡
TYPE F	49	30㎡
TYPE G	2	37㎡
TYPE H	2	39㎡
TYPE I	2	45㎡

TOTAL HOTEL ROOMS: 146

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106 JONSON STREET, BYRON BAY

SITE PLAN

DWG NO. NRA-84169-DD-SK1000
JOB NO. 53.162.C18 REV. J

SCALE As indicated@ A1 / 1 : 1000@ A3
DATE 18/06/2020 10:09:31 AM

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REV.	DATE		DESCRIPTION	DRAWN	CHECKED
16	181219	DA		JG	GD
A	190107	DA		JG	GD
C	190318	DA		JG	GD
H	200617	DA		TD	NR

B01 SCHEDULE OF AREA

Level	Name	Area	Count	Department
* BACK OF HOUSE				
Basement Level 1	MAINTENANCE STORE	71 m²	1	* BACK OF HOUSE
Basement Level 1	STAFF MALE + FEMALE LOCKERS	95 m²	1	* BACK OF HOUSE
		166 m²		
* CIRCULATION				
Basement Level 1	LIFT LOBBY	43 m²	1	* CIRCULATION
		43 m²		
* PLANT/SERVICE				
Basement Level 1	GOODS LIFT	7 m²	1	* PLANT/SERVICE
Basement Level 1	SERVICE	72 m²	2	* PLANT/SERVICE
		79 m²		
BACK OF HOUSE				
Basement Level 1	ADMIN	61 m²	1	BACK OF HOUSE
Basement Level 1	IT	16 m²	1	BACK OF HOUSE
Basement Level 1	STAFF CANTEEN	41 m²	1	BACK OF HOUSE
		118 m²		
GUEST FUNCTION				
Basement Level 1	PWD	4 m²	1	GUEST FUNCTION
		4 m²		
TOTAL GFA - BASEMENT		122 m²		

GROUND FLOOR SCHEDULE OF AREA

Level	Name	Area	Count	Department
* BACK OF HOUSE				
Ground Level	LOADING	173 m²	1	* BACK OF HOUSE
		173 m²		
* PLANT/SERVICE				
Ground Level	MAIN SWITCH	15 m²	1	* PLANT/SERVICE
Ground Level	REFUSE	13 m²	1	* PLANT/SERVICE
		28 m²		
BACK OF HOUSE				
Ground Level	HOUSE KEEPING	65 m²	1	BACK OF HOUSE
Ground Level	OFFICE	15 m²	1	BACK OF HOUSE
Ground Level	STAFF TOILET	31 m²	1	BACK OF HOUSE
		110 m²		
CIRCULATION				
Ground Level	PASSAGEWAY	67 m²	3	CIRCULATION
Ground Level	SERVICE CORRIDOR	167 m²	1	CIRCULATION
		234 m²		
F&B_RETAIL				
Ground Level	KITCHEN	137 m²	1	F&B_RETAIL
Ground Level	RESTAURANT / LOBBY LOUNGE	528 m²	1	F&B_RETAIL
		665 m²		
FRONT OF HOUSE				
Ground Level	FRONT OFFICE	42 m²	1	FRONT OF HOUSE
Ground Level	LOBBY	290 m²	1	FRONT OF HOUSE
Ground Level	LUGGAGE	10 m²	1	FRONT OF HOUSE
		342 m²		
FUNCTION/CONFERENCE				
Ground Level	AV	10 m²	1	FUNCTION/CONFERENCE
Ground Level	CONFERENCE	236 m²	1	FUNCTION/CONFERENCE
Ground Level	DISPENSE BAR	14 m²	1	FUNCTION/CONFERENCE
Ground Level	FURNITURE STORE	40 m²	1	FUNCTION/CONFERENCE
Ground Level	MEETING	108 m²	2	FUNCTION/CONFERENCE
Ground Level	PRE FUNCTION	77 m²	1	FUNCTION/CONFERENCE
		485 m²		
GUEST FUNCTION				
Ground Level	GUEST FEMALE	26 m²	1	GUEST FUNCTION
Ground Level	GUEST MALE	19 m²	1	GUEST FUNCTION
Ground Level	GUEST PWD	7 m²	1	GUEST FUNCTION
		52 m²		
TOTAL GFA - GROUND		1888 m²		

L01 SCHEDULE OF AREA

Level	Name	Area	Count	Department
* CIRCULATION				
Level 1	LIFT LOBBY	23 m²	1	* CIRCULATION
		23 m²		
* PLANT/SERVICE				
Level 1	COMMS	5 m²	1	* PLANT/SERVICE
Level 1	SERVICE	32 m²	1	* PLANT/SERVICE
		37 m²		
BACK OF HOUSE				
Level 1	HOUSE KEEPING	56 m²	4	BACK OF HOUSE
		56 m²		
CIRCULATION				
Level 1	PASSAGEWAY	266 m²	2	CIRCULATION
		266 m²		
GUEST ROOMS				
Level 1	DELUXE ROOM	75 m²	2	GUEST ROOMS
Level 1	EXECUTIVE ROOM	374 m²	14	GUEST ROOMS
Level 1	LUXURY ROOM	721 m²	24	GUEST ROOMS
Level 1	SPECIAL NEEDS ROOM	110 m²	4	GUEST ROOMS
Level 1	STANDARD ROOM	469 m²	18	GUEST ROOMS
Level 1	SUITE	45 m²	1	GUEST ROOMS
Level 1	SUPERIOR ROOM	288 m²	10	GUEST ROOMS
		2083 m²		
TOTAL GFA - LEVEL 01		2405 m²		

L02 SCHEDULE OF AREA

Level	Name	Area	Count	Department
* CIRCULATION				
Level 2	LIFT LOBBY	25 m²	1	* CIRCULATION
		25 m²		
* PLANT/SERVICE				
Level 2	COMMS	8 m²	1	* PLANT/SERVICE
Level 2	SERVICE	32 m²	1	* PLANT/SERVICE
		40 m²		
BACK OF HOUSE				
Level 2	HOUSE KEEPING	55 m²	4	BACK OF HOUSE
Level 2	STORAGE	12 m²	1	BACK OF HOUSE
		68 m²		
CIRCULATION				
Level 2	PASSAGEWAY	266 m²	2	CIRCULATION
		266 m²		
GUEST ROOMS				
Level 2	DELUXE ROOM	76 m²	2	GUEST ROOMS
Level 2	EXECUTIVE ROOM	374 m²	14	GUEST ROOMS
Level 2	LUXURY ROOM	751 m²	25	GUEST ROOMS
Level 2	SPECIAL NEEDS ROOM	80 m²	3	GUEST ROOMS
Level 2	STANDARD ROOM	468 m²	18	GUEST ROOMS
Level 2	SUITE	45 m²	1	GUEST ROOMS
Level 2	SUPERIOR ROOM	289 m²	10	GUEST ROOMS
		2083 m²		
TOTAL GFA - LEVEL 02		2417 m²		

POOL DECK SCHEDULE OF AREA

Level	Name	Area	Count	Department
BACK OF HOUSE				
POOL DECK	STORAGE	22 m²	1	BACK OF HOUSE
		22 m²		
GUEST FUNCTION				
POOL DECK	GUEST FEMALE	15 m²	1	GUEST FUNCTION
POOL DECK	GUEST MALE	14 m²	1	GUEST FUNCTION
POOL DECK	POOL	195 m²	1	GUEST FUNCTION
POOL DECK	PWD	13 m²	2	GUEST FUNCTION
POOL DECK	RECREATION	310 m²	1	GUEST FUNCTION
POOL DECK	ROOF TOP BAR	0 m²	1	GUEST FUNCTION
POOL DECK	WEDDING	265 m²	1	GUEST FUNCTION
		811 m²		
TOTAL GFA - PLANT		833 m²		

TOTAL AREA

Level	Area
Basement Level 1	411 m²
Ground Level	2089 m²
Level 1	2464 m²
Level 2	2482 m²
POOL DECK	834 m²
	8281 m²

* = NOT INCLUDED IN GFA CALCULATIONS

DA

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NRA-Collaborative Pty Ltd
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ACN 010 011 720
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106 JONSON STREET, BYRON BAY

AREA SUMMARY

DWG NO. NRA-84169-DD-SK1100
JOB NO. 53.162.C18 REV. H
SCALE @ A1
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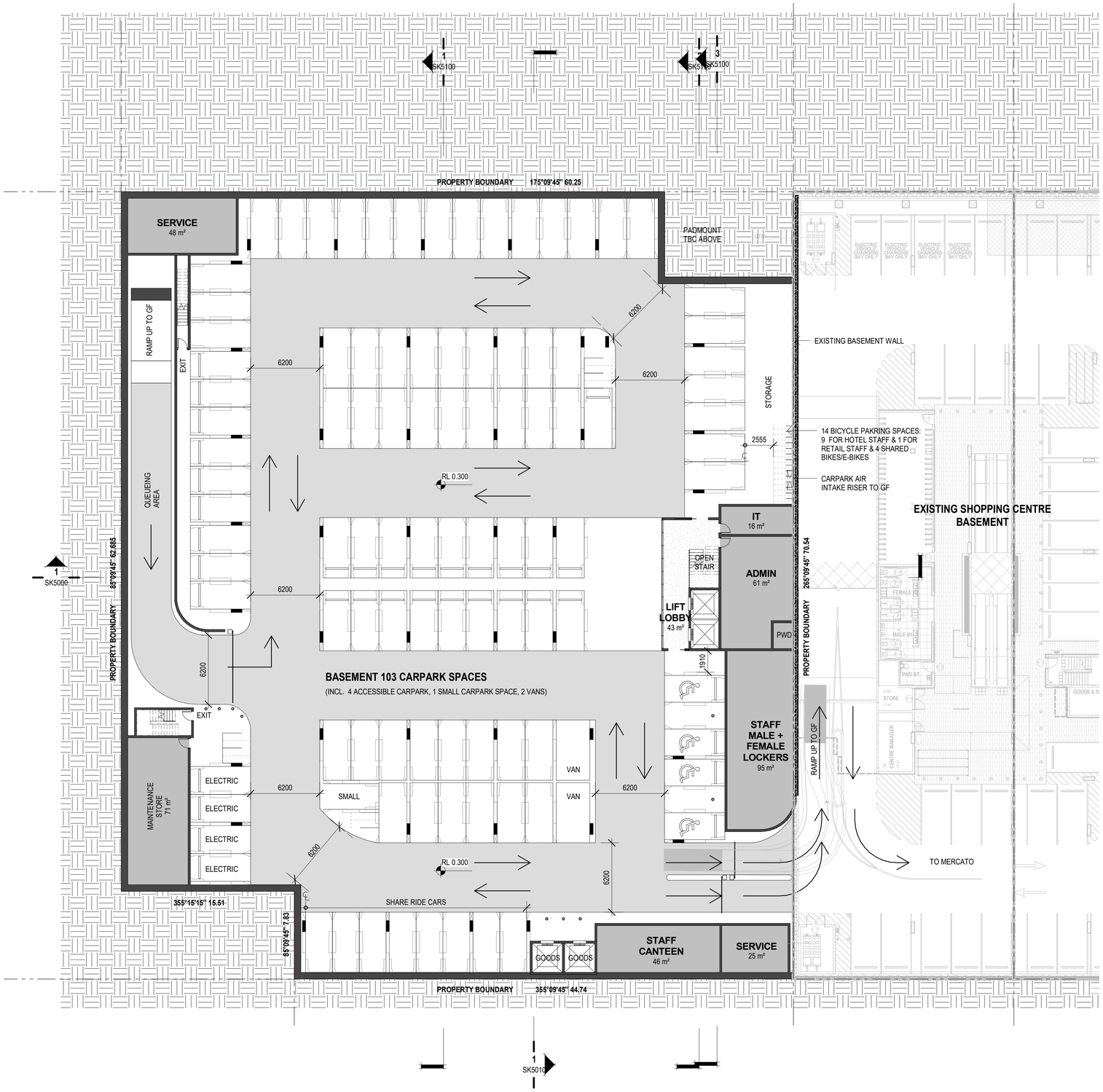
REV.	DATE		DESCRIPTION	DRAWN	CHECKED
15	181129	DA		JG	GD
16	181219	DA		JG	GD
A	190107	DA		JG	GD
B	190308	DA		JG	GD
C	190318	DA		JG	GD
G	200616	DA		TD	NR
J	200618	DA		TD	NR



- ADMIN
- GOODS LIFT
- IT
- LIFT LOBBY
- MAINTENANCE STORE
- PWD
- SERVICE
- STAFF CANTEEN
- STAFF MALE + FEMALE LOCKERS

NUMBER OF PARKING SPACES		
Mark	**Level**	**Count**
CARPARK	**Basement Level 1**	**96**
CARPARK PWD	**Basement Level 1**	**4**
CARPARK SMALL	**Basement Level 1**	**1**
CARPARK VAN	**Basement Level 1**	**2**

BASEMENT CARPARK SPACES: 103

BASEMENT MOTOR BIKE PARKING SPACES: 5

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106 JONSON STREET, BYRON BAY

BASEMENT

PRELIMINARY

DWG NO. NRA-84169-DD-SK2000
JOB NO. 53.162.C18 REV. J
SCALE 1 : 200@ A1 / 1 : 400@ A3
DATE 18/06/2020 10:09:38 AM

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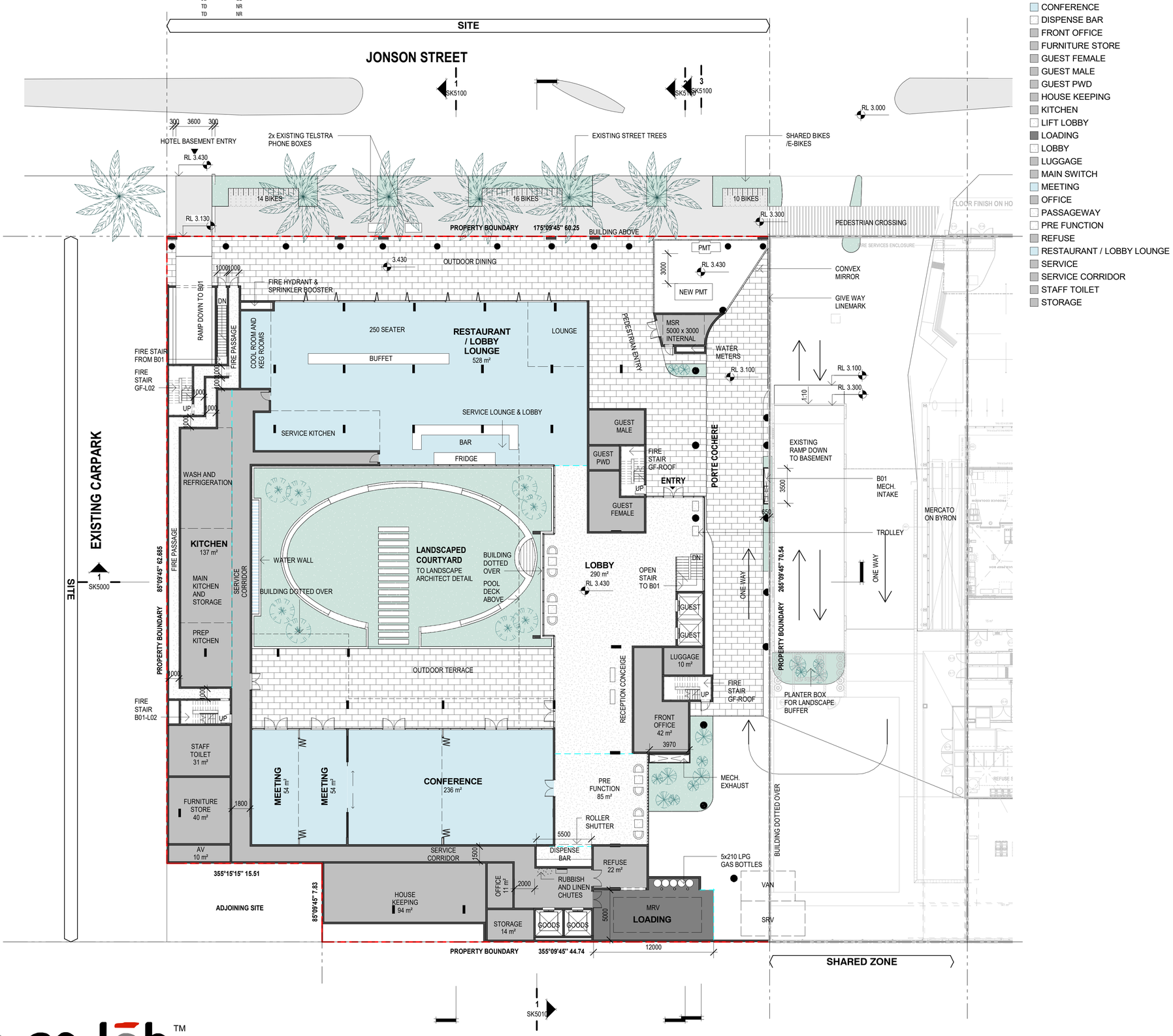
15	181129	DA		JG	GD
16	181219	DA		JG	GD
A	190107	DA		JG	GD
B	190308	DA		JG	GD
C	190318	DA		JG	GD
G	200616	DA		TD	NR
J	200618	DA		TD	NR



- AV
- CONFERENCE
- DISPENSE BAR
- FRONT OFFICE
- FURNITURE STORE
- GUEST FEMALE
- GUEST MALE
- GUEST PWD
- HOUSE KEEPING
- KITCHEN
- LIFT LOBBY
- LOADING
- LOBBY
- LUGGAGE
- MAIN SWITCH
- MEETING
- OFFICE
- PASSAGEWAY
- PRE FUNCTION
- REFUSE
- RESTAURANT / LOBBY LOUNGE
- SERVICE
- SERVICE CORRIDOR
- STAFF TOILET
- STORAGE

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GROUND LEVEL

PRELIMINARY

DWG NO. NRA-84169-DD-SK3000
JOB NO. 53.162.C18 REV. J
SCALE 1 : 200@ A1 / 1 : 400@ A3
DATE 18/06/2020 10:09:44 AM

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REV.	DATE	DESCRIPTION	DRAWN	CHECKED
12	181115	Preliminary	JG	GD
14	181121	DA	JG	GD
15	181129	DA	JG	GD
16	181219	DA	JG	GD
A	190107	DA	JG	GD
G	200616	DA	TD	NR
J	200618	DA	TD	NR

- COMMS
- DELUXE ROOM
- EXECUTIVE ROOM
- HOUSE KEEPING
- LIFT LOBBY
- LUXURY ROOM
- PASSAGEWAY
- SERVICE
- SPECIAL NEEDS ROOM
- STANDARD ROOM
- SUITE
- SUPERIOR ROOM

L01 SCHEDULE OF ROOMS

Level	Name	Occupancy	Count	Comments
Level 1	STANDARD ROOM	TYPE A	4	25m²
Level 1	STANDARD ROOM	TYPE B	14	26m²
Level 1	EXECUTIVE ROOM	TYPE C	14	27m²
Level 1	SPECIAL NEEDS ROOM	TYPE D	4	26-27m²
Level 1	SUPERIOR ROOM	TYPE E	10	29m²
Level 1	LUXURY ROOM	TYPE F	24	30m²
Level 1	DELUXE ROOM	TYPE G	1	37m²
Level 1	DELUXE ROOM	TYPE H	1	39m²
Level 1	SUITE	TYPE I	1	45m²

TOTAL HOTEL ROOMS: 73
8 DUAL KEY ROOMS
(INCLUDING 1 HOTEL ROOM/ACCESSIBLE ROOM COMBINATION)

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106 JONSON STREET, BYRON BAY

LEVEL 01

DWG NO. NRA-84169-DD-SK3010
JOB NO. 53.162.C18 REV. J
SCALE 1 : 200@ A1 / 1 : 400@ A3
DATE 18/06/2020 10:09:52 AM

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PRELIMINARY

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REV.	DATE	DESCRIPTION	DRAWN	CHECKED
12	181115	Preliminary	JG	GD
14	181121	DA	JG	GD
15	181129	DA	JG	GD
16	181219	DA	JG	GD
A	190107	DA	JG	GD
G	200616	DA	TD	NR
J	200618	DA	TD	NR

- COMMS
- DELUXE ROOM
- EXECUTIVE ROOM
- HOUSE KEEPING
- LIFT LOBBY
- LUXURY ROOM
- PASSAGEWAY
- SERVICE
- SPECIAL NEEDS ROOM
- STANDARD ROOM
- STORAGE
- SUITE
- SUPERIOR ROOM

L02 SCHEDULE OF ROOMS

Level	Name	Occupancy	Count	Comments
Level 2	STANDARD ROOM	TYPE A	4	25m²
Level 2	STANDARD ROOM	TYPE B	14	26m²
Level 2	EXECUTIVE ROOM	TYPE C	14	27m²
Level 2	SPECIAL NEEDS ROOM	TYPE D	3	26-27m²
Level 2	SUPERIOR ROOM	TYPE E	10	29m²
Level 2	LUXURY ROOM	TYPE F	25	30m²
Level 2	DELUXE ROOM	TYPE G	1	37m²
Level 2	DELUXE ROOM	TYPE H	1	39m²
Level 2	SUITE	TYPE I	1	45m²

TOTAL HOTEL ROOMS: 73
8 DUAL KEY ROOMS
(INCLUDING 1 HOTEL ROOM/ACCESSIBLE ROOM COMBINATION)

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LEVEL 02

DWG NO. NRA-84169-DD-SK3020 REV. J
JOB NO. 53.162.C18
SCALE 1 : 200@ A1 / 1 : 400@ A3
DATE 18/06/2020 10:09:59 AM

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REV.	DATE		DESCRIPTION	DRAWN	CHECKED
14	181121	DA		JG	GD
15	181129	DA		JG	GD
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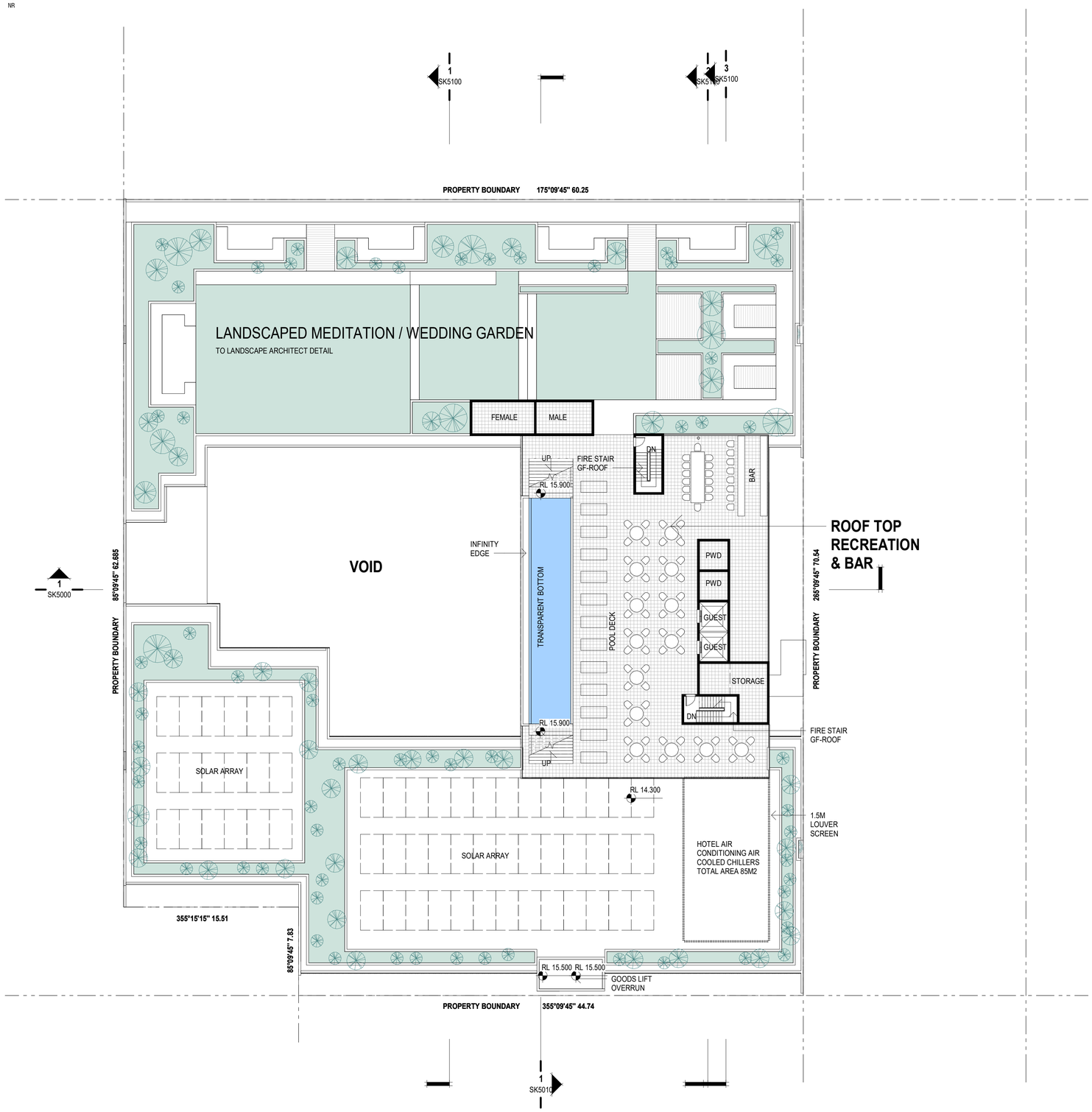

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106 JONSON STREET, BYRON BAY

PLANT & RECREATION DECK

DWG NO. NRA-84169-DD-SK3030
JOB NO. 53.162.C18 REV. J

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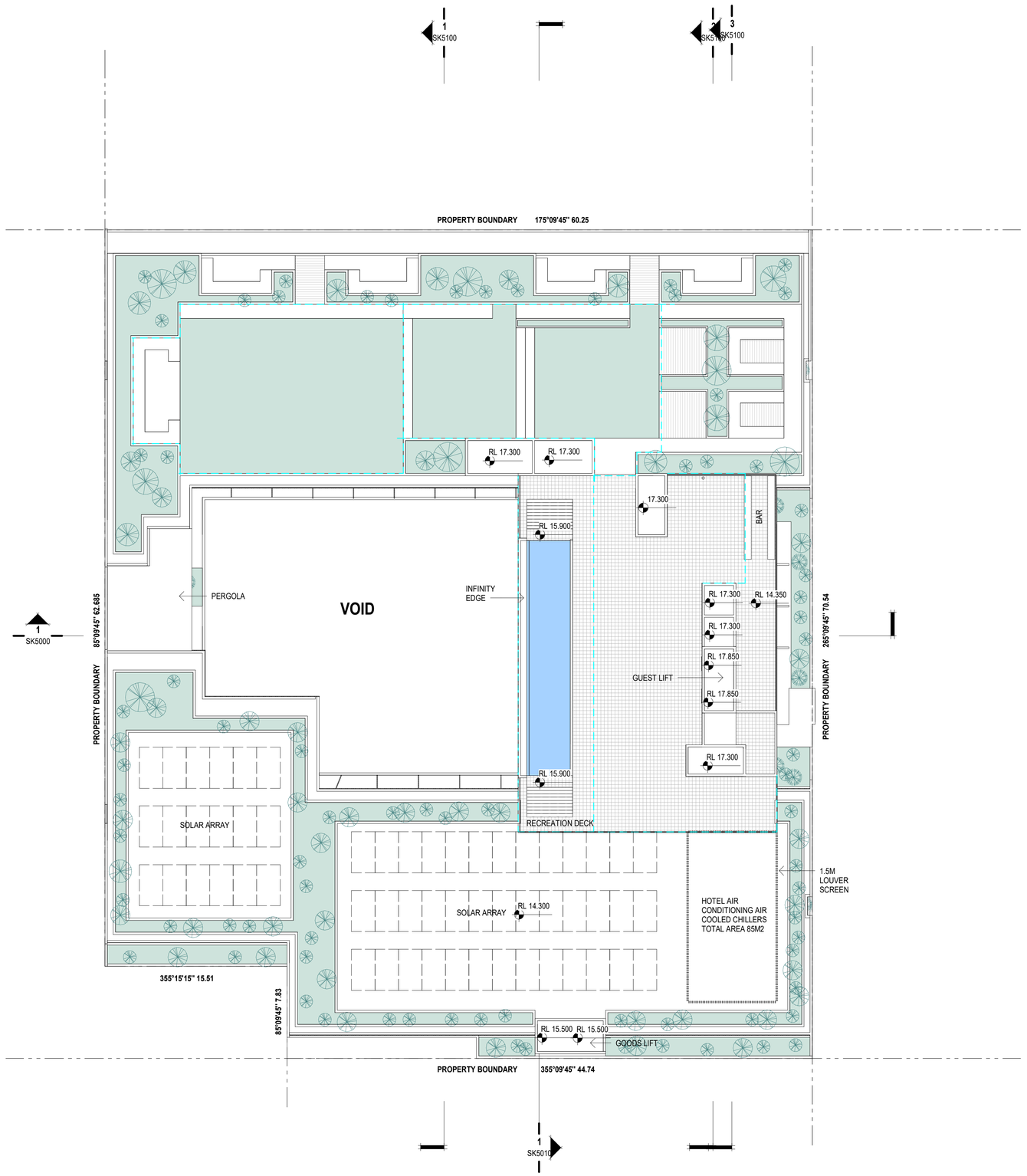

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ROOF

PRELIMINARY

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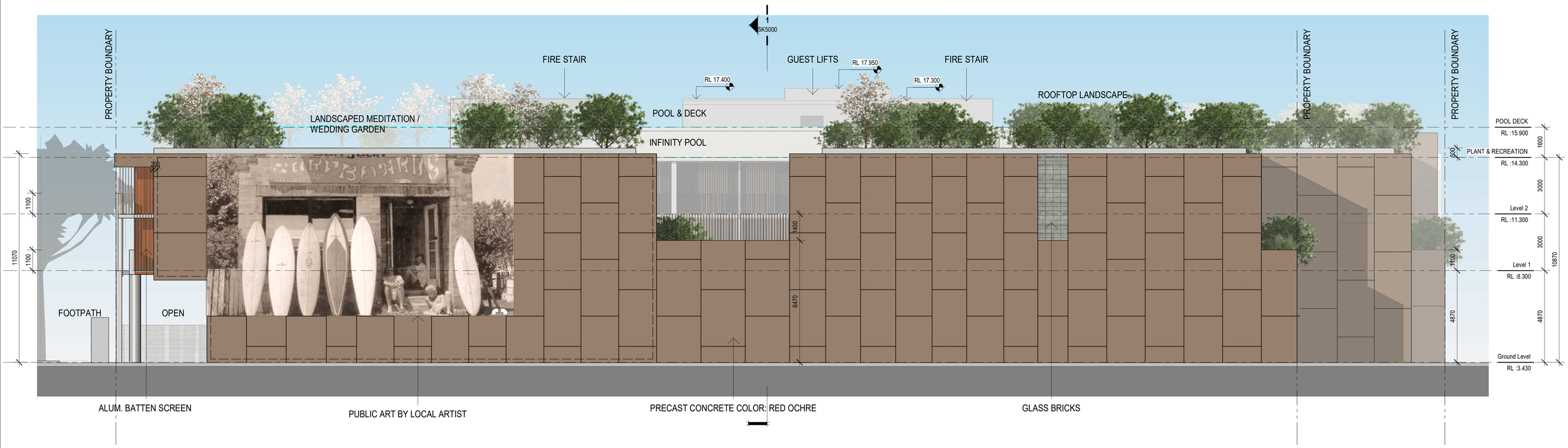

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NORTH ELEVATION

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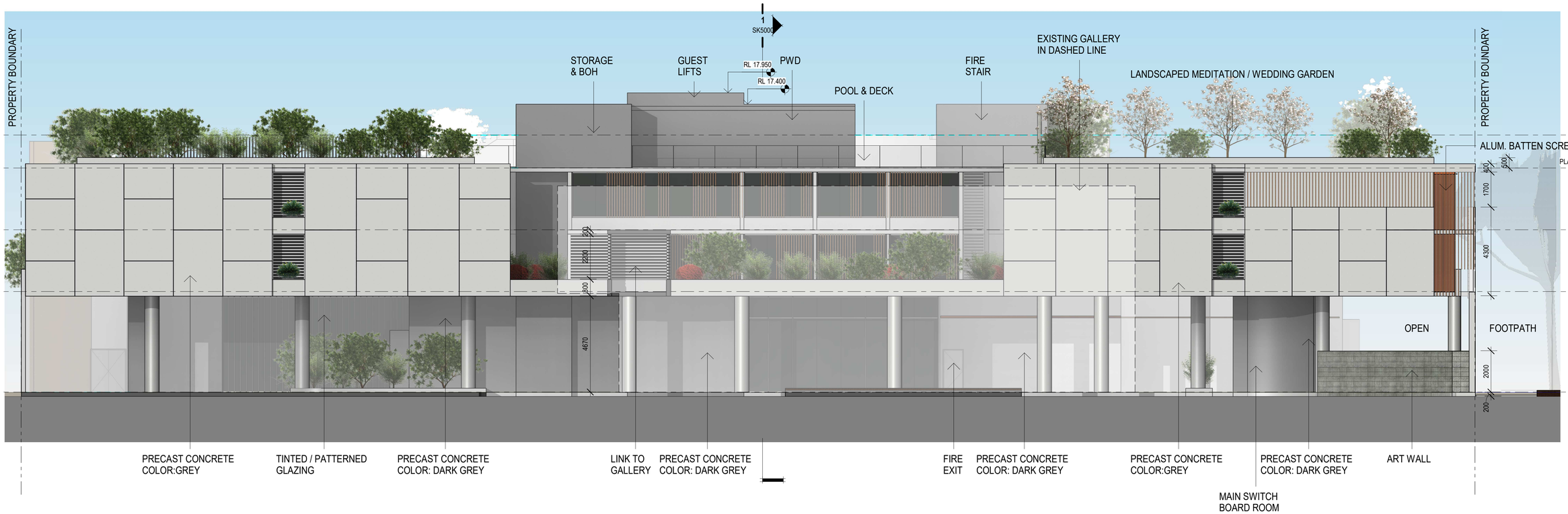

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106 JONSON STREET, BYRON BAY

SOUTH ELEVATION

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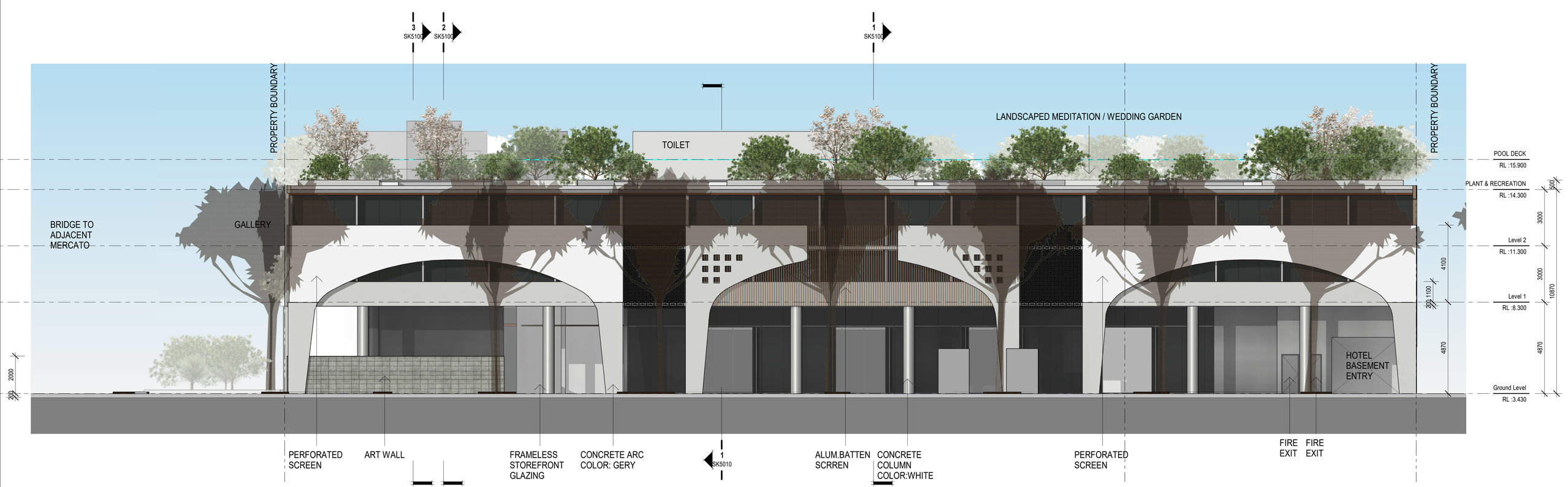

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106 JONSON STREET, BYRON BAY

EAST ELEVATION

PRELIMINARY

DWG NO. NRA-84169-DD-SK4200
JOB NO. 53.162.C18 REV. J
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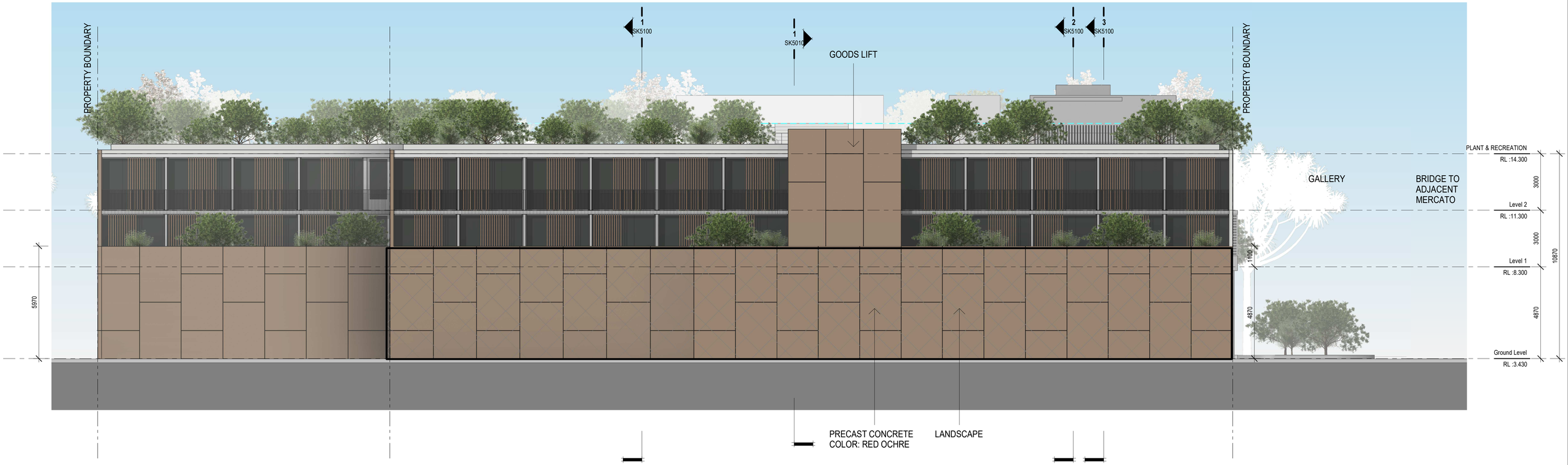

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106 JONSON STREET, BYRON BAY

WEST ELEVATION

DWG NO. NRA-84169-DD-SK4300
JOB NO. 53.162.C18 REV. J

SCALE As indicated@ A1 / 1 : 200@ A3
DATE 18/06/2020 10:23:18 AM

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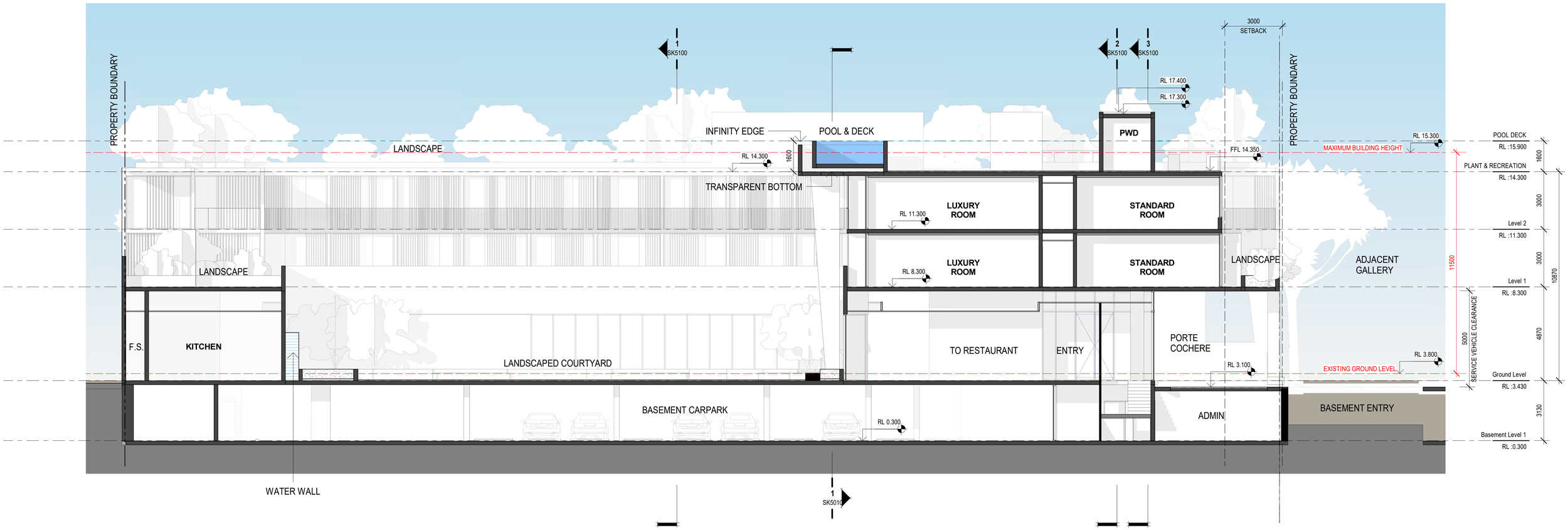

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SECTION A-A

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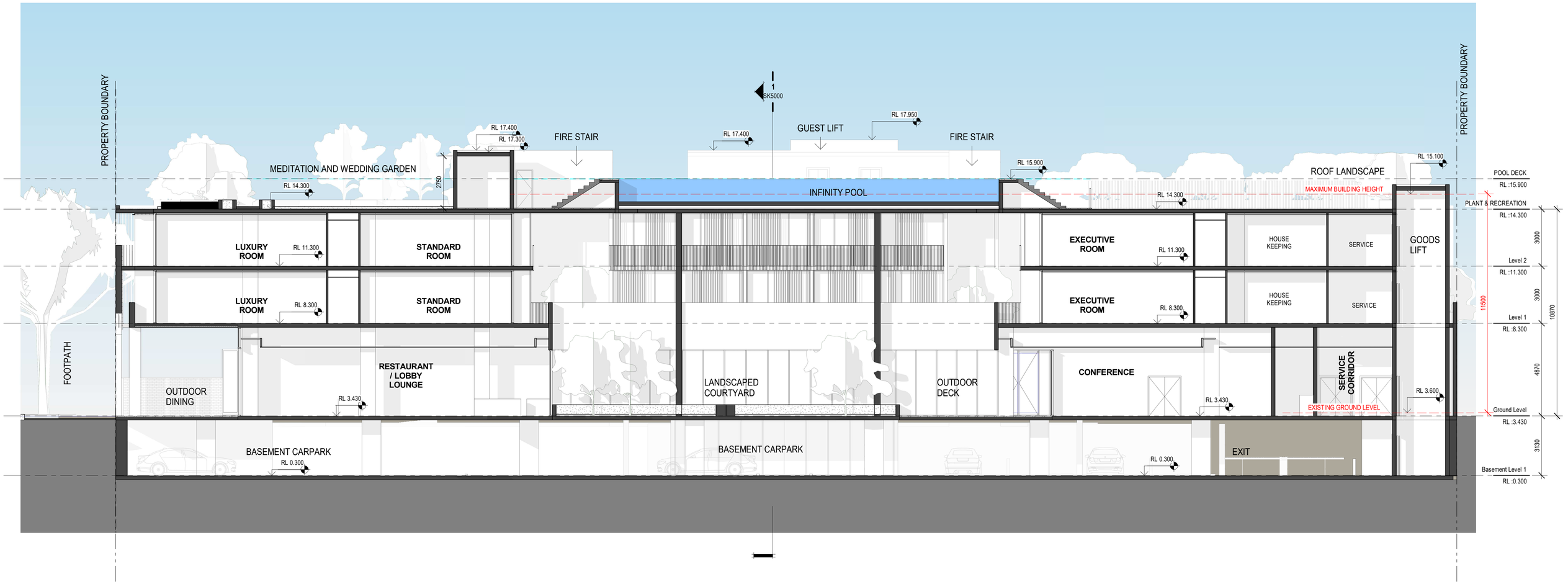

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SECTION B-B

PRELIMINARY

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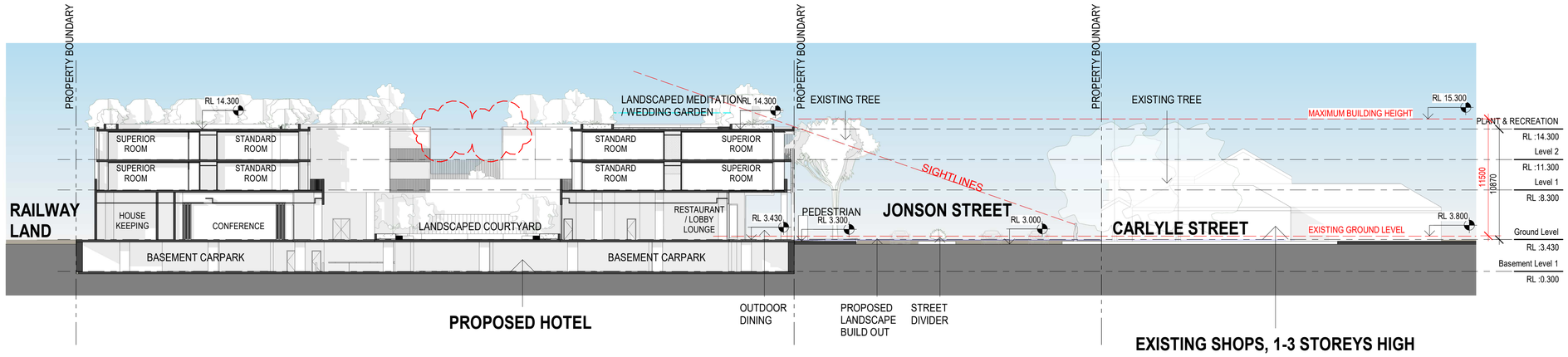

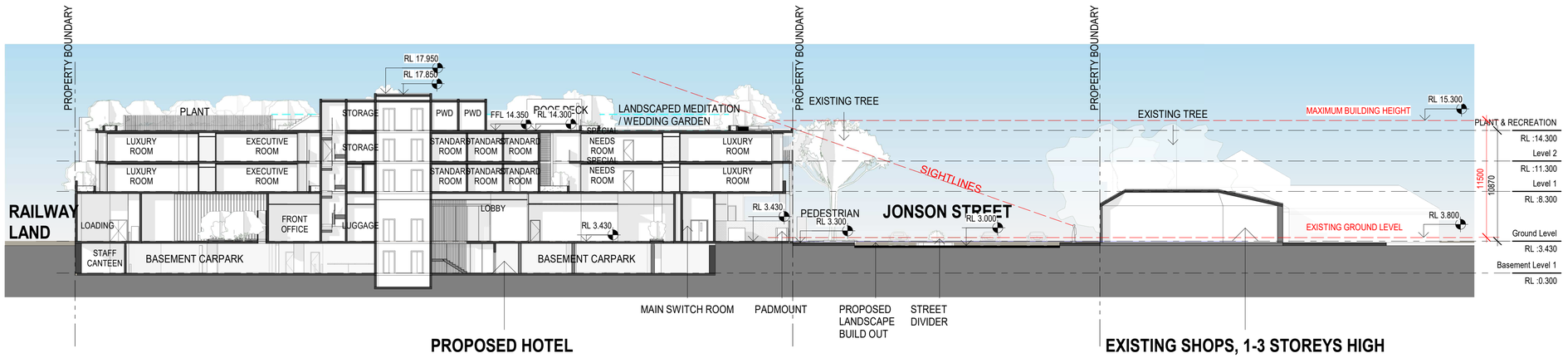

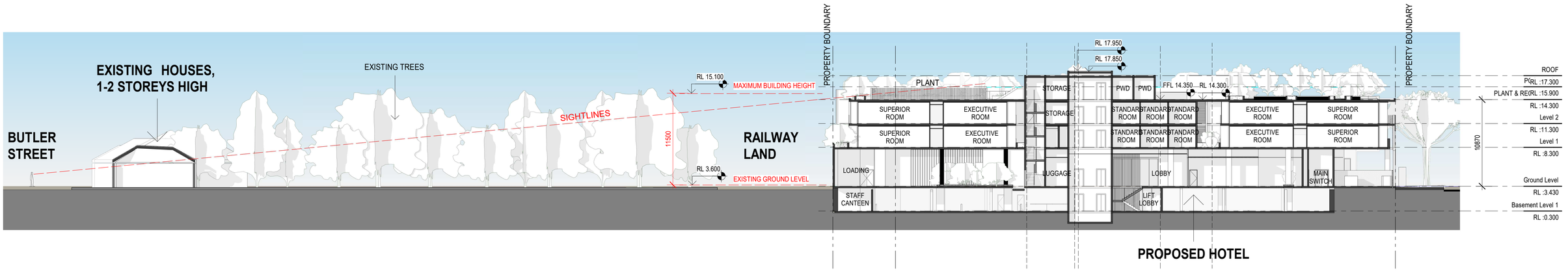

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106 JONSON STREET, BYRON BAY

STREET SECTION

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JOB NO. 53.162.C18 REV. J

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PRELIMINARY

2019NTH015

DA 10.2018.650.1 Mixed use development, Jonson Street, Byron Bay

ATTACHMENTS TO COUNCIL REPORT

2. LANDSCAPE CONCEPT PLANS

URBIS

'THE ESSENCE OF BYRON' HOTEL

106 JONSON STREET BYRON BAY

LANDSCAPE DEVELOPMENT APPLICATION REPORT

PREPARED FOR

MERCATO ON BYRON PTY LTD

28 NOVEMBER 2018

REVISION (B)

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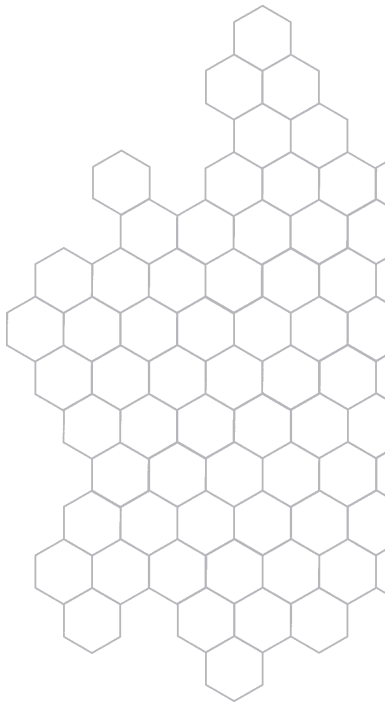
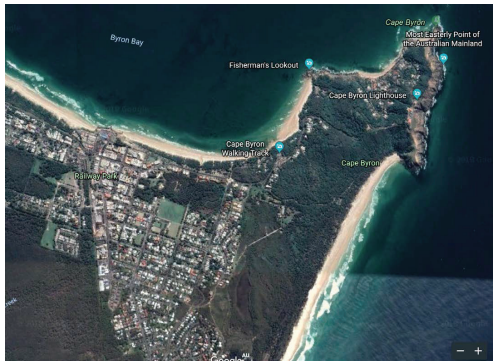


SITE CONTEXT

The Essence of Byron Hotel development sits on the north western edge of the township of Byron Bay adjacent shopping centre (south), Heavily vegetated single lot dwellings (West) and overlooks a carpark (north). The site's northern elevation orientates itself to Byron Bay (680m) while the east looks to the eastern Cape Bryon Lighthouse (2500m).

The site itself is surrounded by unique amenities and Facilities; in addition to a direct elevated line of sight to Byron Bay and being physical located on the edge of the town centre within walking distance of the parks, cafes, shopping precincts and natural features such as the beach, bay and Cape Byron



SITE CONTEXT PLAN: LP01

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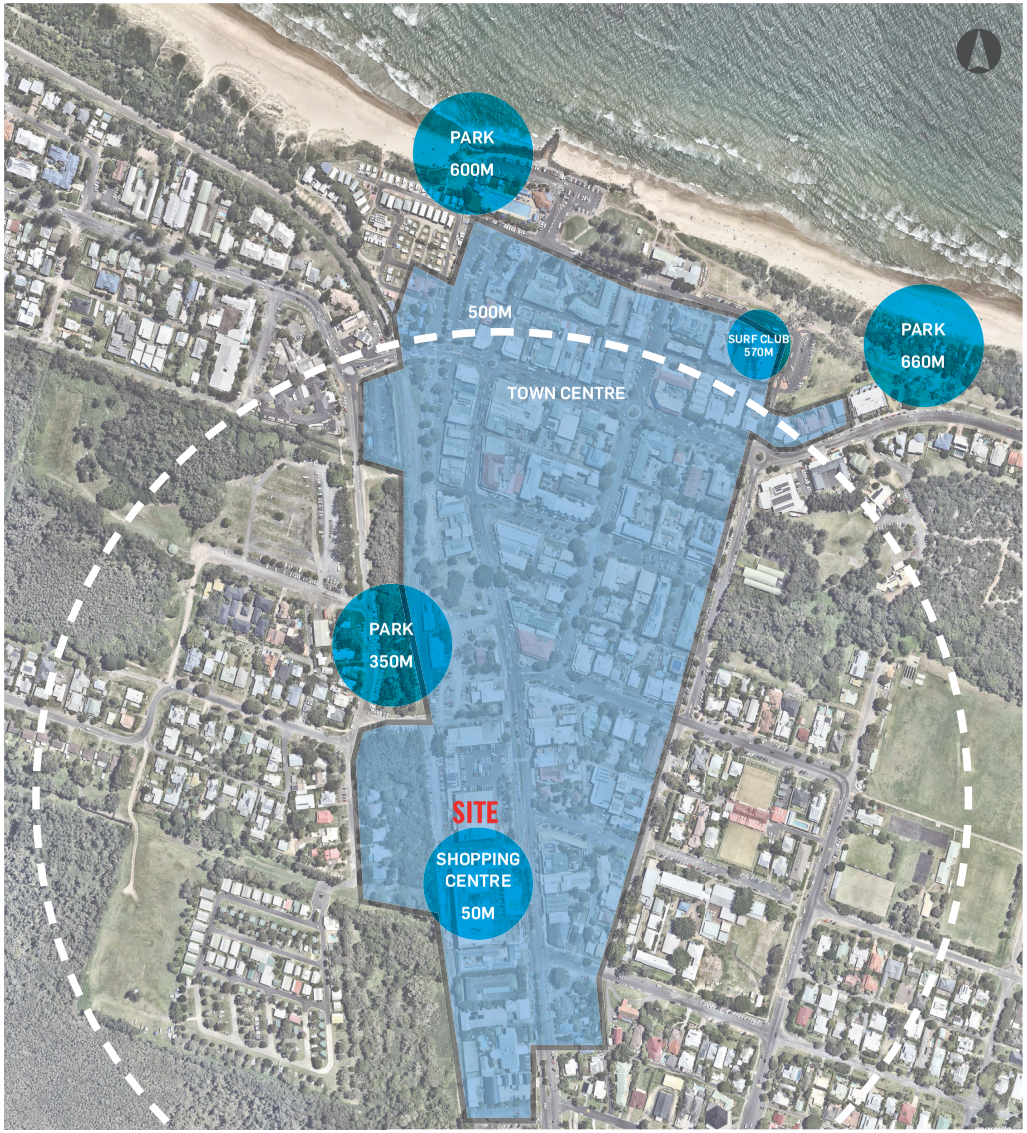


SITE ANALYSIS

SIGHT LINES

Views from the development will be enhanced ith elevation. The Pool Deck and Recreational Terrace will have superior views to the township, Byron Bay and Cape Byron Lighthouse with a mix of openness and frame views through strategic planting.

PREVAILING WINDS

Coastal exposure is a beautiful and unique thing. The salty prevailing South Westerly winds will strongly influence the external landscape design.

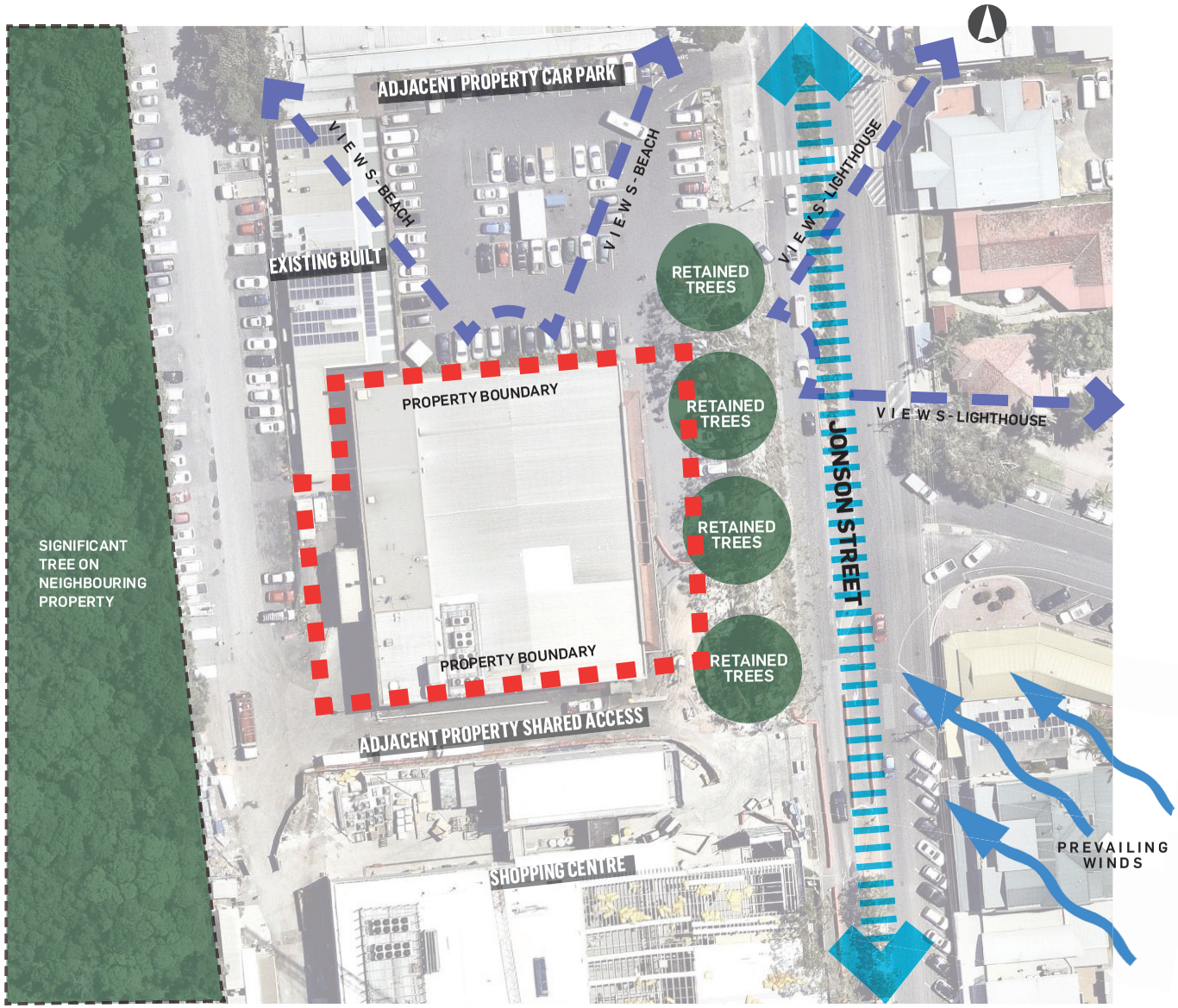
EXISTING VEGETATION

No significant vegetation is identified on site.

Significant tree is evident on neighbouring property to the West. This will provide a green backdrop to the development and provide an opportunity to take advantage of view corridors from the site.

A row of existing mature Eucalyptus Trees line to footpath. These trees are to be retained pending arborcultural assessment and appropriateness (ie. leaf & branch drop).

Urbis notes that establishing understorey planting beneath these trees may be difficult and new evergreen shade tree species may be considered at a later date.



LANDSCAPE SITE ANALYSIS PLAN: LP02

SCALE - NTS

LANDSCAPE DESIGN VISION

DESIGN VISION

The central driver behind the design of The Essence of Byron Hotel is 'Lifestyle' and connection with the township of Byron Bay.

The proposed development, built form and supporting landscape treatments aim to achieve a harmonious balance between Architecture, landscape design, public access, access, climate and local character while providing a new wedding venue. The development will create a highly accessible, relaxed, yet vibrant atmosphere that is enhanced by a lush coastal sub-tropical planting palette and spatial quality.

The Landscape design shall address both public and privatespaces; ensuring a sense of continuity across the project. The public spaces shall include the streetscape frontage and the porte cochere entry while and private spaces will include the central courtyard, rooftop pool deck and recreational activity zone / wedding event lawn.

Each space is looked at individually and holistically to create intimate, flexible space that will sit within the greater context of not only the hotel but the Byron Bay Township. These spaces will be vibrant, healthy micro-climatic that contribute to social fabric of Byron Bay while providing spaces such as the courtyard, event lawns and seating niches for private events.

SUB-TROPICAL DESIGN

The landscape is intended to be integrated into the built form, creating a synergy between built-form and public realm, which offers a sub-tropical feel, that is climatically responsive and site-sensitive.

ACTIVATION

The landscape component of the development will encourage and support ground plane activation through a high accessible, high quality spaces such as the central courtyard, porte cochere arrival zone and streetscape frontage.

COASTAL FEEL

An underlying coastal character and feel will be evident from the salty outdoor air, down to the materials and planting selections.

WEDDING

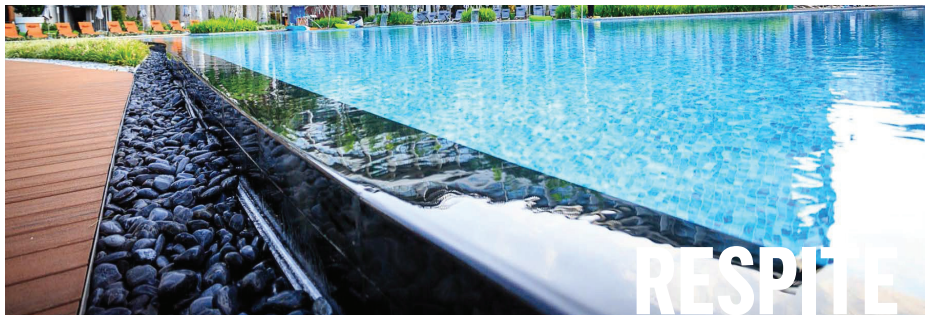
The orientation, sightlines and facilities make the Mercato Hotel a ideal wedding destination with outstanding views to Byron Bay from the recreational deck. The flexible courtyard and recreational terrace allow these spaces to be easily


EXPERIENCE


WEDDING


VIBRANT
LIFESTYLE
GREEN


LUSH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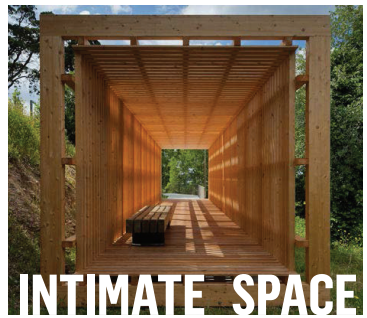

INTIMATE SPACE

LANDSCAPE PLAN

GROUND FLOOR

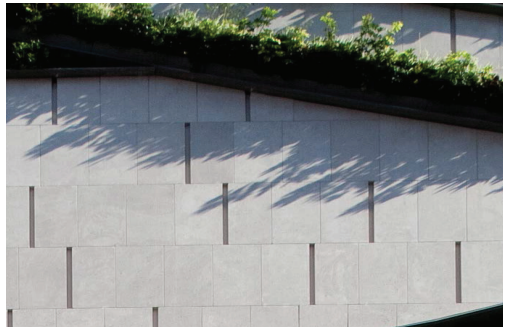
The courtyard, porte cochere and streetscape will create their own microclimates through built form, lush landscaping orientation; enhanicng useablility and promotting activation of these important spaces.

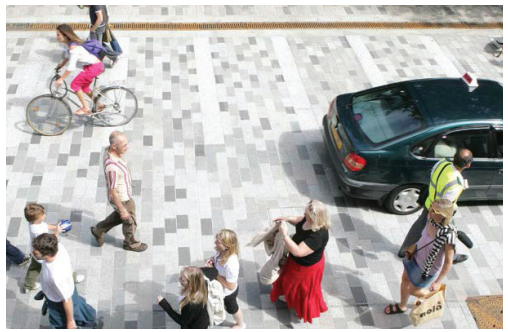
The landscape treatments for Essence on Byron Hotel present a soft landscaped veil of lush green vegetation; providing privacy to the development while allowing sufficient passive surveillance to the street.

The courtyard is public retreat that is open to the weather / sky; acting as a light well and passive climate control space. The area is visible from the restaurant, lobby and conference /wedding / reception facilities. This space can be booked for private events.

The planting will be lush, dense and sub-tropical; accentuated by the electronic water wall that can be programmed to display time, messages or images. An additional water feature, cantenary lighting & feature art piece will provide the visual interest within the space and can be viewed from Wedding / Conference / Porte cochere / Restaurant.

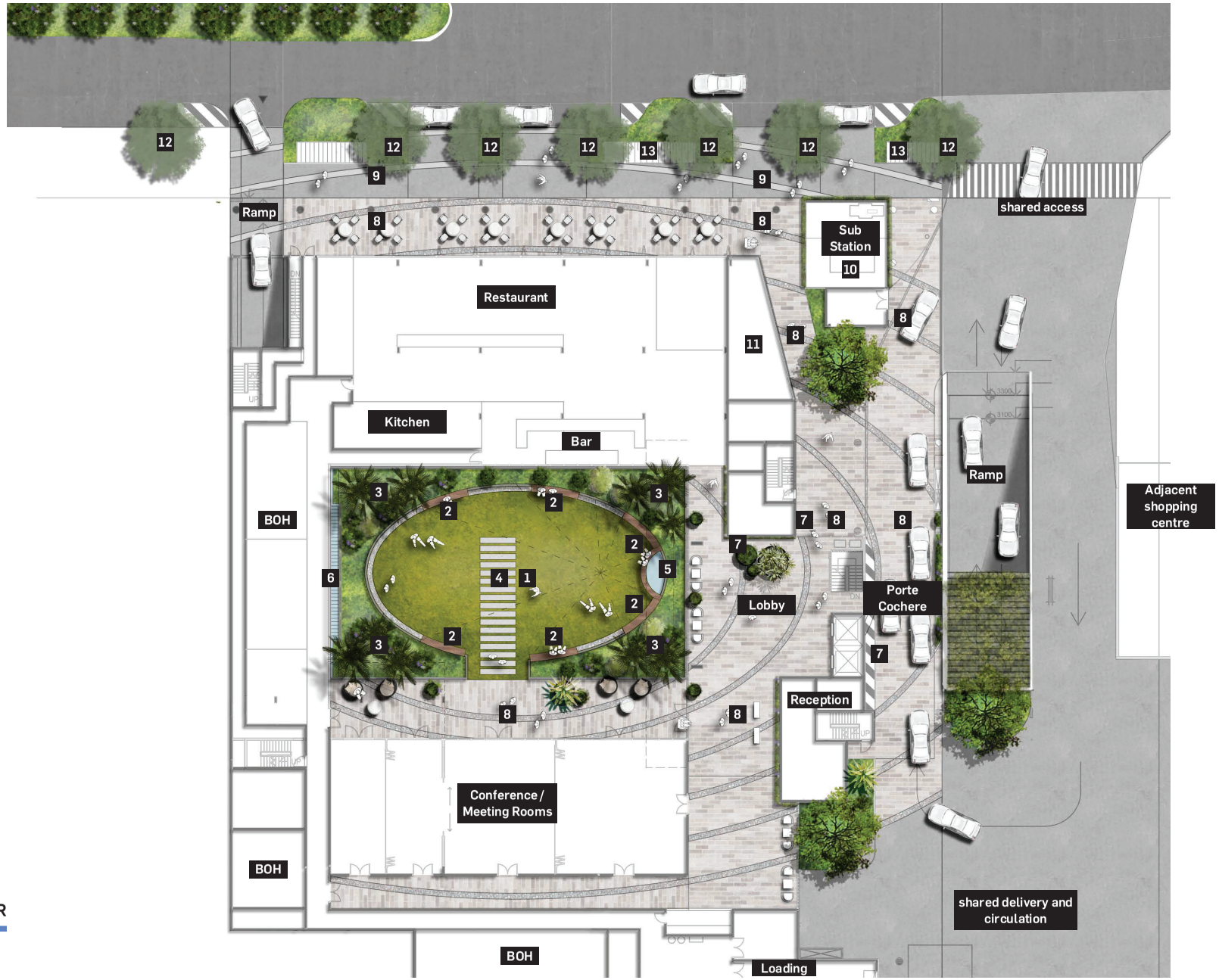
The lobby shall be softened via a series of green walls, pots and amenity planting while the streetscape present a shady green oasis to the porte cochere and street that will help with the passive cooling of these spaces.





LEGEND

1. Central Courtyard with feature Electronic Water Wall, Cantenary Lighting, Focal Sculpture and Communal Seating,
2. Elliptical Communal gathering zone with bench seating and lush planting,
3. Sub-tropical plantings of tree ferns and shrub planting,
4. Stone steppers leading into Court yard from Conference / Wedding Facilities,
5. Water Feature with water jet & misting sprays,
6. Electronic Waterfeature,
7. Green walls & groups of pots to soften build form & create a relaxed ambience.
8. Paving patterns generate from elliptical courtyard form; delineating the courtyard as the central focal point. This space is visible from the arrival porte cochere, restaurant, conference / meeting rooms and roof terreace.
9. Concrete patterns to to pavement utilising approved BSC concrete finish with sandblast pattern.
10. Feature Greenwall, timber & structural elements to mitigate visual impact of substation.
11. Retail space
12. Retained Eucalyptus trees
13. Bike parks



LANDSCAPE PLAN - GROUND FLOOR

SCALE - 1:400 (A3)

LANDSCAPE PLAN

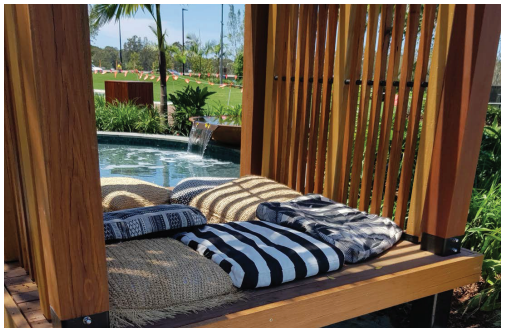
ROOF TERRACE & POOL DECK

The courtyard and pool-side spaces will become comfortable, micro-climatic spaces, whilst flexible to enable communal engagement.

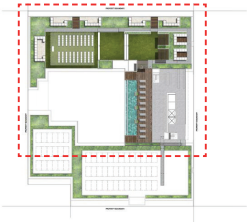
The Pool Deck provides the guests with access to immaculate ocean and coastal views in this iconic location. The pool, restaurant and bar are softened with planters pots and greenwalls; providing a relaxed tropical ambience.

The Roof Terrace landscape allows for additional recreational amenity, softened by raised planters to the Northern, Southern and Eastern edges. Nestled amongst the planting are private seating niches with views to the surrounding ocean and Byron Bay coastline.

The Roof Terrace can accommodate wedding receptions, ceremonies, group activites such as Yoga as well as passive recreational activities and comptemplation.



KEY PLAN



LEGEND

1. Recreational Terrace with terraced turf zones, private seating niches and timber daybeds with amenity planting to screen & frame views.
2. Large Seating Niche with framed view to beach. Approx 12-16 people.
3. Medium Seating Niche with framed view to Byron Township & Lighthouse Glass balustrade to edge. Approx 9 - 12 people.
4. Small Seating Niche with framed view to southern coastline. Glass balustrade to edge. Approx 8 - 10 people.
5. Timber portal frame daybeds with view to medium sized event lawn. Capacity of 4-6 people.
6. Large event lawn for Wedding / Reception - temporary Marque capacity of 100 people.
7. Small event lawn with seating & umbrella. Capacity of 4-9 tables.
8. Medium event lawn for group events such as Yoga.
9. Timber Portal frame with access to Recreational Terrace.
10. Circulation pathway.
11. Pool with built in bench seat & planters with Frangipani plantings.
12. Greenwall to lift shaft & BOH to soften built form.
13. Pool Deck Bar
14. Pool Deck dining facilities
15. Low sedum green roof planting adjacent solar panels.
16. Gravel surface with Solar Panels.
17. BOH Facilities
18. Change Rooms
19. Lifts
20. Communal Toilets

LANDSCAPE PLAN - ROOF TERRACE & POOL DECK

SCALE - 1:200 (A3)

PLANTING PALETTES

The planting strategy accentuates Northern NSW's sub-tropical climate, as well as the coastal location of Byron, delivering a green and verdant revitalisation.

All species are selected for their ability to enhance the overall vitality of the redevelopment, sub-tropical character, drought tolerance and general low-maintenance qualities., as well as remain tolerant and thrive within the prevailing sea breeze environment.

Plant selection will not be solely based on ornamental qualities but will also generate a sense of identity and comfort, taking cues from the surrounding coastal environment and more broadly, South East Queensland.

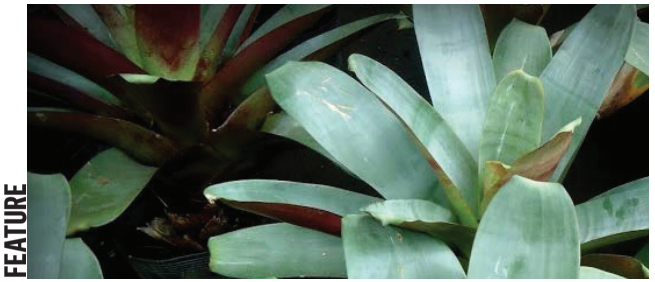
Planting will provide elements of screening, scale, shelter and colour that support function and the architectural character.

TREES	
Botanic name	Common name
Cupaniopsis anacardioides	Tuckeroo
Elaeocarpus eumundii	Eumundii Quandong
Ficus lyrata	Fiddle-leaf fig
Cyathea Cooperii	Tree Ferns
Pandanus pedunculatus	Coastal Screw Pine
Plumeria rubra (& obtusa)	Frangipani
ACCENT PLANTS	
Botanic name	Common name
Alcantarea imperialis purpurea	Bromeliad
Alpinea zerumbet	Shell Ginger
Alocasia bribanensis	Native Lily
Aspidistra elatia	Cast iron plant
Calathea ornata	Pin stripe Calathea
Heliconia sp.	
Pothos sp.	
Philodendron 'Rojo Congo'	Rojo Congo
Trachelospermum jasminoides	Star Jasmine

GROUNDCOVERS

Liriope muscari

FEATURE



alcantarea imperialis

SHRUBS

Calathea lutea

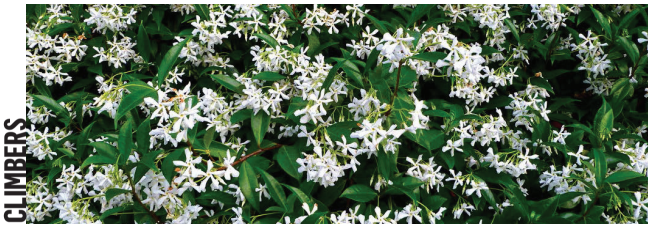
TREES

Cupaniopsis anacardioides

Carpobrotus glaucescens

zoysia tenuifolia

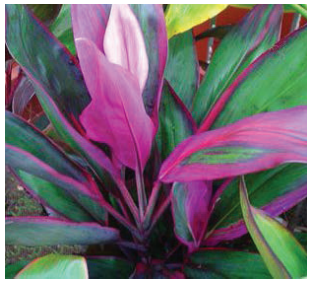
CLIMBERS



trachelospermum jasminoides

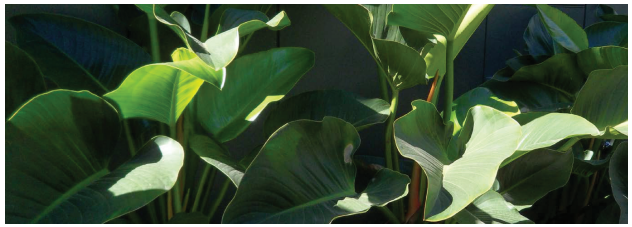
Pandorea jasminoides

Ficus lyrata



Cordyline sp.

Doryanthes excelsa



Philodendron congo

Hymenocallis littoralis

Monstera deliciosa

Calethea zebrina

Cyathea Cooperii

Pandanus pendunculatus

SCREENING

Rhapis excelsa (in sheltered locations)

Acmena hemilamprum

2019NTH015

DA 10.2018.650.1 Mixed use development, Jonson Street, Byron Bay

ATTACHMENTS TO COUNCIL REPORT

5. TRAFFIC IMPACT ASSESSMENT

ESSENCE OF BYRON
TRAFFIC IMPACT ASSESSMENT

FOR

MERCATO ON BYRON
PTY LTD

Gold Coast
Suite 26, 58 Riverwalk Avenue
Robina QLD 4226
P: (07) 5562 5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street
Spring Hill QLD 4000
P: (07) 3831 4442
E: admin@bitziosconsulting.com.au

Sydney
Studio 203, 3 Gladstone Street
Newtown NSW 2042
P: (02) 9557 6202

Project No: P3829 Version No: 003 Issue date: 18 June 2020

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Report File Name	Prepared by	Reviewed by	Issued by	Date	Issued to
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P3829.002R Essence of Byron TIA	A. Payne	A. Eke	L. Johnston	29/11/18	James Vallis at Azzura Investments *james@aigc.com.au*
P3829.003R Essence of Byron TIA	A. Payne	L. Johnston / L. Darragh	L. Johnston	18/06/20	James Vallis at Azzura Investments *james@aigc.com.au*

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ADDENDUM 1: SUMMARY FOR RESPONSE TO COUNCIL'S INFORMATION REQUEST – DECEMBER 2018

Bitzios Consulting was engaged by Mercato on Byron Pty Ltd to prepare a traffic impact assessment for the proposed Essence of Byron hotel (DA No. 10.2018.650.1) located at 106 Jonson Street, Byron Bay. The traffic impact assessment was lodged as a part of the development application. Subsequently, Council responded with a request for further information (dated 20th December 2018).

This report provides a revised traffic assessment in response to Council's information request. This section specifically responds to the traffic related items of the information request.

Access and Parking – Item 3a

> The application should demonstrate that access is consistent with the approved (and currently proposed) access arrangements for the adjoining shopping centre development. The traffic assessment should be reviewed in response to discussions at the meeting of 19 December regarding proposals for the temporary and permanent access assessment and treatments.

Response:

The following traffic impact assessment has been assessed considering the existing access arrangement, noting that legal proceedings are currently underway regarding shared access arrangements.

Access and Parking – Item 3b

> In that regard, it was noted that Council engineers do not support the background traffic growth rate of 0.5% as adopted for the current study, suggesting a rate of 3% presents a more realistic figure. Similarly, in the absence of more detailed evidence, Council's engineers do not support the peak generation rate for the hotel of 0.23 trips per bedroom and request further demonstrated justification for this rate. They also request further justification for the 25% reduction applied to trips generated by the restaurant and function rooms, and an indication of employee numbers.

Response:

Council further queried growth rates, traffic generation rates and cross-utilisation in the further RFI provided May 2019. Refer to Addendum 2 for a response summary and refer to Section 3 of the report for further detail of the updated traffic assessment.

Between all land uses on-site, the proposed development is expected to employ up to 120 staff across various shifts. At this stage it is unclear the maximum number of staff that will be on-site at one time.

Access and Parking – Item 3c

> Further detail is required addressing potential movement conflicts between the two developments, particularly relating to peak traffic volumes / movements; loading and waste collection requirements and the vehicular access to the hotel reception space.

Response:

The likelihood of vehicle conflict between vehicles servicing the two sites and vehicles accessing the proposed porte-cochere is considered to be negligible. Refer to Section 4.5.3 for further detail.

Access and Parking – Item 3d

Plans should also demonstrate that the access to the loading and waste collection areas within the proposed building will function effectively for the type of vehicle expected to uses these spaces, particularly given that the turning paths provided show that MRVs for both developments will need to use the proposed porte-cochere to exit the site.

Response:

A swept path assessment was conducted demonstrating service vehicle manoeuvrability for service vehicles for each site. Refer to Section 4.5.2 for further details.

Access and Parking – Item 3e

The plans show a hotel drop off space and parallel parking spaces in Jonson Street. There is currently no parking along this frontage and it does not appear that there is sufficient space for parking as proposed (see photo below). If this drop-off / parking is to remain part of the proposed development, please provide further detail to demonstrate that it is achievable.

Response:

Development plans have been updated with the on-street parking and drop-off zone no longer proposed.

Access and Parking – Item 3f

Council is supportive of the inclusion of car share spaces. Please provide documentation, an expression of interest or the like, to demonstrate that a car share operator will be interested in supplying vehicles to this development.

Response:

A Memorandum of Understanding (MOU) shall be provided by PopCar with the development application.

Access and Parking – Item 3f

Further consideration is also requested regarding the proposal for bicycle parking within the Jonson Street footpath:

- Need to demonstrate that the parking can be provided in a way that does not restrict pedestrian movement along the footpath; noting, in particular the location of the existing street trees and the presence of two public telephone stations in this location (see photo below).
- It is noted that the number of bicycle parking spots is slightly less than required by the DCP provision. Given the significant shortfall in car parking spaces, it is recommended that, as a minimum, the number of bike spots should comply with the DCP numbers.
- Staff bike parking (Class B) should be provided near the staff amenities within the basement, and this would assist in meeting the numerical requirements.
- We would also encourage you to consider the provision of an “E bikes”/ bike share arrangement, which would also assist in considering the car parking variation requested.

Response:

A minimum 3m of sealed footpath width is maintained fronting the site. This is marginally wider than the existing sealed footpath and is consistent with the typical maximum width for a Local Access Shared Path as per the *Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling*. Existing street trees are located on landscaping areas clear of the sealed footpath width and therefore, similar to existing operations, will not restrict pedestrian movements.

A total of 14 Class B bicycle parking spaces are proposed in the basement. 10 of these spaces are proposed to be allocated as staff bicycle parking with the remaining four (4) spaces available for shared bicycles / e-bikes. It is understood that Sunshine Cycles, a Byron Bay based e-bike rental business, is seeking new locations to base their shared e-bikes. As such, it is proposed that a Sunshine Cycles 'Sunpod' be located at the southernmost proposed visitor bicycle parking location, noted on the updated plans as the proposed location for shared bikes / e-bikes. Refer to Section 4.2 for further details.

Other Issues/Requirements – Item 4 (Car Parking)

Car Parking: Chapter B4 Traffic Planning, Vehicle Parking, Circulation and Access DCP 2014
Table 4.1 refers to 144 rooms; application proposes 146.
Further justification required for variation in numbers:

- potential implications of restaurant being open for wider public.
- greater clarification required for 'overlap' with adjoining basement parking – particularly given that is paid parking.
- analysis of existing tourist facilities (e.g. Elements, Byron at Byron etc.) in terms of a parking study to demonstrate demand is lower than DCP rates.

Response:

Table 4.1 of the traffic impact assessment has been updated to reflect the proposed development yield, please refer to Section 4.1.

It is not considered appropriate or feasible to conduct parking studies of existing tourist facilities within Byron Bay. As these tourist facilities are privately owned with car parking provided on private land, permission from owners/operators would be required to undertake parking surveys. It is highly unlikely that such permission would be granted especially considering the surveys would be conducted for the benefit for a potential future competitor. Furthermore, the existing tourist facilities, Elements of Byron and Byron at Byron are resort-style, 5-star luxury tourist facilities and parking demand is not expected to be indicative of the proposed hotel. Furthermore, these resorts are located outside the centre of Byron Bay. As such, while the Byron Bay Solar Train does provide access to the Elements of Byron, guests at these resorts would have a higher dependence on private vehicles than guests of a hotel located on Jonson Street.

A first principle's parking assessment has been conducted. This assessment determines that, while there is a deficiency in parking provision on-site as per Council's parking rates, sufficient parking is provided to meet the expected demands of the site's staff, restaurant / function room patrons and hotel guests. Refer to Section 4.1 for the detailed assessment.

ADDENDUM 2: SUMMARY FOR RESPONSE TO COUNCIL'S INFORMATION REQUEST – MAY 2019

Bitzios Consulting was engaged by Mercato on Byron Pty Ltd to prepare a traffic impact assessment (TIA) for the proposed Essence of Byron hotel (DA No. 10.2018.650.1) located at 106 Jonson Street, Byron Bay. The traffic impact assessment was lodged as a part of the development application. Subsequently, Council responded with a request for further information (dated 27th May 2019).

This report provides a revised traffic assessment in response to Council's information request. This section specifically responds to the traffic related items of the second information request provided.

Traffic – Item 1

Assessment of the cumulative impacts of the proposed development and the approved development utilising the same access point.

Response:

Traffic surveys have been undertaken by TTM at the shared access location on Saturday 23 November and Thursday 28 November 2019 while approximately 97% of the leasable floor area of the adjacent shopping centre was operational. Surveys volumes to / from the shared access location were therefore increased to represent 100% occupation. To determine cumulative impacts, design traffic therefore includes surveyed volumes, additional shopping centre volumes and hotel development traffic. Refer to Section 3 for further detail.

Traffic – Item 2

The current peak times adopted in the TIA are not supported as it is unclear how they were derived, other that being nominated in the report. The peak hours adopted for the previous DA10.2013.587.1 do not coincide with the current TIA prepared by Bitzios.

A 7-day traffic count in Jonson St (north of Carlyle St / Jonson St intersection and north of Kingsley St / Jonson St intersection) is to be undertaken to identify the AM, PM and Weekend peak hour times and volumes.

Response:

7-day automatic traffic surveys have been undertaken by TDC between the 20th and 26th of June. These surveys indicated that, while the peak hour is typically within the survey period of the intersection counts, the peak hour varies depending on survey location and travel direction. As such, the assessment has been updated to not consider a network peak and instead conservatively adopt peak volumes from each intersection survey individually. Refer to Section 3 for further detail.

Traffic – Item 3

The nominated traffic growth rate of 0.5% is not supported. According to Council's data (BSC 76/18 and BSC 77/19) between year 2011 to 2017 an average growth rate of 2.4% has been compounding to all traffic (in and out of the CBD) coming from the north in Lawson St and from the south in Bangalow Road.

The background traffic figures in the report should be amended by adopting a compound growth rate of 2.4% over a design horizon of 10 years. A table is to be provided to show the volumes of background traffic with the compounding growth at the access point and the following intersections:

- *Carlyle St / Jonson St;*
- *Kingsley St / Jonson St; and*
- *Marvel St / Jonson St.*

Response:

Traffic surveys were undertaken at the Jonson Street / Carlyle Street / Development access intersection in November 2013 & 2019. Survey data indicates a reduction in traffic in the PM peak and no growth in the weekend peak. Considering the above a compounding growth rate of 0.5% p.a. is considered appropriate.

However, based on Council's data, a sensitivity test will also be conducted applying a 2.4% compounding growth rate to background traffic volumes. Refer to Section 3 for the detailed traffic assessment using both growth rates. Background and design volumes adopted are provided in Appendix C.

Traffic – Item 4

The peak traffic for hotels in accordance with DTMR surveyed data are 0.24 trips per peak hour per bed on weekdays and 0.25 trips per peak hour per bed on weekends. The assessment should be amended by adopting these rates for development traffic.

Response:

The weekend peak hour hotel trip generation rate has been updated to 0.25 vehicle trips per bedroom as per the DTMR surveyed data. The DTMR surveyed data demonstrates that the weekday traffic generation rate is, on average, 0.222 vehicle trips per bedroom (rounded up to 0.23 trips/bedroom). As such, the AM and PM rates were not amended. Refer to Section 3.4 for further detail.

Traffic – Item 5

GFA of the outdoor dining, of approximately 250m^2 adjacent to the restaurant, the restaurant kitchen of 137m^2, the rooftop bar of 321m^2 and wedding area of 263m^2 have been excluded from the GFA calculated for the restaurant / function room. Amend the traffic generation to include the missing GFA.

Response:

The traffic and parking assessment has been amended to include the additional GFA of the ground floor outdoor dining area and kitchen area. The rooftop areas are proposed to be used by hotel guests only and not be accessible to the public. As such, these areas will not generate any additional vehicle trips or parking demand in addition to the rates adopted for the hotel.

Traffic – Item 6

Provide justification by supplying calculations and supporting documentation for the cross-utilisation values adopted in the development traffic for the restaurant / function room.

Response:

It is standard practice to apply a reduction to trip generation and parking demand for complimentary land uses in a multi-use development. While discounts are not specified in the Byron Shire Council DCP, reductions to trip generation / parking accounting for cross-utilisation of this type is recommended within other LGAs. Examples include:

- the Coffs Harbour Development Control Plan (2015) specifies a parking rate for restaurant and/or function rooms included in hotel developments as 50% of the parking rate required for a new stand-alone restaurant;
- the Shoalhaven City Council Development Control Plan (2014) recommends a 25% reduction on parking required for a restaurant / conference facility used in conjunction with tourist accommodation in an urban area;
- the *Parking Spaces for Urban Places: Car Parking Study* (2013) prepared by Aurecon, recommends the provision of 50% of calculated parking demand for any ancillary land use to a tourist accommodation land use.

Considering the above, and previous experience with mixed use developments, a cross-utilisation rate of 25% is deemed appropriate for the restaurant / function room portions of the proposed development.

Traffic – Item 7

Traffic volume / distribution and SIDRA values do not match against the assumed / calculated traffic volumes / distributions presented in the TIA

Response:

Traffic volumes in SIDRA have been updated in accordance with the latest forecast volumes determined in the traffic assessment. It should also be noted that, by default, SIDRA applies a minor increase to volumes inputted to ensure a conservative assessment. This is a standard practice for SIDRA Intersection modelling but will result in SIDRA outputs, as provided in Appendix D, demonstrating marginally larger volumes than those entered into the software.

Parking & Manoeuvring – Item 8

The applicant is requested to provide calculated justification to demonstrate that the proposed 103 parking spaces are able to cater for 146 room hotel and its employees, restaurant & function rooms. This should include (but not necessarily be limited to):

- *Cross utilisation – what is the adopted value, justification of the adopted value, calculation and number of discounted parking;*
- *DCP calculation – to include the forecast maximum number of employees and maintenance personnel plus include the missing GFA for the outdoor dining of approximately 250m^2 adjacent to the restaurant, the restaurant kitchen of 137m^2, the GFA for the rooftop bar of 321m^2 and wedding area of 263m^2*
- *Exclude the utilisation of the parking of the neighbouring development. The parking of the development must be able to cater for its proposed uses; and*
- *Detailed parking calculation and update Table 4.1 accordingly.*

Justification must be supported with clear evidence, calculations and documentation to facilitate the assessment of the parking adequacy and deficiency.

Response:

A first principle's parking assessment has been conducted. This assessment determines that, while there is a deficiency in parking provision on-site as per Council's parking rates, sufficient parking is provided to meet the expected demands of the site's staff, restaurant / function room patrons and hotel guests. Refer to Section 4.1 for the detailed assessment.

Parking & Manoeuvring – Item 9

Provision must be made to provide sufficient loading bay areas in accordance with Council's DCP. The GFA of 7,331m^2 will require 2 x SRV + 2 x MRV + 1 x HRV & 1 x AV loading bays.

Response:

The provision of six (6) loading areas for a development of this nature would be considered an oversupply of servicing areas and the breakdown of service vehicle provisions specified in the DCP is considered excessive. It is not expected that a service vehicle larger than a heavy rigid vehicle (HRV) would be required to service the site. This is consistent with servicing requirements for hotels in other coastal local government areas (i.e. Tweed Shire, City of Gold Coast).

The likelihood of more than two (2) service vehicles being on-site simultaneously is considered negligible, and as such the provision of additional service bays is considered unnecessary. It is also noted that the adjacent site consists of a larger total GFA and over 30 tenancies, including a supermarket, was approved and constructed with less than six (6) service bays provided. As such the provision of two (2) service bays, with at least one loading area suitable for HRV use, is considered suitable for the proposed hotel and associated restaurant uses. Refer to Section 4.51 for further detail.

Parking & Manoeuvring – Item 10

Amend the curved circulation roadway in accordance with Table 2.2 and Figure 2.9 of AS2890 to include the following:

- *Minimum lane width of 3.9m;*
- *Minimum inside radius of 4.0m*
- *Minimum outside radius of 7.6m;*
- *Minimum Co of 500mm;*
- *Minimum Ci of 300mm; and*
- *Maximum superelevation of 5%.*

Response:

A swept path assessment provided in Appendix F demonstrates there is sufficient space for a B99 vehicle to enter via the curved roadway at the basement entrance.

Parking & Manoeuvring – Item 11

Provide all manoeuvring movements for the maximum sized vehicles at access points (entry & exit), loading bays and turnaround area within the development.

Response:

A swept path has been conducted for the site's access and manoeuvring areas for the site's design service vehicle (HRV), neighbouring site's design service vehicle (AV). Refer to Section 4.5.2 for further detail, with swept paths provided in Appendix F.

Parking & Manoeuvring – Item 12

Provide efficiency and safety assessment addressing the mix of passenger and commercial traffic utilising the common internal access area and the drop-off & set down area of the hotel. Commercial traffic should be isolated / separated from passenger traffic.

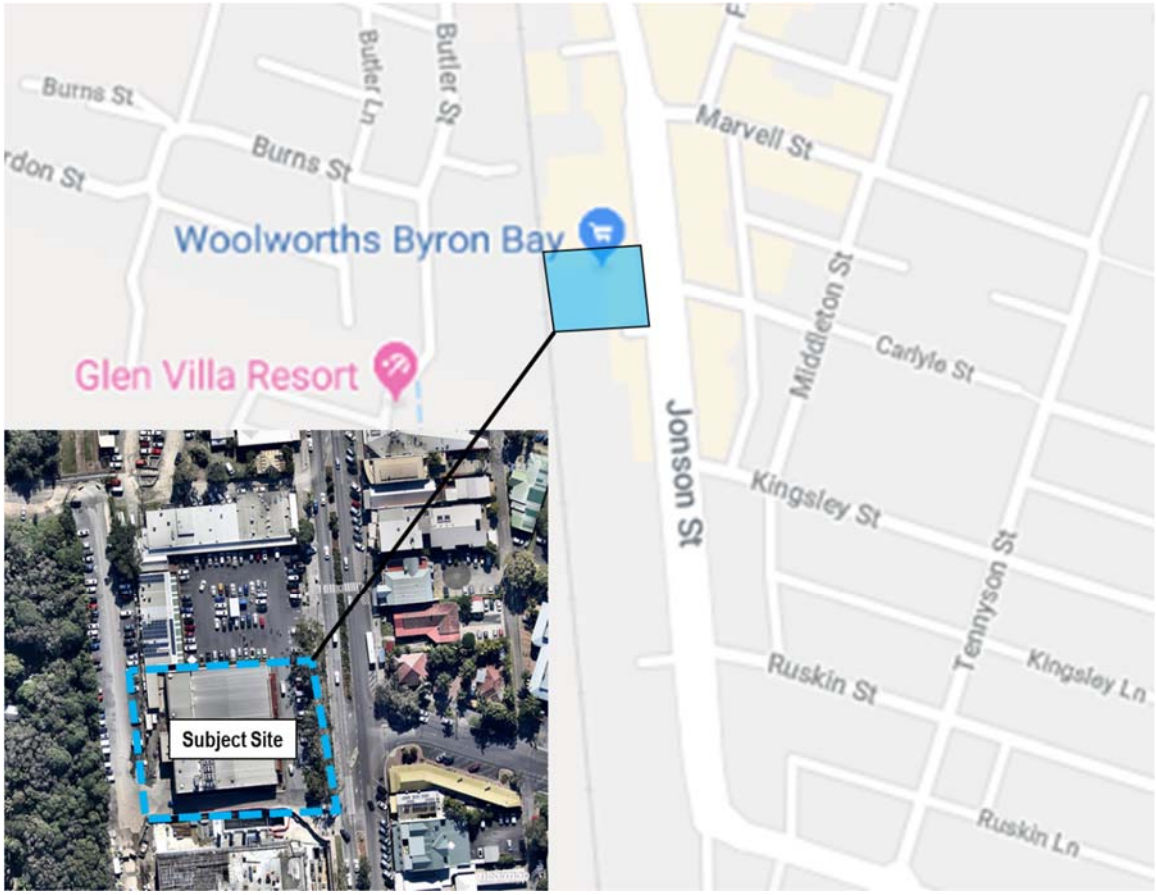
Response:

An assessment of potential vehicle conflicts has been conducted, please refer to Section 4.5.3 for further detail. As conflict will only occur between service vehicles, expected to occur relatively irregularly and outside of peak hours, and private vehicles using the porte-cochere, hotel guests at check-in only, the likelihood of vehicle conflict is considered minimal.

1. INTRODUCTION

1.1 BACKGROUND

Bitzios Consulting has been engaged by Mercato On Byron Pty Ltd to undertake a traffic impact assessment for the proposed Essence of Byron hotel located at 106 Jonson Street, Byron Bay. The location of this development is shown in Figure 1.1.



Source: Google Maps & Nearmap

Figure 1.1: Site Location

1.2 SCOPE

The scope of this assessment is as follows:

- estimation of the traffic generation and distribution of trips to/from the proposed development;
- an assessment of traffic impacts on the surrounding road network including SIDRA intersection analysis for background and design scenarios at the year of opening and 10-year design horizon also considering the impacts of the future Byron Bay Bypass;
- an assessment of the site's car and bicycle parking provisions against Council's requirements;
- an assessment of the layout of the site's car parking and internal roadways in accordance with the requirement of AS2890;
- a swept path analysis using AutoTURN software to ensure satisfactory site access is provided to service and refuse collection vehicles; and
- an assessment of public transport, pedestrian and cyclist accessibility to / from the site.

2. PROPOSED DEVELOPMENT

2.1 DEVELOPMENT YIELDS

The proposal is for a three-storey hotel development consisting of 146 hotels rooms. In addition to the hotel rooms the development will include a restaurant / bar, function / meeting rooms and a small retail area. A pool area, gym facilities and courtyard area are also present on-site with these facilities considered to be ancillary to the hotel. Detailed plans of the proposed development are provided at Appendix A.

2.2 MERCATO ON BYRON SHOPPING CENTRE

The Mercato on Byron is a 2-storey shopping centre recently opened on the adjoining site. The Essence of Byron Hotel will share an access and service vehicle manoeuvring area with the neighbouring shopping centre. The shopping centre includes a 328-space dual-level basement carpark. The Essence of Byron development is proposed to utilise the basement ramp to this car park for vehicle egress and emergency access.

It is noted that legal proceedings are currently underway regarding the access arrangement and the form of the Jonson Street / Carlyle Street intersection. For the purposes of this assessment, the current back-to back right-turn access arrangement has been assessed.

3. TRAFFIC ASSESSMENT

3.1 TRAFFIC SURVEYS

3.1.1 Intersection Counts

Intersection surveys were undertaken by TTM on Thursday 28th November 2019 for the PM Peak (02:30 – 06:30) and Saturday 23rd November 2019 for the midday peak (10:00am – 03:00pm). Intersections surveyed are as follows:

- Jonson Street / Carlyle Street priority-controlled intersection; and
- Jonson Street / Mercato on Byron Development Access priority-controlled intersection.

Intersection surveys were also undertaken by Traffic Data & Control (TDC) on Thursday 20th and Friday 21st June 2019 for the AM (07:00 – 10:00) and PM (03:00 – 06:00) peak periods, and on Saturday 22nd June 2019 for the midday (10:00am – 02:00pm) peak period. The intersections surveyed are as follows:

- Jonson Street / Carlyle Street priority-controlled intersection;
- Jonson Street / Mercato on Byron Development Access priority-controlled intersection;
- Jonson Street / Kingsley Street priority-controlled intersection; and
- Jonson Street / Marvell Street priority-controlled intersection.

For the purposes of this assessment the most recent peak survey data available at each intersection will be adopted. As such, TTM survey data (November 2019) will be adopted for the PM and weekend peak of the two (2) intersections surveyed. TDC survey data (June 2019) will therefore be adopted for the AM peak at these intersections and the AM, PM and weekend peak at the two (2) intersections not surveyed by TTM.

Detailed traffic survey results are provided in Appendix B with peak hour survey volumes shown in Appendix C (Sheet 1).

3.1.2 Tube Counts

7-day automatic tube counts were also undertaken by TDC at two (2) locations on Jonson Street from Thursday the 20th to Wednesday the 26th June 2019 with survey results provided in Appendix B. The automatic counters were located immediately north of Carlyle Street and midblock between Kingsley Street and the development access as shown in Figure 3.1.

Source: Nearmap

Figure 3.1: Tube Count Survey Locations

Tube counts were also used to determine the peak hour of traffic flow on Jonson Street. Surveyed peak hours for Friday and Saturday are outlined in Table 3.1.

Table 3.1: Surveyed Peak Hour

Day	Peak	Site 1		Site 2	
		Northbound	Southbound	Northbound	Southbound
Friday	AM Peak	07:30 – 08:30	09:00 – 10:00	07:30 – 08:30	09:00 – 10:00
	PM Peak	14:30 – 15:30	15:00 – 16:00	12:30 – 13:30	14:45: - 15:45
Saturday	Daily Peak	12:00 – 13:00	17:00 – 18:00	12:00 – 13:00	09:45 – 10:45

As shown, the peak hour on Jonson Street for each day varies depending on survey location and the direction of travel. However, it is noted that the peak hour shown is generally within the survey periods of the intersection counts. As such, the intersection counts are considered to provide an accurate representation of peak hour conditions. However, the surveyed peak hour varies between tube count location and traffic flow direction. Furthermore, the peak hours are not consistent across all intersection surveys. It is therefore not considered appropriate to adopt a network peak for this assessment. The following assessment will therefore conservatively be conducted adopting peak volumes surveyed at each intersection individually.

3.2 FORECAST BACKGROUND TRAFFIC

3.2.1 Surveyed Growth

Intersection surveys were also undertaken by TTM on Thursday 7th November 2013 and Saturday 9th November 2013 as a part of the original development application for the Mercato on Byron Shopping Centre. As in the 2019 surveys undertaken, intersections surveyed are as follows:

- Jonson Street / Carlyle Street priority-controlled intersection; and
- Jonson Street / Mercato on Byron Development Access priority-controlled intersection.

Noting that TTM surveyed the traffic volumes at the staggered T-intersections as a 4-way intersection in both cases, total surveyed turn volumes were added to compare peak hour traffic volumes in the PM and weekend peaks in 2013 and 2019. Table 3.2, outlines the surveyed peak hour volumes and corresponding growth rate from 2013 to 2019.

Table 3.2: Surveyed Growth

Intersection	Peak	2013 Volumes (veh/hr)	2019 Volumes (veh/hr)	% Growth from 2013
Jonson Street / Carlyle Street / Development Access	PM	1,320	1,171	-1.98% p.a.
	Weekend	1,180	1,186	0.01% p.a.

As shown, TTM survey data indicates a reduction in traffic volumes in the PM weekday peak hour and a negligible increase in weekend peak hour traffic volumes. It is further noted that both 2013 and 2019 traffic surveys were undertaken in November and as such seasonality is not considered a factor in determining the surveyed growth rate.

3.2.2 Future Forecast Growth

To forecast background traffic volumes at the expected year of opening (2021) and 10-year design horizon (2031) a compounding growth rate of 0.5% has been applied to 2019 surveyed traffic volumes. This rate is deemed to be appropriate considering the following:

- Intersection survey data from 2013 and 2019 indicated a reduction in traffic volumes and a negligible growth rate (<0.01% p.a.) for the PM and weekend peak hour respectively;
- traffic growth on Jonson Street is restricted by network capacity issues as surrounding roads and intersections operate at or over capacity during peak periods; and
- as per data from the Australian Bureau of Statistics (ABS), the total number of dwellings in Byron Bay marginally reduced between 2011 and 2016, indicating minimal growth in the area and further supporting the reduction in vehicle trips observed between traffic surveys.

Byron Shire Council has however informed the project team that data collected from two sites in Byron Bay (BSC 76/18 and BSC 77/19) indicates a compounding growth rate of 2.4% in and out of the Byron CBD between 2011 and 2017. As such, as sensitivity test will be conducted adopting a background compounding growth rate of 2.4%. Growth rates will be applied to all movements with the exception of turning movements in and out of the development access.

3.2.3 Mercato on Byron Shopping Centre

Noting that the proposed development shares an access with eh adjacent Mercato on Byron shopping centre, traffic generation of both developments shall be considered to determine their cumulative impact on the surrounding road network. Data provided by the shopping centre indicates that shops accounting for 96.6% of the shopping centre's gross leasable floor area (GLFA) were trading at the time of the surveys. As such, this percentage of development traffic is accounted for in the most recent traffic survey data. So that the assessment considers the maximum impact of the shopping centre, surveyed development traffic volumes have been increased to represent 100% occupation of the shopping centre. The increase in shopping centre trips on the surrounding network is therefore shown in Appendix C (Sheet 2).

3.2.4 Background Traffic Volumes

Background traffic volumes are provided for year 2021 (expected year of opening) and 2031 (10-year design horizon). 2021 and 2031 forecast traffic volumes are provided adopting compounding growth rates of 0.5% and 2.4% per annum with the additional shopping centre trips added to all scenarios. Network diagrams of these forecast background traffic volumes are provided in Appendix C (Sheet 3 to Sheet 6).

3.3 DEVELOPMENT TRAFFIC

Traffic generation rates for a hotel land use are not specified within the RMS Guide to Traffic Generating Development. However, several hotels were surveyed by the Department of Transport and Main Roads (DTMR) (QLD) to determine traffic generated by these sites in Brisbane and the Gold Coast. Averaged across all surveyed sites a weekday rate of 0.23 trips per bedroom and a weekend rate of 0.25 trips per bedroom is determined. This is approximately consistent with the maximum peak traffic generation rate (0.22 per bedroom) for high-density residential in regional NSW areas as per the RMS Guide to Traffic Generating Development Technical Direction (2013). Furthermore, it is expected that the occupation of a high-density residential development would typically be higher than a hotel as hotel check-in / check-out times do not typically align with network peak hours.

Traffic generated by the ground floor restaurant was determined as per the RMS Guide to Traffic Generating Developments (2002) with function / meeting rooms assumed to generate the same trips. All land uses were conservatively assumed to generate peak traffic volumes in the AM, PM and weekend peak periods with the exception of the restaurant and function rooms which are not expected to be open to the public in the AM peak. Traffic generation rates and corresponding trip generation is shown in Table 3.3. All other uses not listed (e.g. rooftop bar, infinity pool, rooftop garden etc.) are expected to be restricted for use by hotel guests only and are therefore considered ancillary and not generate any additional trips.

It is expected that hotel guests will make up a significant portion of the patronage of the restaurant and function / meeting rooms. As such, to account for this cross-utilisation, a 25% reduction was applied to trips generated by the restaurant and function / meeting rooms. While, cross-utilisation factors are not considered in the Byron Shire DCP, these reductions are commonplace and discounts for complimentary land uses of these types are recommended in multiple other LGAs. Examples include:

- the Coffs Harbour Development Control Plan (2015) specifies a parking rate for restaurant and/or function rooms included in hotel developments as 50% of the parking rate required for a new stand-alone restaurant;
- the Shoalhaven City Council Development Control Plan (2014) recommends a 25% reduction on parking required for a restaurant / conference facility used in conjunction with tourist accommodation in an urban area;
- the *Parking Spaces for Urban Places: Car Parking Study* (2013) prepared by Aurecon, recommends the provision of 50% of calculated parking demand for any ancillary land use to a tourist accommodation land use.

The limitation to the proposed parking provision, as will be discussed further, would also likely result in a reduction in vehicle trips to and from the proposed restaurant / function rooms.

Table 3.3: Development Traffic Generation

Land Use	Quantity	Traffic Generation Rate			Development Trips		
		AM	PM	SAT	AM	PM	SAT
Hotel	146 bedrooms	0.23 trips per bedroom	0.23 trips per bedroom	0.25 trips per bedroom	34	34	37
Restaurant / Function Room	875m^2 GFA	-	5 trips per 100m^2 GFA	5 trips per 100m^2 GFA	-	33*	33*
Retail	45m^2 GFA	2.7 trips per 100m^2 GFA	2.7 trips per 100m^2 GFA	3.9 trips per 100m^2 GFA	2	2	2
				Total	36	69	72

**Development trips include 25% cross-utilisation reduction.*

As shown, the proposed development is estimated to generate in the order of 36 vehicle trips in the AM peak hour, 69 vehicle trips in the PM peak hour and 72 vehicle trips in the weekend peak hour.

Typical IN / OUT directionality splits were adopted for the proposed development and applied to the estimated traffic generation as detailed in Table 3.4.

Table 3.4: Development Traffic Directionality

Land Use	AM Peak		PM Peak		SAT Peak		AM Peak (veh/h)		PM Peak (veh/h)		SAT Peak (veh/h)	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Hotel	20%	80%	70%	30%	50%	50%	7	27	24	10	17	17
Restaurant / Function	-	-	50%	50%	50%	50%	-	-	17	17	17	17
Retail	50%	50%	50%	50%	50%	50%	1	1	1	1	1	1

3.4 DEVELOPMENT TRAFFIC DISTRIBUTION

The development traffic was assigned to the external road network based on a "North:South" split determined from 2019 TDC traffic surveys. The development traffic distribution IN and OUT of the development are provided in Appendix C (Sheet 7 & Sheet 8).

The estimated development traffic was assigned to the surrounding intersections using the development traffic distributions. As hotel guests, after check-in, will be required to turn-left out of the main access and drive to the basement entry. As such, the quantity of hotel trips into the site will also be added to the left-turn out of the main access. The subsequent development traffic volumes have been provided in Appendix C (Sheet 9).

3.5 DESIGN TRAFFIC

The design traffic volumes were calculated by combining the forecast background traffic volumes and the assigned development traffic for the expected year of opening (2021) and 10-year design horizon (2031). The design traffic volumes have been provided at Appendix C (Sheet 10 & Sheet 11). Sensitivity test design traffic volumes are also provided in Appendix C (Sheet 12 & Sheet 13).

3.6 SIDRA ANALYSIS

3.6.1 Methodology

SIDRA Intersection 8 was used to model the impact of background and design traffic on the surrounding intersections for the expected year of opening (2021) and 10-year design horizon (2031). The intersections analysed are as follows:

- Jonson Street / Carlyle Street intersection;
- Jonson Street / Primary Development Access intersection;
- Jonson Street / Kingsley Street intersection; and
- Jonson Street / Marvell Street Intersection.

Detailed SIDRA results for each intersection are provided in Appendix D.

3.6.2 Jonson Street / Carlyle Street / Primary Development Access Intersection

The Jonson Street / Carlyle Street / Development Access intersection network layout at the time of the traffic surveys is shown in Figure 3.2. Due to the proximity of the development access to the Jonson Street / Carlyle Street intersection, the Jonson Street / Carlyle Street intersection and development access was assessed in SIDRA as a network.

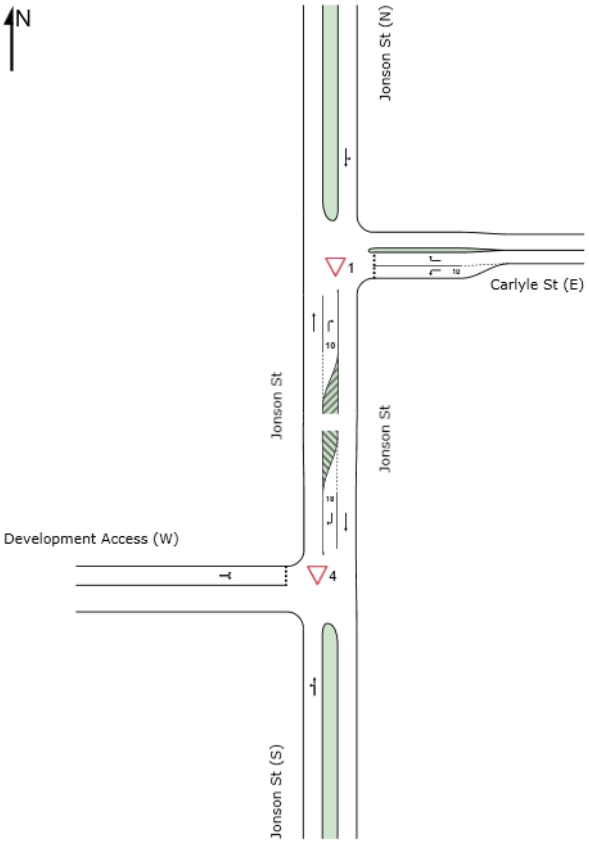


Figure 3.2: Jonson Street / Carlyle Street / Development Access SIDRA Network Layout

The SIDRA intersection results for the Jonson Street / Carlyle Street intersection for the forecast background traffic volumes are summarised in Table 3.5 for years 2021 and 2031.

Table 3.5: Jonson Street / Carlyle Street Background SIDRA Results Summary

Intersection	Movement	2021 Background				2031 Background			
		LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period									
Jonson Street (S)	Through	A	0	0	0.31	A	0	0	0.32
	Right Turn	A	5	0	0.02	A	5	0	0.03
Carlyle Street (E)	Left Turn	A	7	0	0.02	A	7	0	0.03
	Right Turn	C	22	1	0.06	C	24	1	0.08
Jonson Street (N)	Left Turn	A	6	0	0.23	A	6	0	0.25
	Through	A	0	0	0.23	A	0	0	0.25
Overall	-	N/A	1	1	0.31	N/A	1	1	0.32
PM Peak Period									
Jonson Street (S)	Through	A	0	0	0.24	A	0	0	0.25
	Right Turn	A	5	1	0.05	A	5	1	0.05
Carlyle Street (E)	Left Turn	A	8	0	0.05	A	8	1	0.05
	Right Turn	C	19	1	0.09	C	20	1	0.11
Jonson Street (N)	Left Turn	A	6	0	0.26	A	6	0	0.27
	Through	A	0	0	0.26	A	0	0	0.27
Overall	-	N/A	1	1	0.26	N/A	1	1	0.27
Weekend Peak Period									
Jonson Street (S)	Through	A	0	0	0.24	A	0	0	0.25
	Right Turn	A	5	1	0.05	A	5	1	0.06
Carlyle Street (E)	Left Turn	A	8	1	0.07	A	8	1	0.07
	Right Turn	C	19	1	0.09	C	21	1	0.10
Jonson Street (N)	Left Turn	A	6	0	0.26	A	6	0	0.27
	Through	A	0	0	0.26	A	0	0	0.27
Overall	-	N/A	1	1	0.26	N/A	1	1	0.27

As shown, the Jonson Street / Carlyle Street intersection is expected to operate within acceptable performance limits for background traffic volumes for the expected year of opening (2021) and 10-year design horizon (2031).

The SIDRA intersection results for the Jonson Street / Development Access intersection for the forecast background traffic volumes are summarised in Table 3.6 for years 2021 and 2031.

Table 3.6: Jonson Street / Development Access Background SIDRA Results Summary

Intersection	Movement	2021 Background				2031 Background			
		LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period									
Jonson Street (S)	Left Turn	A	5	0	0.31	A	5	0	0.32
	Through	A	0	0	0.31	A	0	0	0.32
Jonson Street (N)	Through	A	0	0	0.21	A	0	0	0.22
	Right Turn	A	5	0	0.03	A	6	0	0.03
Development Access (W)	Left Turn	A	8	1	0.06	A	8	1	0.06
	Right Turn	C	19	1	0.06	C	20	1	0.06
Overall	-	N/A	1	1	0.31	N/A	1	1	0.32
PM Peak Period									
Jonson Street (S)	Left Turn	A	5	0	0.24	A	5	0	0.25
	Through	A	0	0	0.24	A	0	0	0.25
Jonson Street (N)	Through	A	0	0	0.23	A	0	0	0.24
	Right Turn	A	5	1	0.06	A	5	1	0.07
Development Access (W)	Left Turn	A	6	2	0.14	A	7	2	0.15
	Right Turn	C	17	2	0.14	C	18	2	0.15
Overall	-	N/A	1	2	0.24	N/A	1	2	0.25
Weekend Peak Period									
Jonson Street (S)	Left Turn	A	5	0	0.25	A	5	0	0.26
	Through	A	0	0	0.25	A	0	0	0.26
Jonson Street (N)	Through	A	0	0	0.23	A	0	0	0.25
	Right Turn	A	5	1	0.07	A	5	1	0.07
Development Access (W)	Left Turn	A	7	1	0.13	A	7	1	0.14
	Right Turn	C	17	1	0.13	C	19	1	0.14
Overall	-	N/A	1	1	0.25	N/A	1	1	0.26

As shown, the Jonson Street / Development Access intersection is expected to operate within acceptable performance limits for background traffic volumes for the expected year of opening (2021) and 10-year design horizon (2031).

The SIDRA Network results for the Jonson Street / Carlyle Street intersection for the forecast design traffic volumes are summarised in Table 3.7 for years 2021 and 2031.

Table 3.7: Jonson Street / Carlyle Street Design SIDRA Results Summary

Intersection	Movement	2021 Design				2031 Design			
		LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period									
Jonson Street (S)	Through	A	0	0	0.32	A	0	0	0.34
	Right Turn	A	5	0	0.03	A	5	0	0.03
Carlyle Street (E)	Left Turn	A	7	0	0.03	A	7	0	0.03
	Right Turn	C	23	1	0.07	D	26	1	0.08
Jonson Street (N)	Left Turn	A	6	0	0.24	A	6	0	0.25
	Through	A	0	0	0.24	A	0	0	0.25
Overall	-	N/A	1	1	0.32	N/A	1	1	0.34
PM Peak Period									
Jonson Street (S)	Through	A	0	0	0.26	A	0	0	0.27
	Right Turn	A	5	1	0.05	A	5	1	0.06
Carlyle Street (E)	Left Turn	A	8	1	0.05	A	8	1	0.05
	Right Turn	C	21	1	0.11	C	22	1	0.12
Jonson Street (N)	Left Turn	A	6	0	0.27	A	6	0	0.28
	Through	A	0	0	0.27	A	0	0	0.28
Overall	-	N/A	1	1	0.27	N/A	1	1	0.28
Weekend Peak Period									
Jonson Street (S)	Through	A	0	0	0.27	A	0	0	0.28
	Right Turn	A	5	1	0.06	A	5	1	0.06
Carlyle Street (E)	Left Turn	A	8	1	0.07	A	8	1	0.08
	Right Turn	C	21	1	0.10	C	23	1	0.12
Jonson Street (N)	Left Turn	A	6	0	0.27	A	6	0	0.28
	Through	A	0	0	0.27	A	0	0	0.28
Overall	-	N/A	1	1	0.27	N/A	1	1	0.28

As shown, the Jonson Street / Carlyle Street intersection is expected to operate within acceptable performance limits for design traffic volumes for the expected year of opening (2021) and 10-year design horizon (2031). Minimal increase is noted as a result of development generated traffic.

The SIDRA Network results for the Jonson Street / Development Access intersection for the forecast design traffic volumes are summarised in Table 3.8 for years 2021 and 2031.

Table 3.8: Jonson Street / Development Access Design SIDRA Results Summary

Intersection	Movement	2021 Design				2031 Design			
		LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period									
Jonson Street (S)	Left Turn	A	5	0	0.31	A	5	0	0.32
	Through	A	0	0	0.31	A	0	0	0.32
Jonson Street (N)	Through	A	0	0	0.21	A	0	0	0.22
	Right Turn	A	5	0	0.04	A	6	0	0.04
Development Access (W)	Left Turn	A	8	1	0.12	A	8	1	0.12
	Right Turn	C	19	1	0.12	C	21	1	0.12
Overall	-	N/A	1	1	0.31	N/A	1	1	0.32
PM Peak Period									
Jonson Street (S)	Left Turn	A	5	0	0.25	A	5	0	0.26
	Through	A	0	0	0.25	A	0	0	0.26
Jonson Street (N)	Through	A	0	0	0.23	A	0	0	0.24
	Right Turn	A	5	1	0.09	A	5	1	0.09
Development Access (W)	Left Turn	A	7	2	0.21	A	7	2	0.22
	Right Turn	C	18	2	0.21	C	20	2	0.22
Overall	-	N/A	2	2	0.25	N/A	2	2	0.26
Weekend Peak Period									
Jonson Street (S)	Left Turn	A	5	0	0.26	A	5	0	0.27
	Through	A	0	0	0.26	A	0	0	0.27
Jonson Street (N)	Through	A	0	0	0.23	A	0	0	0.25
	Right Turn	A	5	1	0.09	A	5	1	0.10
Development Access (W)	Left Turn	A	7	2	0.20	A	7	2	0.21
	Right Turn	C	19	2	0.20	C	20	2	0.21
Overall	-	N/A	2	2	0.26	N/A	2	2	0.27

As shown, the Jonson Street / Development Access intersection operates within acceptable performance limits for design traffic volumes for the expected year of opening (2021) and 10-year design horizon (2031). Minimal increase is noted as a result of development generated traffic.

3.6.3 Jonson Street / Kingsley Street Intersection

The Jonson Street / Kingsley Street intersection layout as assessed in SIDRA is shown in Figure 3.3.

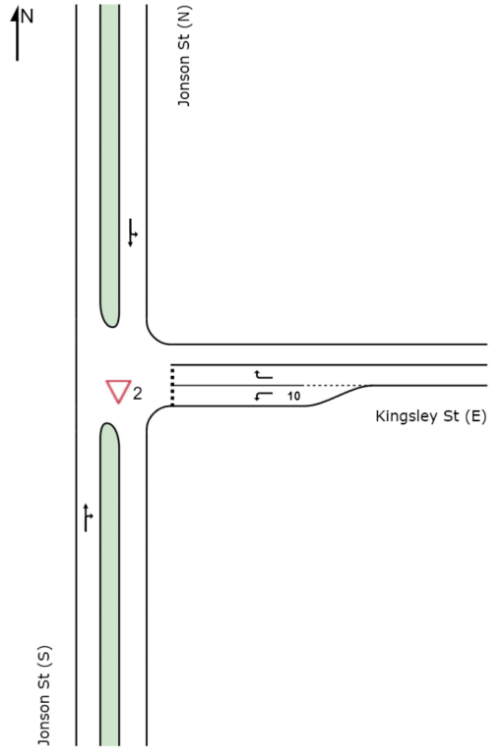


Figure 3.3: Jonson Street / Kingsley Street SIDRA Intersection Layout

The SIDRA Intersection results for the Jonson Street / Kingsley Street intersection for the forecast background traffic volumes are summarised in Table 3.9 for years 2021 and 2031.

Table 3.9: Jonson Street / Kingsley Street Background SIDRA Results Summary

Intersection	Movement	2021 Background				2031 Background			
		LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period									
Jonson Street (S)	Through	A	0	3	0.34	A	0	3	0.36
	Right Turn	A	9	3	0.34	A	9	3	0.36
Kingsley Street (E)	Left Turn	A	6	0	0.01	A	6	0	0.01
	Right Turn	B	13	1	0.05	B	15	1	0.06
Jonson Street (N)	Left Turn	A	5	0	0.21	A	5	0	0.22
	Through	A	0	0	0.21	A	0	0	0.22
Overall	-	N/A	1	3	0.34	N/A	1	3	0.36
PM Peak Period									
Jonson Street (S)	Through	A	0	2	0.26	A	0	2	0.28
	Right Turn	A	8	2	0.26	A	9	2	0.28
Kingsley Street (E)	Left Turn	A	6	0	0.00	A	6	0	0.00
	Right Turn	B	12	2	0.09	B	13	2	0.11
Jonson Street (N)	Left Turn	A	5	0	0.28	A	5	0	0.30
	Through	A	0	0	0.28	A	0	0	0.30
Overall	-	N/A	1	2	0.28	N/A	1	2	0.30
Weekend Peak Period									
Jonson Street (S)	Through	A	0	2	0.28	A	0	2	0.30
	Right Turn	A	7	2	0.28	A	8	2	0.30
Kingsley Street (E)	Left Turn	A	6	1	0.02	A	6	1	0.02
	Right Turn	B	11	2	0.10	B	12	2	0.11
Jonson Street (N)	Left Turn	A	5	0	0.24	A	5	0	0.25
	Through	A	0	0	0.24	A	0	0	0.25
Overall	-	N/A	1	2	0.28	N/A	1	2	0.30

As shown, the Jonson Street / Kingsley Street intersection operates within acceptable performance limits for background traffic volumes for the expected year of opening (2021) and 10-year design horizon (2031).

The SIDRA Intersection results for the Jonson Street / Kingsley Street intersection for the forecast design traffic volumes are summarised in Table 3.10 for years 2021 and 2031.

Table 3.10: Jonson Street / Kingsley Street Design SIDRA Results Summary

Intersection	Movement	2021 Design				2031 Design			
		LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period									
Jonson Street (S)	Through	A	0	3	0.34	A	0	3	0.36
	Right Turn	A	9	3	0.34	A	9	3	0.36
Kingsley Street (E)	Left Turn	A	6	0	0.01	A	6	0	0.01
	Right Turn	B	14	1	0.06	B	15	2	0.07
Jonson Street (N)	Left Turn	A	5	0	0.21	A	5	0	0.22
	Through	A	0	0	0.21	A	0	0	0.22
Overall	-	N/A	1	3	0.34	N/A	1	3	0.36
PM Peak Period									
Jonson Street (S)	Through	A	0	2	0.27	A	0	2	0.29
	Right Turn	A	9	2	0.27	A	9	2	0.29
Kingsley Street (E)	Left Turn	A	6	0	0.00	A	6	0	0.00
	Right Turn	B	12	2	0.10	B	13	2	0.11
Jonson Street (N)	Left Turn	A	5	0	0.29	A	5	0	0.30
	Through	A	0	0	0.29	A	0	0	0.30
Overall	-	N/A	1	2	0.29	N/A	1	2	0.30
Weekend Peak Period									
Jonson Street (S)	Through	A	0	2	0.29	A	0	2	0.30
	Right Turn	A	7	2	0.29	A	8	2	0.30
Kingsley Street (E)	Left Turn	A	6	1	0.02	A	6	1	0.02
	Right Turn	B	12	2	0.10	B	13	2	0.11
Jonson Street (N)	Left Turn	A	5	0	0.24	A	5	0	0.25
	Through	A	0	0	0.24	A	2	0	0.25
Overall	-	N/A	1	2	0.29	N/A	1	2	0.30

As shown, the Jonson Street / Kingsley Street intersection operates within acceptable performance limits for design traffic volumes for the expected year of opening (2021) and 10-year design horizon (2031). Minimal increase is noted as a result of development generated traffic.

3.6.4 Jonson Street / Marvell Street Intersection

The Jonson Street / Marvell Street intersection layout as assessed in SIDRA is shown in Figure 3.4.

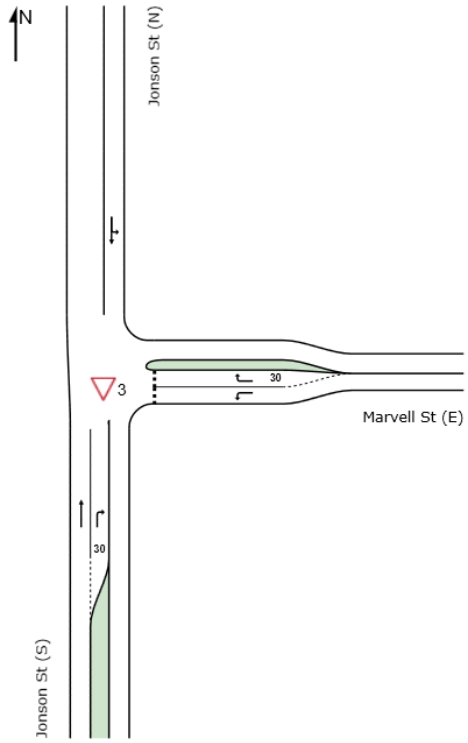


Figure 3.4: Jonson Street / Marvell Street SIDRA Intersection Layout

The SIDRA Intersection results for the Jonson Street / Marvell Street intersection for the forecast background traffic volumes are summarised in Table 3.11 for years 2021 and 2031.

Table 3.11: Jonson Street / Marvell Street Background SIDRA Results Summary

Intersection	Movement	2021 Background				2031 Background			
		LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period									
Jonson Street (S)	Through	A	0	0	0.29	A	0	0	0.31
	Right Turn	A	7	1	0.04	A	7	1	0.05
Marvell Street (E)	Left Turn	A	5	2	0.06	A	5	2	0.06
	Right Turn	C	19	7	0.26	C	22	8	0.30
Jonson Street (N)	Left Turn	A	5	0	0.27	A	5	0	0.28
	Through	A	0	0	0.27	A	0	0	0.28
Overall	-	N/A	2	7	0.29	N/A	2	8	0.31
PM Peak Period									
Jonson Street (S)	Through	A	0	0	0.25	A	0	0	0.26
	Right Turn	A	7	3	0.11	A	7	4	0.12
Marvell Street (E)	Left Turn	A	5	3	0.12	A	6	4	0.13
	Right Turn	C	20	8	0.31	C	22	10	0.36
Jonson Street (N)	Left Turn	A	5	0	0.28	A	5	0	0.30
	Through	A	0	0	0.28	A	0	0	0.30
Overall	-	N/A	3	8	0.31	N/A	3	10	0.36
Weekend Peak Period									
Jonson Street (S)	Through	A	0	0	0.26	A	0	0	0.27
	Right Turn	A	7	3	0.09	A	7	3	0.10
Marvell Street (E)	Left Turn	A	5	4	0.13	A	5	4	0.15
	Right Turn	C	19	9	0.32	C	21	10	0.37
Jonson Street (N)	Left Turn	A	5	0	0.26	A	5	0	0.27
	Through	A	0	0	0.26	A	0	0	0.27
Overall	-	N/A	3	9	0.32	N/A	3	10	0.37

As shown, the Jonson Street / Marvell Street intersection operates within acceptable performance limits for background traffic volumes for the expected year of opening (2021) and 10-year design horizon (2031).

The SIDRA Intersection results for the Jonson Street / Marvell Street intersection for the forecast design traffic volumes are summarised in Table 3.12 for years 2021 and 2031.

Table 3.12: Jonson Street / Marvell Street Design SIDRA Results Summary

Intersection	Movement	2021 Design				2031 Design			
		LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period									
Jonson Street (S)	Through	A	0	0	0.30	A	0	0	0.32
	Right Turn	A	7	1	0.05	A	7	2	0.05
Marvell Street (E)	Left Turn	A	5	2	0.06	A	5	2	0.06
	Right Turn	C	20	7	0.27	C	24	8	0.32
Jonson Street (N)	Left Turn	A	5	0	0.27	A	5	0	0.28
	Through	A	0	0	0.27	A	0	0	0.28
Overall	-	N/A	2	7	0.30	N/A	2	8	0.32
PM Peak Period									
Jonson Street (S)	Through	A	0	0	0.26	A	0	0	0.28
	Right Turn	A	7	3	0.12	A	7	4	0.13
Marvell Street (E)	Left Turn	A	5	4	0.13	A	6	4	0.14
	Right Turn	C	21	9	0.33	C	24	10	0.38
Jonson Street (N)	Left Turn	A	5	0	0.29	A	5	0	0.31
	Through	A	0	0	0.29	A	0	0	0.31
Overall	-	N/A	3	9	0.33	N/A	3	10	0.38
Weekend Peak Period									
Jonson Street (S)	Through	A	0	0	0.27	A	0	0	0.28
	Right Turn	A	7	3	0.10	A	7	3	0.11
Marvell Street (E)	Left Turn	A	5	4	0.14	A	5	4	0.15
	Right Turn	C	21	10	0.34	C	24	11	0.40
Jonson Street (N)	Left Turn	A	5	0	0.26	A	5	0	0.28
	Through	A	0	0	0.26	A	0	0	0.28
Overall	-	N/A	3	10	0.34	N/A	3	11	0.40

As shown, the Jonson Street / Marvell Street intersection operates within acceptable performance limits for design traffic volumes for the expected year of opening (2021) and 10-year design horizon (2031). Minimal increase is noted as a result of development generated traffic.

3.6.5 Sensitivity Analysis

A sensitivity test was conducted assuming a 2.4% compounding growth. SIDRA Intersection 8 was used to model the impact of background and design sensitivity traffic on the surrounding intersections for the expected year of opening (2021) and 10-year design horizon (2031). Detailed SIDRA results are provided in Appendix D.

The SIDRA Intersection results for the intersections in the surrounding network are summarised in Table 3.13 for 2021 and 2031 background sensitivity test volumes.

Table 3.13: SIDRA Sensitivity Analysis - Background Results Summary

Intersection	2021 Background				2031 Background			
	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period								
Jonson Street / Carlyle Street	N/A	1	1	0.32	N/A	1	2	0.40
Jonson Street / Dev Access	N/A	1	1	0.32	N/A	1	1	0.40
Jonson Street / Kingsley Street	N/A	1	4	0.30	N/A	2	7	0.38
Jonson Street / Marvell Street	N/A	2	8	0.30	N/A	4	20	0.67
PM Peak Period								
Jonson Street / Carlyle Street	N/A	1	1	0.27	N/A	2	2	0.34
Jonson Street / Dev Access	N/A	1	2	0.25	N/A	1	2	0.31
Jonson Street / Kingsley Street	N/A	1	3	0.28	N/A	2	5	0.36
Jonson Street / Marvell Street	N/A	3	9	0.34	N/A	5	26	0.78
Weekend Peak Period								
Jonson Street / Carlyle Street	N/A	1	1	0.27	N/A	2	2	0.34
Jonson Street / Dev Access	N/A	1	1	0.26	N/A	1	2	0.32
Jonson Street / Kingsley Street	N/A	1	2	0.28	N/A	1	4	0.37
Jonson Street / Marvell Street	N/A	3	10	0.35	N/A	5	28	0.78

As shown, with the adoption of a 2.4% p.a. compounding growth rate, all intersections generally operate within acceptable performance limits by the year 2031 with background traffic volumes.

The SIDRA Intersection results for the intersections in the surrounding network are summarised in Table 3.14 for 2021 and 2031 design sensitivity test volumes.

Table 3.14: SIDRA Sensitivity Analysis - Design Results Summary

Intersection	2021 Design				2031 Design			
	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS	LOS	Avg. Delay (s)	95%ile Queue (m)	DOS
AM Peak Period								
Jonson Street / Carlyle Street	N/A	1	1	0.33	N/A	1	2	0.42
Jonson Street / Dev Access	N/A	1	1	0.32	N/A	1	2	0.40
Jonson Street / Kingsley Street	N/A	1	5	0.38	N/A	2	11	0.51
Jonson Street / Marvell Street	N/A	2	8	0.31	N/A	4	22	0.72
PM Peak Period								
Jonson Street / Carlyle Street	N/A	1	1	0.28	N/A	2	3	0.35
Jonson Street / Dev Access	N/A	2	2	0.26	N/A	2	4	0.32
Jonson Street / Kingsley Street	N/A	1	3	0.31	N/A	2	10	0.43
Jonson Street / Marvell Street	N/A	3	10	0.37	N/A	6	31	0.84
Weekend Peak Period								
Jonson Street / Carlyle Street	N/A	1	1	0.28	N/A	2	3	0.35
Jonson Street / Dev Access	N/A	2	2	0.27	N/A	2	3	0.33
Jonson Street / Kingsley Street	N/A	1	2	0.28	N/A	1	3	0.38
Jonson Street / Marvell Street	N/A	3	11	0.38	N/A	7	35	0.86

As shown, with the adoption of a 2.4% p.a. compounding growth rate, all intersections generally operate within acceptable performance limits by the year 2031 with design traffic volumes. It is noted that DOS exceeds 0.8 at the Jonson Street / Marvell Street intersection in the PM and weekend peak by 2031. However, delays and queues are not significantly higher than expected in the background traffic scenario.

3.6.6 SIDRA Results Summary

A summary of the SIDRA assessment is illustrated in Table 3.15.

Table 3.15: SIDRA Results Summary

Intersection	2021 Background	2021 Design	2031 Background	2031 Design
Jonson Street / Carlyle Street				
Jonson Street / Development Access				
Jonson Street / Kingsley Street				
Jonson Street / Marvell Street				

Operates within acceptable performance limits

Generally operates within acceptable performance limits however DOS exceeds 0.8

Does not operate within acceptable performance limits

As shown, the intersections in the vicinity of the proposed development are expected to operate within acceptable performance limits at the year 2031 with or without the proposed development. It is also noted that development generated traffic has a negligible impact on intersection performance.

A summary of the SIDRA sensitivity test assessment is shown in Table 3.16.

Table 3.16: SIDRA Sensitivity Test Results Summary

Intersection	2021 Background	2021 Design	2031 Background	2031 Design
Jonson Street / Carlyle Street				
Jonson Street / Development Access				
Jonson Street / Kingsley Street				
Jonson Street / Marvell Street				

Operates within acceptable performance limits

Generally operates within acceptable performance limits however DOS exceeds 0.8

Does not operate within acceptable performance limits

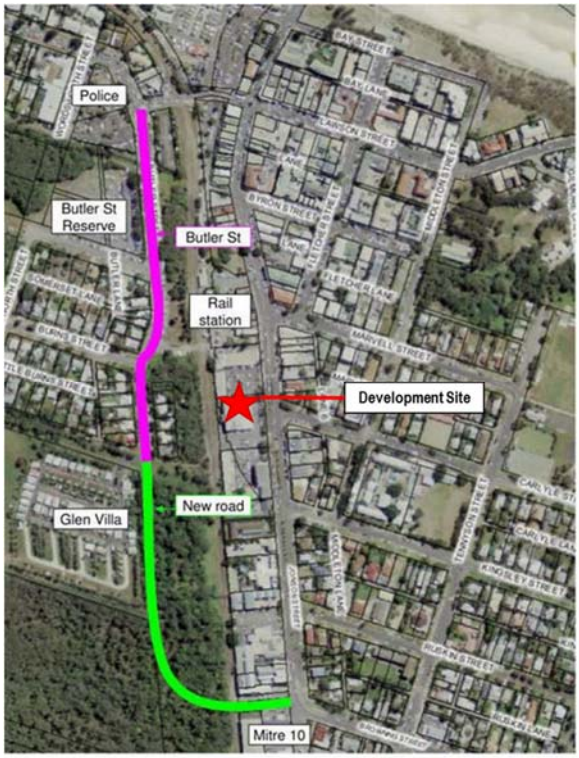
As shown, with a 2.4% p.a. compounding growth rate applied, intersections generally operate within acceptable performance limits. It is however noted that by 2031 the degree of saturation (DOS) exceeds 0.8 at the Jonson Street / Marvell Street intersection with development generated traffic. However, average delays (7 seconds) and 95%ile queues (35m) are considered acceptable. Considering all scenarios tested the proposed development is therefore not considered to have an adverse impact on intersection performance in the surrounding road network.

It is also noted that the above assessment does not consider expected traffic reductions on Jonson Street as a result of the construction of the Byron Bay Bypass as discussed in the following section.

3.7 FUTURE CONDITIONS

3.7.1 Byron Bypass Traffic Redistribution

The Byron Bay Bypass is expected to significantly benefit traffic conditions on the road network surrounding the hotel development site. As shown in Figure 3.5, the bypass will connect the Butler Street / Shirley Street Intersection to the southern end of Jonson Street with the upgrade and extension of the existing Butler Street roadway.



Source: Echo Net Daily

Figure 3.5: Byron Bay Bypass

The West Byron Development Transport Study prepared by Veitch Lister Consulting (VLC) in March 2011, used strategic modelling to assess the impacts of several bypass options on the surrounding road network. Figure 3.6 illustrates the forecast 2028 background traffic volumes in the Byron Bay township.

Source: West Byron Development Transport Study

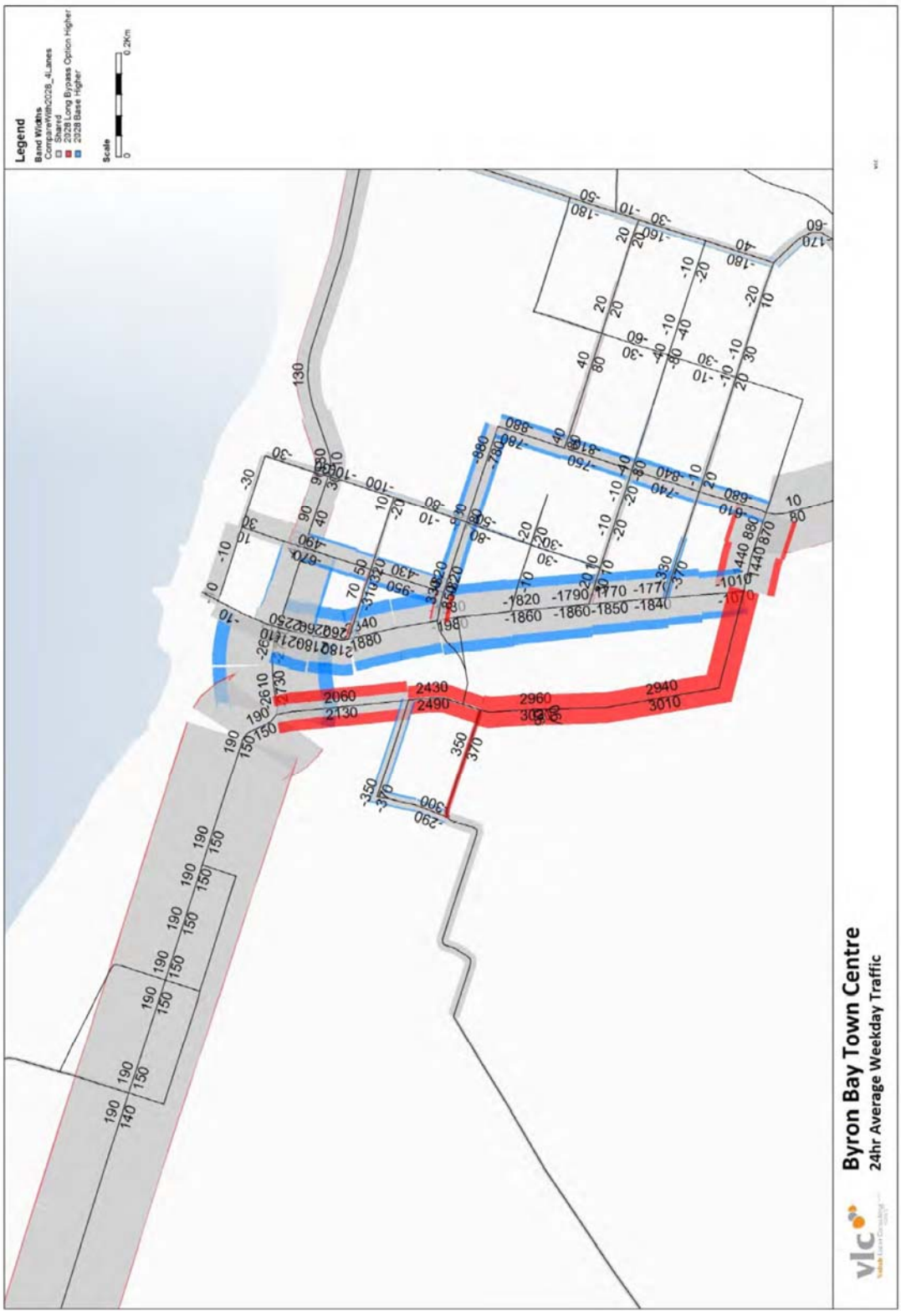
Figure 3.6: Strategic Model 2028 Forecast Daily Traffic Volumes

Figure 3.7 illustrates the daily traffic volumes in the Byron Bay township upon completion of the proposed Byron Bay Bypass. It is noted that in this model, Ewingsdale Road was also widened to a 4-lane cross-section.

Source: West Byron Development Transport Study

Figure 3.7: Strategic Model 2028 Daily Traffic Volumes with Byron Bypass

Figure 3.8 illustrates a comparison in daily trip volumes on the Byron Bay township road network with and without the proposed Byron Bay bypass.



Source: West Byron Development Transport Study

Figure 3.8: Strategic Model 2028 Daily Traffic Volume Comparison

As shown, the Byron Bypass is expected to reduce daily vehicle trips on Jonson Street fronting the hotel site by approximately 3,600 vehicles per day. This corresponds to approximately a 28% reduction on the 12,600 daily vehicle trips on Jonson Street without the bypass. Assuming a similar reduction in trips occurs during peak periods, this would significantly benefit Jonson Road and the intersections in the immediate vicinity of the development. The bypass is currently under construction and is expected to be complete late 2020.

4. PARKING & ACCESS ASSESSMENT

4.1 CAR PARKING

4.1.1 DCP Assessment

The site's car parking requirements as stipulated in the Byron Shire Council Development Control Plan (DCP) are detailed in Table 4.1, noting that the proposed site is located on land zoned as B2 'Local Centre' and therefore the lower parking rate for a 'Food & Drink Premises' is applicable.

Table 4.1: DCP Car Parking Requirements

Land Use	Parking Rate	Quantity	Spaces Required	Spaces Supplied
Hotel	1 space per unit plus 1 space per 2 employees	146 Rooms + 120 Employees	266	103 (Incl. 8 Shared Spaces)
Restaurant & Function Rooms	1 per 20m^2	875m^2	44	
Retail	45m^2	1 space per 20m^2	3	
		Total	313	103

As shown, the proposed car parking provision results in a significant shortfall when assessing the site strictly against the requirements of Council's DCP noting that

4.1.2 First Principles Assessment

Considering the type of development proposed and the central location of the site within the Byron Bay CBD, provision of car parking as per the DCP rates would be considered excessive. The provision of unnecessarily large quantities of parking directly conflicts with the objectives of Council's Transport Policy, specifically Objective 1.1 of the *Byron Shire Council Strategic Transport Statement (2019)* to "*reduce the need for and/or dependency on private motor vehicle trips*". A specific tool for implementation outlined in the Transport Policy is to manage private vehicle demand through the reduction of parking. As such, a first principles assessment has been conducted for the proposed development to determine appropriate minimum car parking requirements meeting the demands of the site with minimal promotion of private vehicle trips to / from the site.

The applicant has indicated that the proposed development will employ 120 staff totalled across the hotel, restaurant and retail land uses. These staff will work in shifts over the operations of the site. It is conservatively assumed that a maximum of 80 staff (two-thirds of all employed) will be on-site at one time. Journey to work data sourced from *profile.id* indicates that 52.9% of employed persons drive their private vehicle to work in Byron Bay. As such, 0.529 parking spaces shall be provided per maximum staff expected to be on-site simultaneously.

The DCP parking rate of 1 space per 20m^2 GFA is considered appropriate for guests of the restaurant and function rooms. However, the restaurant is considered to be a complimentary land use

Considering the minimal size of the retail portion of the development, for the purposes of the parking assessment, this area is considered to be ancillary to the hotel development and will only generate walk-up trade. As such, parking is not required for customers of the retail portion of the development, only staff.

The provision of one (1) parking space per hotel room, as per the DCP rates, is considered unnecessary for a hotel of this type in this location considering the following:

- the provision of a space for each unit encourages the use of private vehicle trips which conflicts with the objective of Council's Transport Policy;
- hotel guest parking can be managed by the operators through the room booking process and it is common practice for hotels of this type to not provide car parking spaces to all guests;

- based on surveys undertaken the RMS Guide to Traffic Generating Developments (2002) suggests a parking rate of 1 space per 5 rooms for 5-star hotels and 1 space per 4 rooms for 4-star hotels; and
- a letter has been provided by Andreas Pilz, Managing Director of UHL Hospitality, stating that one-entity hotel parking utilisation is "*seldom higher than 30%*". While this does not provide sufficient evidence to adopt a specific parking demand reduction, it does provide an indication that parking demand at similar type hotels is generally low. Please see Appendix E for the attached letter.

Based on the evidence above, parking provision for hotel guests lower than the DCP is considered desirable provided that transport options are still available to meet the demand of the guests. As will be discussed in further detail later in the report the following measures are proposed to meet the transport requirements of hotel guests further justifying reduced parking provision:

- ample bicycle and motorcycle parking is provided on-site to encourage other modes of transport;
- shuttle bus services are available from Gold Coast and Ballina airports providing guests alternate methods of transport to/from the surrounding airports;
- the existing active transport network in the area provides a high level of connectivity to surrounding land uses and tourist attractions;
- public transport facilities are available on Jonson Street in close vicinity to the site;
- the proposed porte-cochere encourages the use of taxis or ridesharing services as opposed to private vehicle use;
- it is proposed that a 'Sunpod' shared e-bike storage location be provided on-site providing guests with an effective and eco-friendly option to travel around Byron Bay; and
- eight (8) car share parking spaces are proposed on-site. These shared vehicles can meet the travel demands of multiple guests, minimising the demand for parking of private vehicles.

With the parking requirements for staff and restaurant patrons, 27 car parking spaces remain for use for hotel guests. Considering the above justifications for a reduced parking rate and the multitude of alternate transport options both currently available and proposed with the development, this provision of car parking is deemed to be appropriate.

A summary of the first principle's parking assessment is provided in Table 4.2.

Table 4.2: First Principle's Parking Assessment

Land Use	Quantity	Rate	Spaces Required	Spaces Supplied
Staff	120 Staff 80 On-site	0.529 Per On-Site Staff	43	103
Restaurant & Function Room (Guests)	875m^2	1 space per 20m^2 with 25% cross-utilisation	33	
Hotel Guests	146 Rooms	To be managed by hotel operators	n/a	
		Total	77+	103

4.1.3 Car Sharing

It is understood Byron Shire Council is currently investigating car sharing as a method of reducing car usage in within the Shire with particular focus on Byron Bay. As outlined on Council's website, benefits of car sharing include improved motor vehicle accessibility and affordability while also reducing congestion and environmental impacts.

As per Council's website *"for every car-share vehicle used, 10 vehicles are taken off the road"*. As such, it is reasonable to assume that each car sharing parking bay could be provided in lieu of 10 regular car parking spaces. Furthermore, car sharing is particularly attractive for hotel guests who are unlikely to require regular access to a vehicle. Essence of Byron guests are expected to have particularly irregular demand for vehicles considering the site's close proximity to the Byron Bay Town Centre, beaches etc. As guests only pay for a

vehicle when they are using it, car sharing is a very cost-effective alternative to traditional car rentals. As such, the provision car sharing is likely to be particularly effective at mitigating parking demand for hotel guests.

The car sharing bays proposed as a part of the Essence of Byron development, in accordance with the Byron Shire Council Car Share Implementation Procedure, are considered to be highly convenient as they will be located in a key commercial property area with nearby activity hubs and public transport facilities. Car sharing companies have large fleets of vehicles which include small economical vehicles and hybrids. The provision of these highly economical / hybrid share vehicles as an alternative to private vehicles reduces both the number of trips and average vehicle emissions per trip, working towards the Zero Emissions Byron transport targets.

4.2 BICYCLE PARKING

The site's bicycle parking requirements are stipulated in the Byron Shire Council Development Control Plan (DCP). The bicycles parking rates and subsequent parking requirements for each land use are shown in Table 4.3.

Table 4.3: Bicycle Parking Requirements

Land Use	Parking Rate	Quantity	Spaces Required	Spaces Supplied
Hotel	2 spaces	N/A	2	40 Visitor 14 Staff / Hotel Patron
Restaurant & Function Rooms	1 per 25m^2	875m^2	35	
Retail	45m^2	2 per 100m^2	2	
		Total	39	54

As shown, there is a total excess provision of 15 bicycle parking spaces proposed. 40 Visitor (Class C) bicycle parking spaces are proposed within the verge fronting the subject site and a further 14 Class B bicycle parking spaces are proposed within the hotel basement. Of the bicycle parking located in the basement, 10 spaces are allocated as staff bicycle parking and four (4) spaces are allocated for shared bicycle parking spaces for use by hotel guests. Class B and Class C bicycle parking shall be provided in accordance with the security requirements of AS2890.3. Staff locker rooms / toilets shall provide adequate end-of-trip facilities for staff use.

The *Austroads Guide to Traffic Management Part 11: Parking* stipulates a rate of 1 staff bicycle space per 100m^2 of restaurant GFA. As such, it is recommended that a total of 10 staff bicycle parking spaces be provided, including nine (9) staff bicycle spaces for the restaurant land use and one (1) staff bicycle parking space for the retail land use. As such, the proposed staff bicycle parking provision meets the recommended provision specified in the Austroads Guide.

Sunshine Cycles, a Byron Bay based solar e-bike rental business, is seeking new locations to base their shared e-bikes. As such, Sunshine Cycles has expressed interest in providing a 'Sunpod' at the proposed development location. This 'Sunpod' will act as a secure e-bike storage and solar charging station for the rental bikes. As notated on the development plans, it is proposed that the southernmost visitor bicycle parking area be used for shared bikes / e-bikes and as such this area can be used as the location for the 'Sunpod'.

By providing an excess in total bicycle parking provision, shared e-bike parking both in the basement for hotel guests and at the publicly accessible 'Sunpod' proposed and sufficient secure bicycle parking, the proposed development is considered to effectively encourage alternate transport measures. By encouraging travel by bicycle / e-bike, it is expected that the development's staff and visitors would be less reliant on private vehicle travel therefore resulting in a reduction in parking demand and private vehicle trips and working towards the objectives of the Zero Emissions Byron transport targets.

4.3 PARKING ACCESS & OPERATIONS

The design includes two (2) accesses to Jonson Street. The primary development access location will be via a 15.5m, two-way median divided all movements crossover shared with the neighbouring site. This crossover provides access to the development's proposed servicing areas and the hotel porte-cochere. Emergency vehicle access is also provided to the proposed basement level via the ramp access to the neighbouring site. Vehicles exiting the development's car park also leave the site via this shared basement ramp.

The staff and visitor entry to the basement carpark is provided via a one-way, left-in access at the northern end of the site. Access to the basement parking is proposed to be restricted by boom gates on entry and exit to the development.

4.4 INTERNAL LAYOUT

The on-site parking layout and geometry has been assessed against the relevant requirements of Australian Standards AS2890.1: 2004 – Off-Street Car Parking. The key outcomes of this assessment are detailed in Table 4.4.

Table 4.4: Car Parking Geometrical Assessment

Design Element	Requirement	Provided	Compliant
Hotel Guest Parking (User Class 2)	2.5m wide by 5.4m long	2.5m wide by 5.4m long	Yes
Hotel Staff Parking (User Class 1)	2.4m wide by 5.4m long	2.4m wide by 5.4m long	Yes
PWD / Accessible Parking Bays	2.4m wide by 5.4m long with an adjacent area of the same dimensions.	2.4m wide by 5.4m long with an adjacent area of the same dimensions.	Yes
Small Car Parking Bay	2.3m wide by 5.0m long	2.3m wide by 5.0m long	Yes
Motorcycle Parking Bays	2.5m long by 1.2m wide	2.5m long by 1.35m wide	Yes
Bicycle Parking Bays	1.8m long by 0.5m wide with an isle width of at least 1.5m where parked side by side	1.8m long by 0.5m wide with an isle width of at least 1.5m where parked side by side	Yes
Basement Ramp Width (One-way)	Minimum 3m wide with 300mm clearance to vertical obstructions	3.6m wide with 300mm clearance to vertical obstructions	Yes
Basement Ramp Gradient	Maximum 1 in 5 with grade transitions maximum 1 in 8 for summits and 1 in 6.7 for sags	1 in 5 grade with 1 in 10 ramp transitions	Yes
Aisle Width	5.8m plus 300mm clearance where a vertical obstruction is opposite	6.2m	Yes
Vertical Clearance	Minimum vertical clearance of 2.3m	Shall be a minimum 2.3m	Shall Comply

As shown, the development complies or shall comply with all relevant requirements of Australian Standards AS2890.1.

4.5 SERVICING

4.5.1 Loading Bays

It is noted that Table B4.2 of Council's DCP indicates that a 'tourist and visitor accommodation' development of the size proposed a total of six (6) loading bays would be required including a provision of an articulated vehicle (AV) service bay. The provision of six (6) loading areas for a development of this nature is considered a significant oversupply. It is not expected that servicing would occur simultaneously by more than two (2)

service vehicles. This expectation is consistent with the RMS Guide to Traffic Generating Developments (2002), which recommends a minimum of one (1) loading bay be provided on a hotel site per 100 rooms. It should also be noted the adjacent site, approved by Council, contains over 30 separate tenancies requiring deliveries and provides less than the six (6) loading bays that the DCP requires for the hotel site. Considering the above, the development proposes a total of two (2) loading areas on the ground floor of the site. Two (2) parking spaces in the basement are also of sufficient width to accommodate parking for a van (B99 vehicle) if required.

It is not expected that a service vehicle larger than a heavy rigid vehicle (HRV) would be required to service the site. This is consistent with the maximum servicing requirements for hotel and/or restaurant land uses within other coastal local government areas (i.e. Tweed Shire Council, City of Gold Coast). As such the provision of a loading bay for an AV is considered unnecessary.

The development therefore proposes a loading dock at the rear of the site. While this loading dock is only of sufficient size to contain a medium rigid vehicle (MRV) within the enclosed area, a HRV can be stored at this location wholly within the property.

4.5.2 Access & Manoeuvring

Service vehicle access and manoeuvring is proposed to use shared facilities with the adjacent shopping centre. Both developments will be serviced via the shared driveway crossover and utilise the common manoeuvring area located at the south-west corner of the site.

Service vehicles will enter via the shared access and utilise the manoeuvring area shared with the neighbouring site. Service vehicles for both the proposed development and the neighbouring site will exit via the proposed porte-cochere. A swept path assessment is provided in Appendix F demonstrating manoeuvrability of service vehicles for each site within the shared service area.

As shown, with the inclusion of the proposed hotel, an articulated vehicle (AV) will still be able to service the Mercato on Byron shopping Centre. However, the hotel loading dock must be clear of obstructions (including service vehicles) for AV manoeuvring to occur. In the event an HRV arrives to service the hotel while an AV is occupying the shopping centre's eastern AV loading dock, it will require a four-point manoeuvre to access the hotel loading dock. In the event the shopping centre's eastern AV loading dock is vacant, an HRV can access the hotel loading dock requiring a two-point manoeuvre. Alternatively, a medium rigid vehicle (MRV) can service the hotel in a two-point manoeuvre while AVs occupy both shopping centre loading bays.

Noting the conflicts above, servicing of the hotel (by HRVs) and servicing of the shopping centre (by AVs) will need to occur at separate times of day (outside of peak periods) to avoid conflicts. It is recommended that a service vehicle management plan (SVMP) is prepared for the hotel to manage proposed servicing operations including deliveries and waste collection. The plan should cover:

- access arrangements and internal layout
- use of the servicing area and procedures
- applicable servicing restrictions

Specifically, it will need to also consider the operations of the shopping centre loading dock and be developed in conjunction with the shopping centre's management and tenants. Furthermore, the shopping centre's existing SVMP will need to be revised to align with the proposed measures for managing servicing conflicts between the shopping centre and the hotel.

4.5.3 Vehicle Conflict

A queueing theory assessment was conducted for the service vehicle manoeuvring area to determine the likelihood of vehicle conflicts. For the assessment, it was conservatively assumed that a service vehicle accesses and egresses both the proposed hotel and shopping centre within the same hour and manoeuvring takes approximately 30 seconds. As such, it was determined that no service vehicle would be manoeuvring within the servicing area approximately 96.7% of the time. Furthermore, conservatively assuming that all trips to/from the hotel are via the proposed porte-cochere the hotel is expected to only generate approximately one (1) vehicle trip every two (2) minutes. As such the likelihood of potential conflict between vehicles

servicing the two sites and vehicles accessing the proposed porte-cochere is deemed to be negligible, especially considering that site servicing typically occurs outside peak periods. It is also noted that sufficient queuing area is available for a design service vehicle to yield in the unlikely event that it must wait for another vehicle to manoeuvre.

5. ALTERNATE TRANSPORT

5.1 PUBLIC TRANSPORT

Two bus stops are located within close proximity to the proposed development. The location of these stops, one opposite the site, one fronting the neighbouring site, are shown in Figure 5.1. It is noted that in addition to providing a public bus stop location these stops also service the Byron Bay Transit Centre that neighbours the proposed development site.

Source: Nearmap

Figure 5.1: Bus Stop Locations

Several bus services are available from the bus stop locations identified above. The details of these services are summarised in Table 5.1.

Table 5.1: Bus Service Details

Route	Service	Weekday Frequency	Weekend Frequency
610	Byron Bay to Lismore	3 x AM & 3 x PM services	N/A
635	Lismore to Mullumbimby, Brunswick Head & Byron Bay	School service	N/A
637B	Byron Bay to Byron Hills via Suffolk Park & Baywood Chase	Hourly	Hourly (evening only)
637S	Byron Bay to Sunrise Beach via Arts & Industry Estate (Loop Service)	Hourly	Hourly (evening only)
640	Mullumbimby to Ballina via Byron Bay, Suffolk Park & Lennox Head	45-90 minutes	3 services (Sunday)
640X	Byron Bay to Lismore via Lennox Head & Ballina	Single service	N/A
641	Byron Bay to Ballina via Bangalow	School service	N/A
641X	Byron Bay to Lismore via Bangalow, Clunes & Bexhill	Single AM & PM service	N/A
645	Ocean Shores to Byron Bay	Hourly	2 Hourly
PM42	Lismore to Brisbane (Intercity)	Once Daily	

In addition to the bus services / routes identified above a number of shuttle bus services available from the Byron Bay Transit Centre Neighbouring the site. Northbound and southbound daily services are available between Byron Bay and the Brisbane International Airport, Brisbane Domestic Airport, Brisbane CBD, Gold Coast Airport, Lennox Head, Ballina CBD, Lismore Transit Centre and Casino CBD. Additional regular shuttle and taxi services are also available between Byron Bay and the Ballina and Gold Coast airports.

As demonstrated, there are multiple cost-effective options available for both domestic and international tourists to travel to / from the site without the use of private vehicles or car rentals. Considering the tourism based-land use proposed on the subject site, it is expected that a significant portion of patrons will utilise these options.

5.2 ACTIVE TRANSPORT

The existing pedestrian facilities in the vicinity of the subject site are illustrated in Figure 5.2. As shown, the area is well connected by pedestrian footpaths and shared paths with pedestrian / zebra crossings and pedestrian refuges providing regular crossing points. These footpaths provide active transport connectivity to surrounding land uses with key attractors within 800m walking distance including:

- Mercato on Byron Shopping Centre (50m);
- Byron Bay Services Club (350m);
- Aldi Byron Bay (400m);
- Club Byron Bowls Club (400m);
- Byron Beach (700m); and
- Byron Bay Surf Life Saving Club (750m).

Source: Nearmap

Figure 5.2: Surrounding Active Transport Network

In addition to dedicated pedestrian facilities as shown above, the road environment immediate vicinity of the site is considered to have reasonable levels of amenity for cyclists. The road environment in the area typically encourages low vehicle travels speeds. The road carriageway of the majority of the surrounding roads is also wide and this width combined with the low speeds promotes a safer environment for on-road cyclists. A short length of dedicated cycle lane is also present on Carlyle Street between Jonson street and Middleton Street.

As such, the existing active transport network is considered to provide effective active transport connectivity between the site and surrounding destinations / attractors.

6. CONCLUSION

The key findings of the traffic impact assessment for the proposed hotel development located at 106 Jonson Street, Byron Bay are summarised as follows:

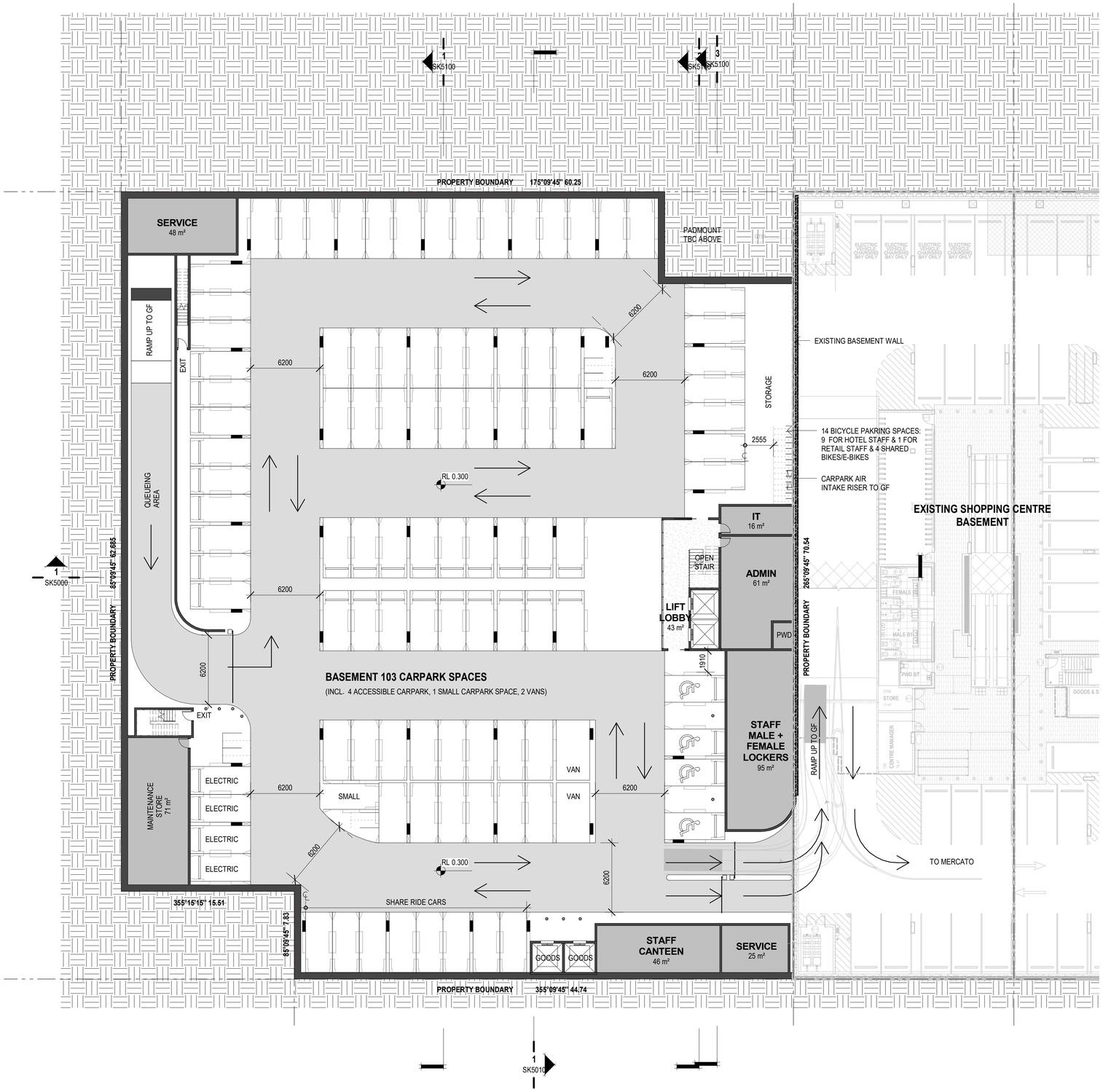
- the proposed development consists of 146 hotel rooms, a restaurant, function / meeting rooms, a small retail area and ancillary gym / pool areas;
- the proposed development is expected to generate 36 vehicle trips in the AM peak hour, 69 vehicle trips in the PM peak hour and 72 vehicle trips in the weekend peak hour;
- all intersections are expected to operate within acceptable performance limits for the background and design traffic volumes for the expected year of opening (2020) and 10-year design horizon (2030). Development generated traffic is also shown to have a negligible adverse impact on intersection performance;
- a sensitivity test was also conducted adopting a compounding 2.4% p.a. growth rate. With sensitivity test traffic volumes, DOS at the Jonson Street / Marvell Street intersection is expected to exceed 0.8 by 2030. However, intersection queues and delays are still within acceptable levels. Furthermore, with the completion of the Byron Bay Bypass traffic volumes are expected to reduce on Jonson Street;
- while as parking shortfall against Council's DCP rate is observed, the proposed development is considered to provide a sufficient number of car parking spaces to meet the demand of the proposed site;
- shared parking bays are also proposed on site that are expected to reduce visitor's dependence on private vehicle travel thereby reducing parking demand, vehicle trips to/from the development and promoting more sustainable transport. A MOU shall be provided by PopCar with the development application indicating their interest in providing shared vehicles;
- the proposed total provision of 54 bicycle parking spaces exceeds the DCP requirements for the proposed site. Staff bicycle parking and e-bike parking is located in the basement while it is also proposed that a Sunshine Cycles 'Sunpod' be implemented fronting the site encouraging alternate transport use;
- the development will be accessed via an all-movements shared driveway with the neighbouring site and a secondary left-in access to the basement;
- the development internal layout and geometry complies or shall comply with all relevant requirements of Australian Standards AS2890.1;
- a swept path assessment demonstrates that service vehicles can manoeuvre the site and ingress and egress in a forward gear via the proposed porte-cochere without conflicting with hotel guest vehicles stored at the porte-cochere. An SWMP is recommended to facilitate efficient servicing of the hotel and shopping centre;
- the likelihood of potential conflict between vehicles servicing the two sites and vehicles accessing the proposed porte-cochere is deemed to be negligible. However, it is recommended that servicing occur outside peak operating hours;
- there are multiple options in close vicinity to the site available for both domestic and international tourists to travel to / from the site using public transport; and
- existing footpaths provide effective active transport connectivity to surrounding land uses.

Based on the above assessment, it is concluded that there are no significant traffic or transport impacts associated with the proposed development to preclude its approval and relevant conditioning on transport planning grounds.

APPENDIX A

DEVELOPMENT PLANS

REV.	DATE		DESCRIPTION	DRAWN	CHECKED
15	181129	DA		JG	GD
16	181219	DA		JG	GD
A	190107	DA		JG	GD
B	190308	DA		JG	GD
C	190318	DA		JG	GD
G	200616	DA		TD	NR
J	200618	DA		TD	NR



- ADMIN
- GOODS LIFT
- IT
- LIFT LOBBY
- MAINTENANCE STORE
- PWD
- SERVICE
- STAFF CANTEEN
- STAFF MALE + FEMALE LOCKERS

NUMBER OF PARKING SPACES		
Mark	**Level**	**Count**
CARPARK	**Basement Level 1**	**96**
CARPARK PWD	**Basement Level 1**	**4**
CARPARK SMALL	**Basement Level 1**	**1**
CARPARK VAN	**Basement Level 1**	**2**

BASEMENT CARPARK SPACES: 103

BASEMENT MOTOR BIKE PARKING SPACES: 5

nra-co-lab™

NRA-Collaborative Pty Ltd
ABN 62 323 175 502
ACN 010 011 720

tel +61(0)7 3229 5266 info@nracolab.com
fax +61(0)7 3221 0796 www.nracolab.design

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106 JONSON STREET, BYRON BAY

BASEMENT

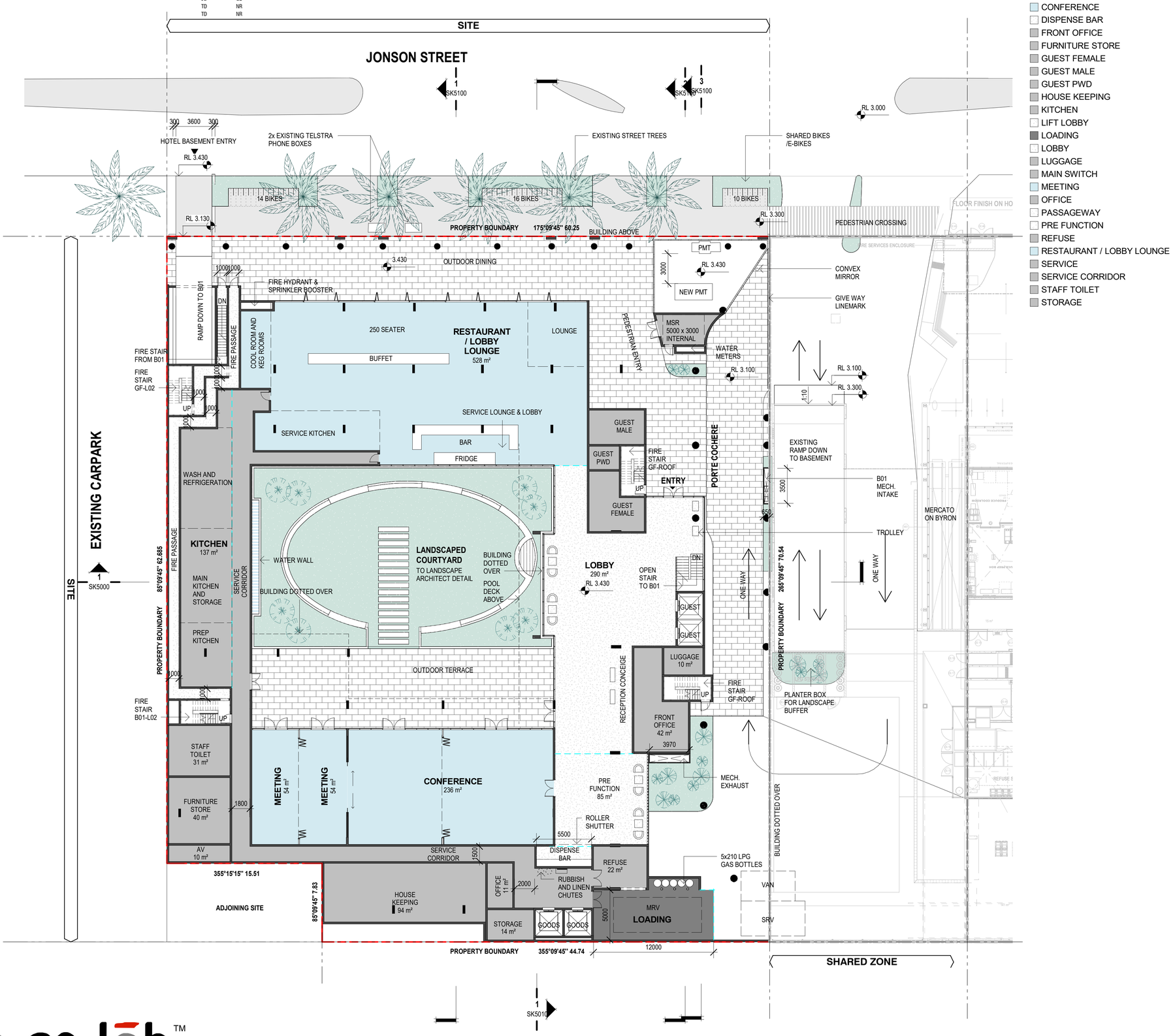
PRELIMINARY

DWG NO. NRA-84169-DD-SK2000
JOB NO. 53.162.C18 REV. J
SCALE 1 : 200@ A1 / 1 : 400@ A3
DATE 18/06/2020 10:09:38 AM

0 4 8 12 20m

C:\Users\tdunne\Documents\CF-53.162.C18-HOTEL24_tdunne.rvt

REV.	DATE		DESCRIPTION	DRAWN	CHECKED
15	181129	DA		JG	GD
16	181219	DA		JG	GD
A	190107	DA		JG	GD
B	190308	DA		JG	GD
C	190318	DA		JG	GD
G	200616	DA		TD	NR
J	200618	DA		TD	NR



- AV
- CONFERENCE
- DISPENSE BAR
- FRONT OFFICE
- FURNITURE STORE
- GUEST FEMALE
- GUEST MALE
- GUEST PWD
- HOUSE KEEPING
- KITCHEN
- LIFT LOBBY
- LOADING
- LOBBY
- LUGGAGE
- MAIN SWITCH
- MEETING
- OFFICE
- PASSAGEWAY
- PRE FUNCTION
- REFUSE
- RESTAURANT / LOBBY LOUNGE
- SERVICE
- SERVICE CORRIDOR
- STAFF TOILET
- STORAGE

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tel +61(0)7 3229 5266 info@nracolab.com
fax +61(0)7 3221 0796 www.nracolab.design

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106 JONSON STREET, BYRON BAY

GROUND LEVEL

PRELIMINARY

DWG NO. NRA-84169-DD-SK3000
JOB NO. 53.162.C18 REV. J
SCALE 1 : 200@ A1 / 1 : 400@ A3
DATE 18/06/2020 10:09:44 AM

0 4 8 12 20m

C:\Users\tdunne\Documents\CF-53.162.C18-HOTEL24_tdunne.rvt

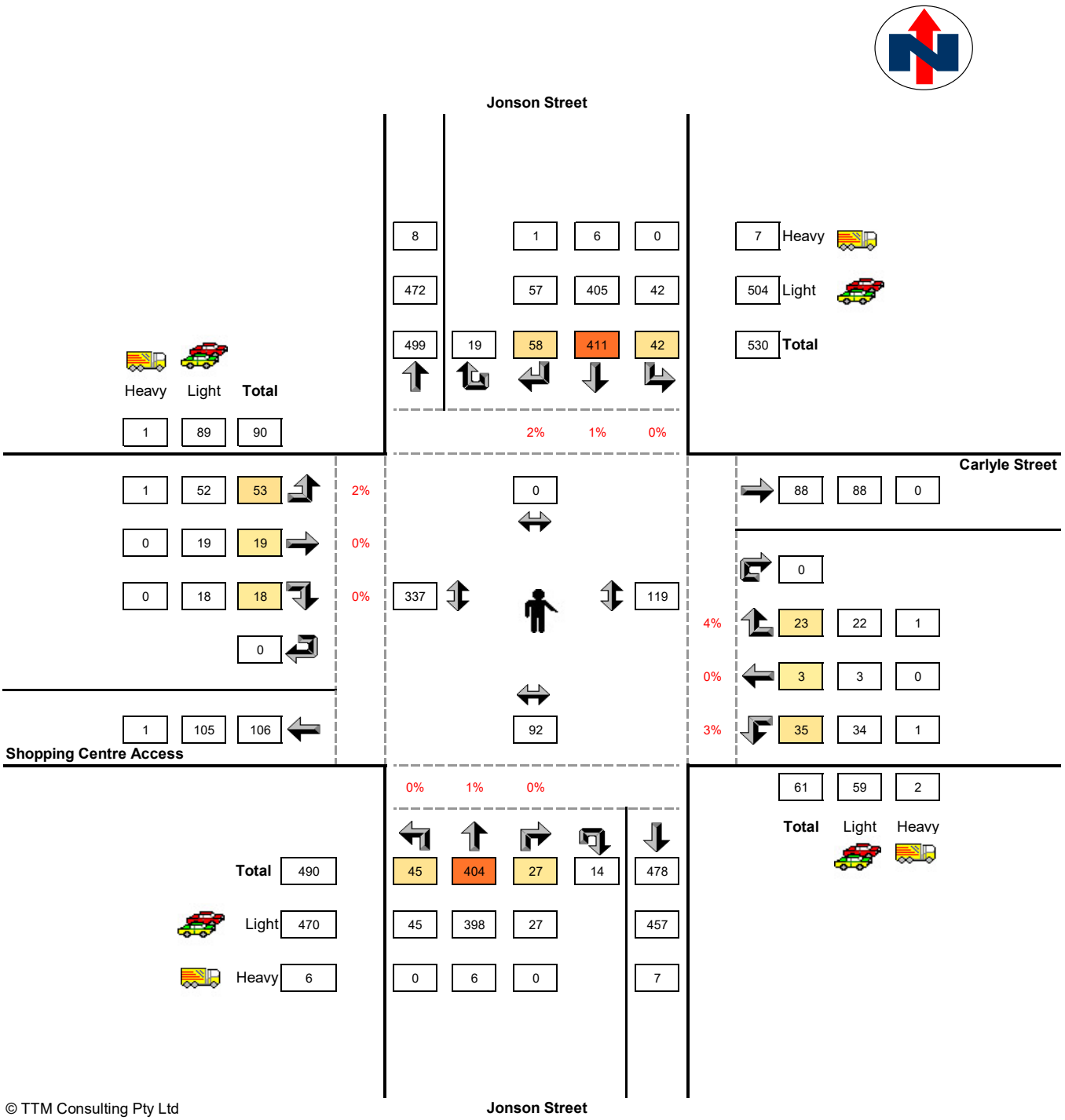
APPENDIX B

TRAFFIC SURVEYS

TTM Reference:	18GCT0271
Location:	S1. Jonson St / Carlyle St
Suburb:	Byron Bay
Date:	Thursday 28/11/2019
PM Peak:	1730-1830
Weather:	Fine

www.ttmgroup.com.au

00% indicates the heavy vehicle percentage

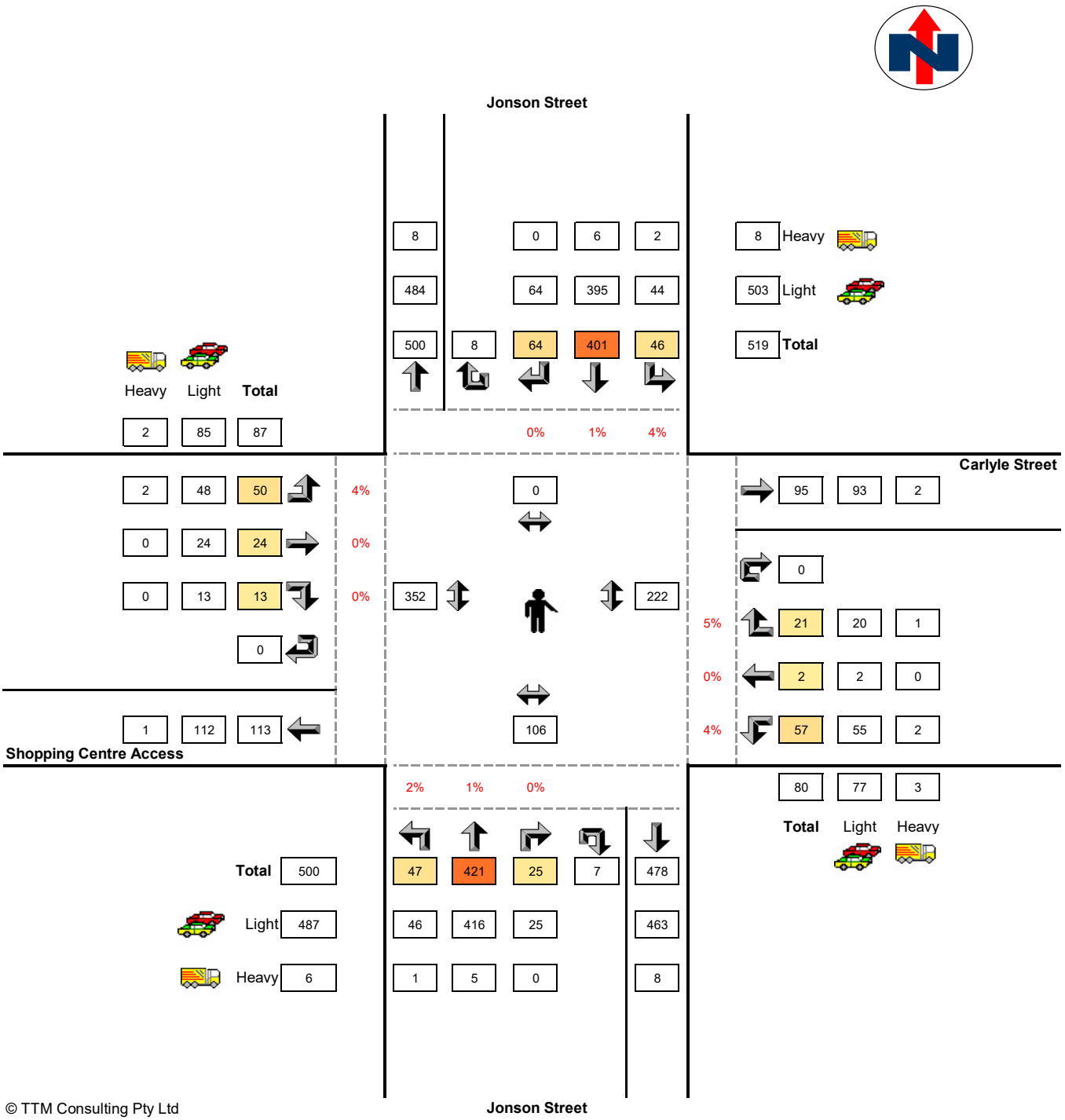


© TTM Consulting Pty Ltd

TTM Reference:	18GCT0271
Location:	S1. Jonson St / Carlyle St
Suburb:	Byron Bay
Date:	Saturday 23/11/2019
Peak:	1015-1115
Weather:	Fine

www.ttmgroup.com.au

00% indicates the heavy vehicle percentage



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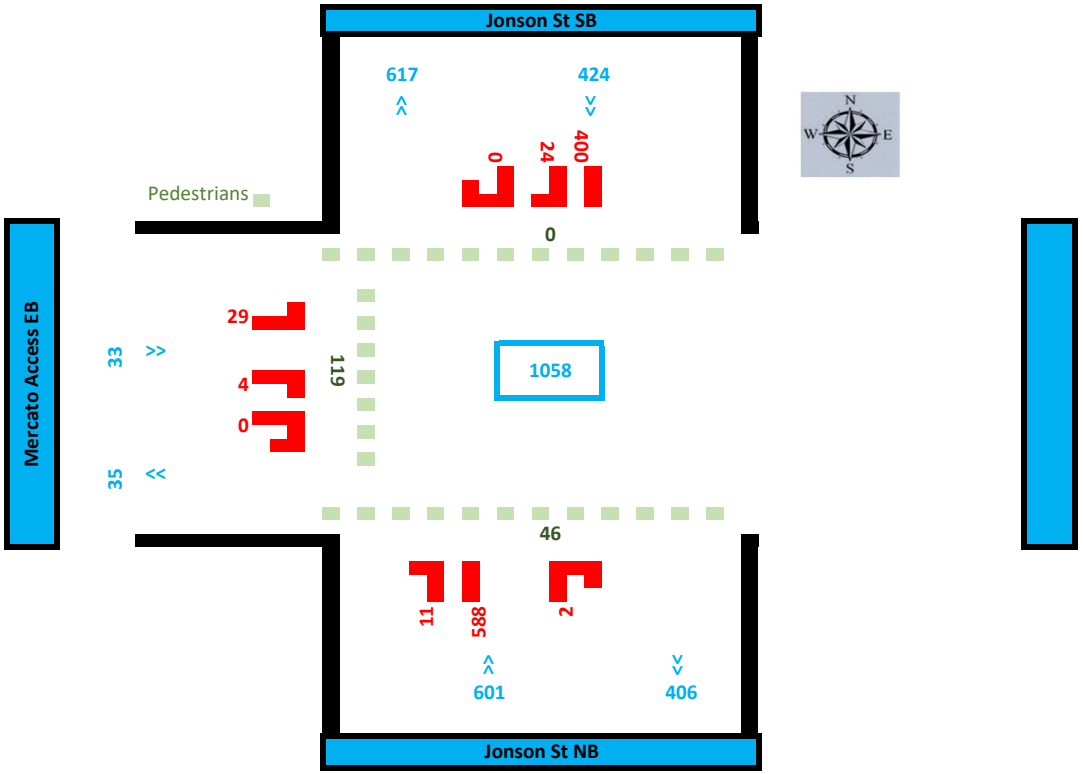
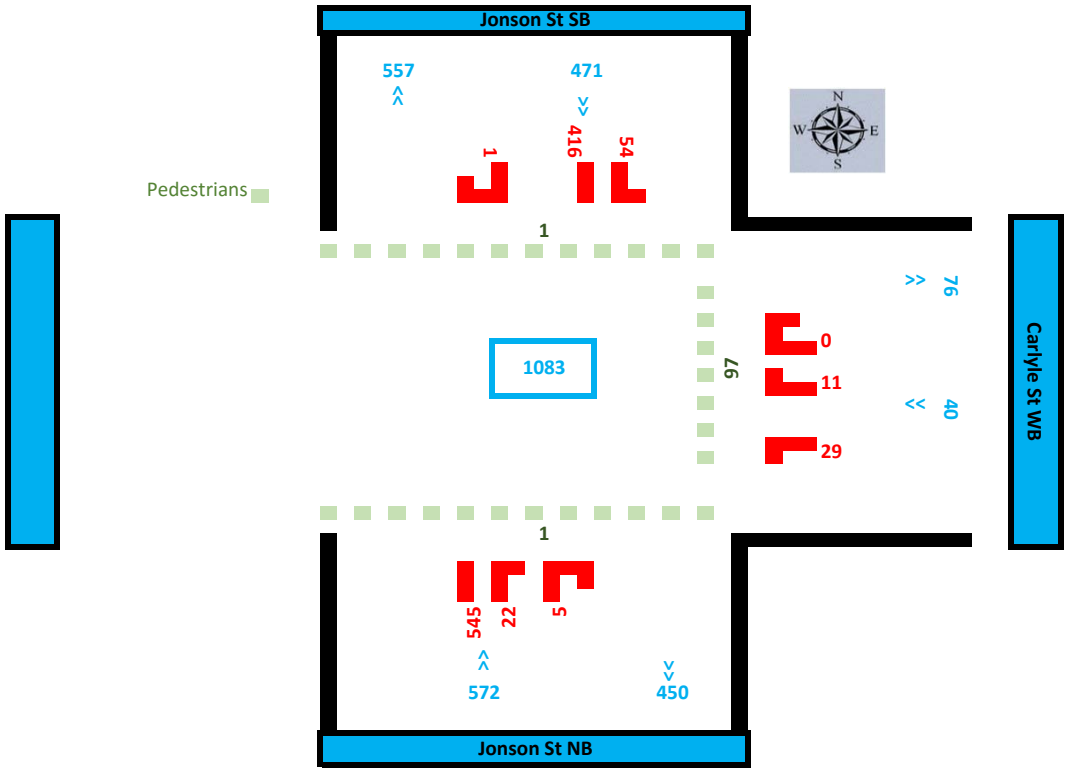
Turning Movement Count Summary

Site ID:	1
Location:	Jonson St & Mercato Access, Byron Bay
Date:	20-June-2019
Surveyed Time:	7:00 AM to 10:00 AM
Weather:	Fine
Data for hour starting:	8:15 AM to 9:15 AM
Vehicle Class:	ALL VEHICLES



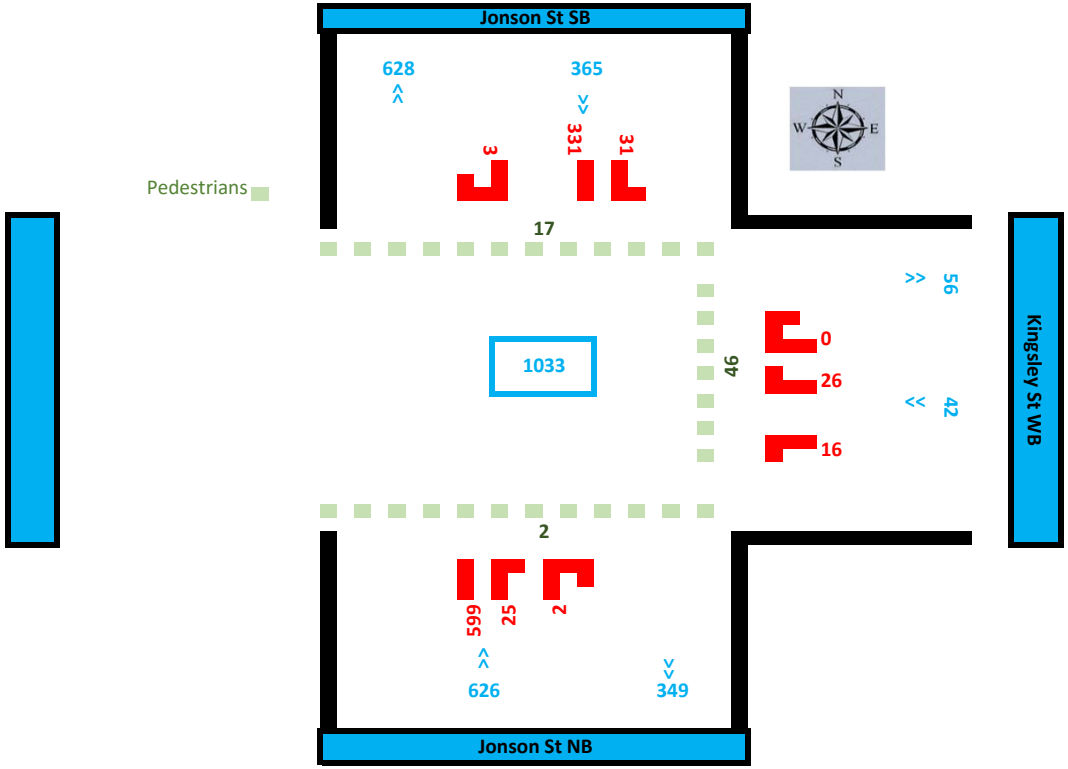
Turning Movement Count Summary

Site ID:	2
Location:	Jonson St & Carlyle St, Byron Bay
Date:	13-Sept-2018
Surveyed Time:	8:00 AM to 11:00 AM
Weather:	Fine
Data for hour starting:	8:00 AM to 9:00 AM
Vehicle Class:	ALL VEHICLES



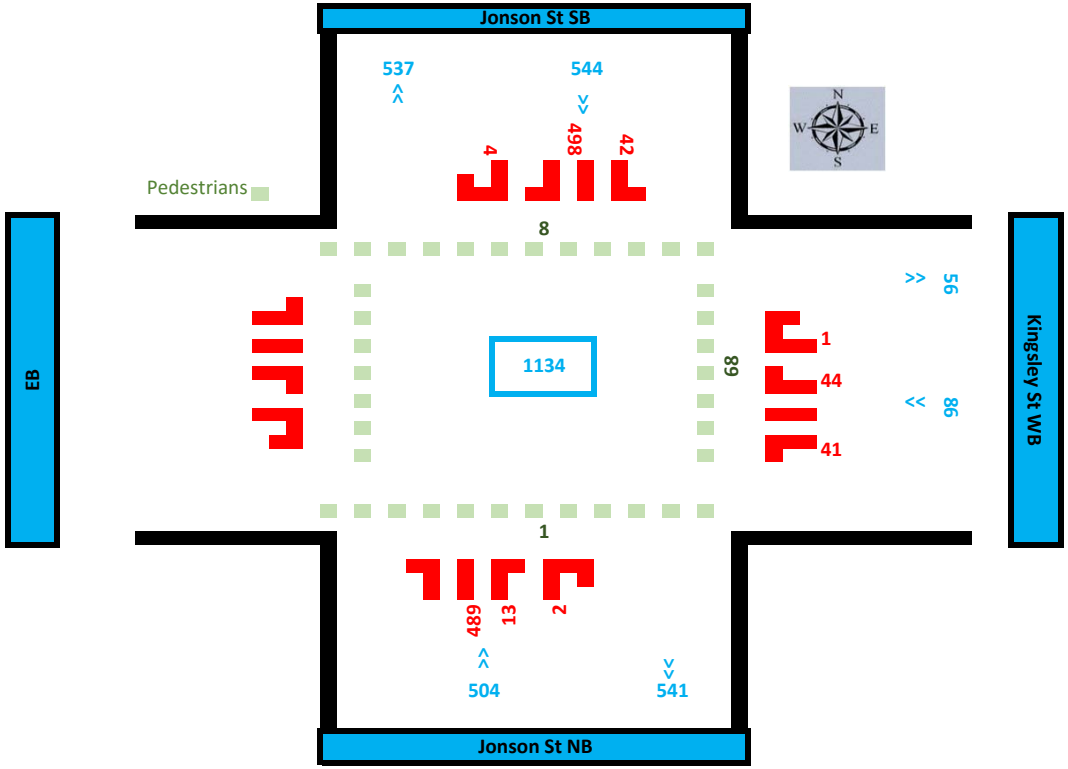
Turning Movement Count Summary

Site ID:	3
Location:	Jonson St & Kingsley St, Byron Bay
Date:	13-Sept-2018
Surveyed Time:	8:00 AM to 11:00 AM
Weather:	Fine
Data for hour starting:	8:00 AM to 9:00 AM
Vehicle Class:	ALL VEHICLES



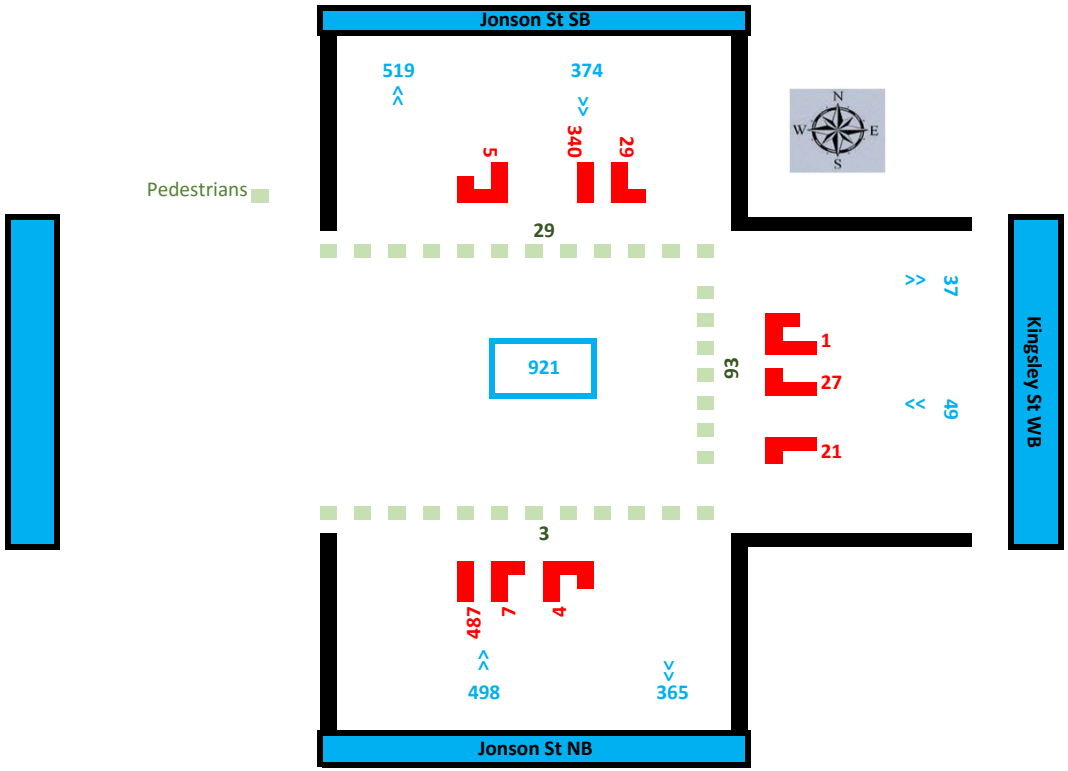
Turning Movement Count Summary

Site ID:	3
Location:	Jonson St & Kingsley St, Byron Bay
Date:	13-Sept-2018
Surveyed Time:	3:00 PM to 6:00 PM
Weather:	Fine
Data for hour starting:	3:15 PM to 4:15 PM
Vehicle Class:	ALL VEHICLES



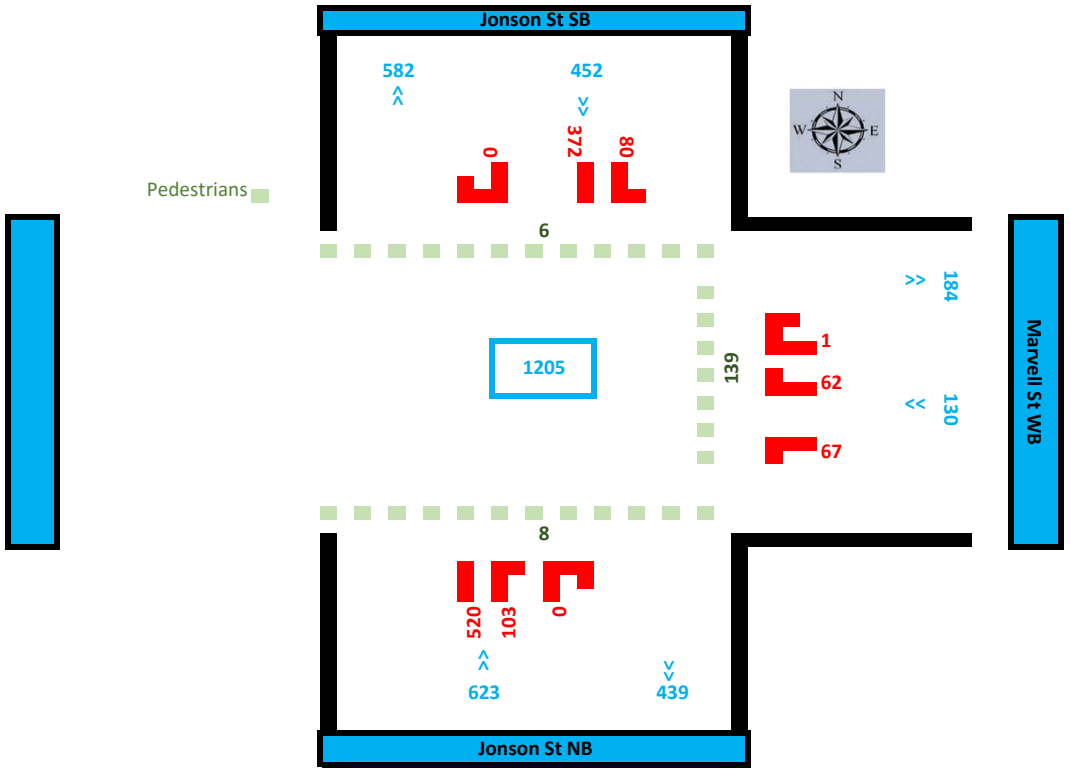
Turning Movement Count Summary

Site ID:	3
Location:	Jonson St & Kingsley St, Byron Bay
Date:	15-Sept-2018
Surveyed Time:	10:00 AM to 1:00 PM
Weather:	Fine
Data for hour starting:	10:00 AM to 11:00 AM
Vehicle Class:	ALL VEHICLES



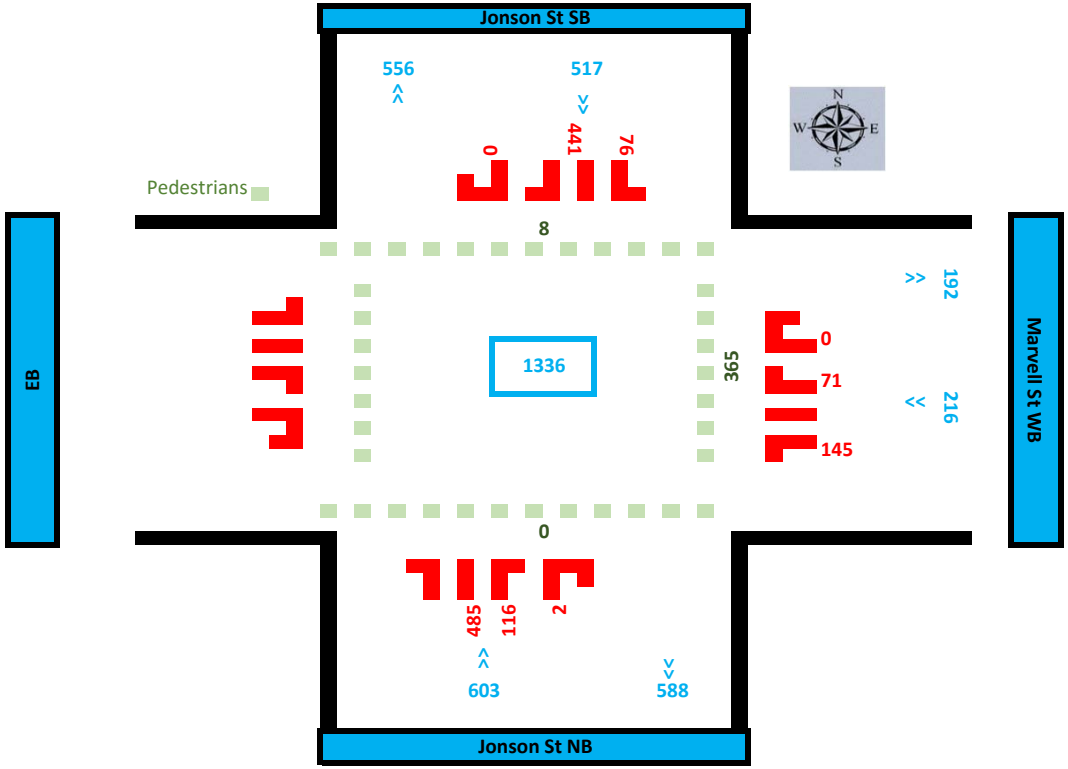
Turning Movement Count Summary

Site ID:	1
Location:	Jonson St & Marvell St, Byron Bay
Date:	13-Sept-2018
Surveyed Time:	8:00 AM to 11:00 AM
Weather:	Fine
Data for hour starting:	8:00 AM to 9:00 AM
Vehicle Class:	ALL VEHICLES



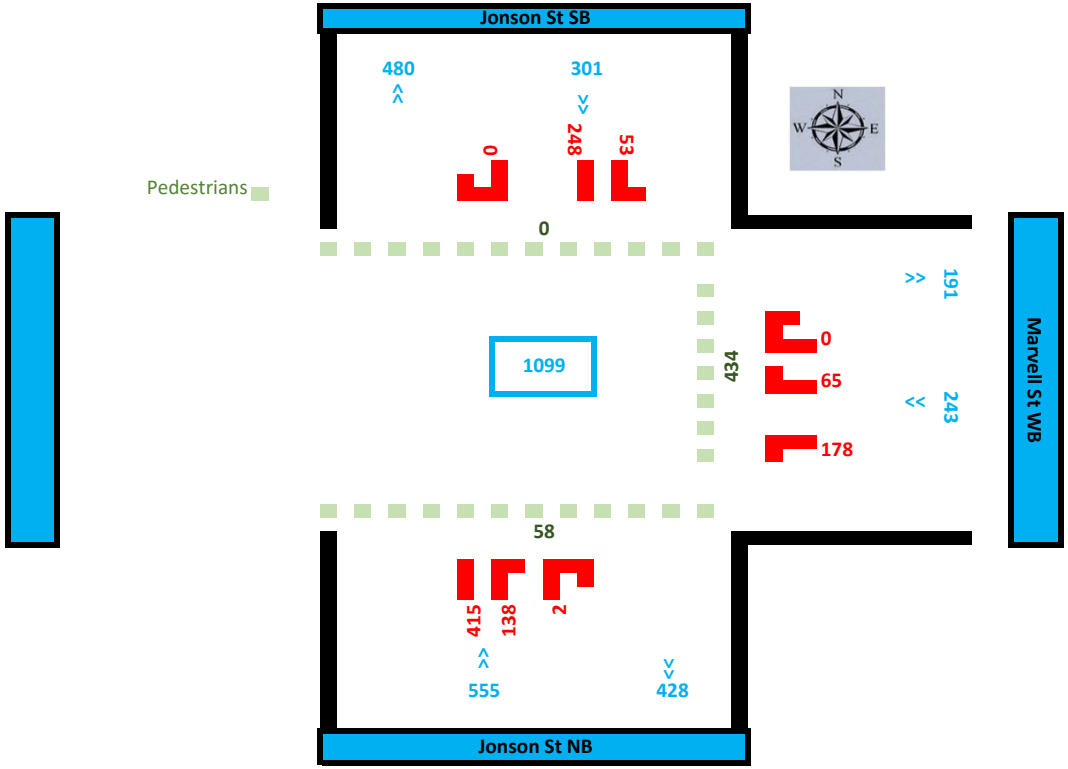
Turning Movement Count Summary

Site ID:	1
Location:	Jonson St & Marvell St, Byron Bay
Date:	13-Sept-2018
Surveyed Time:	3:00 PM to 6:00 PM
Weather:	Fine
Data for hour starting:	3:15 PM to 4:15 PM
Vehicle Class:	ALL VEHICLES



Turning Movement Count Summary

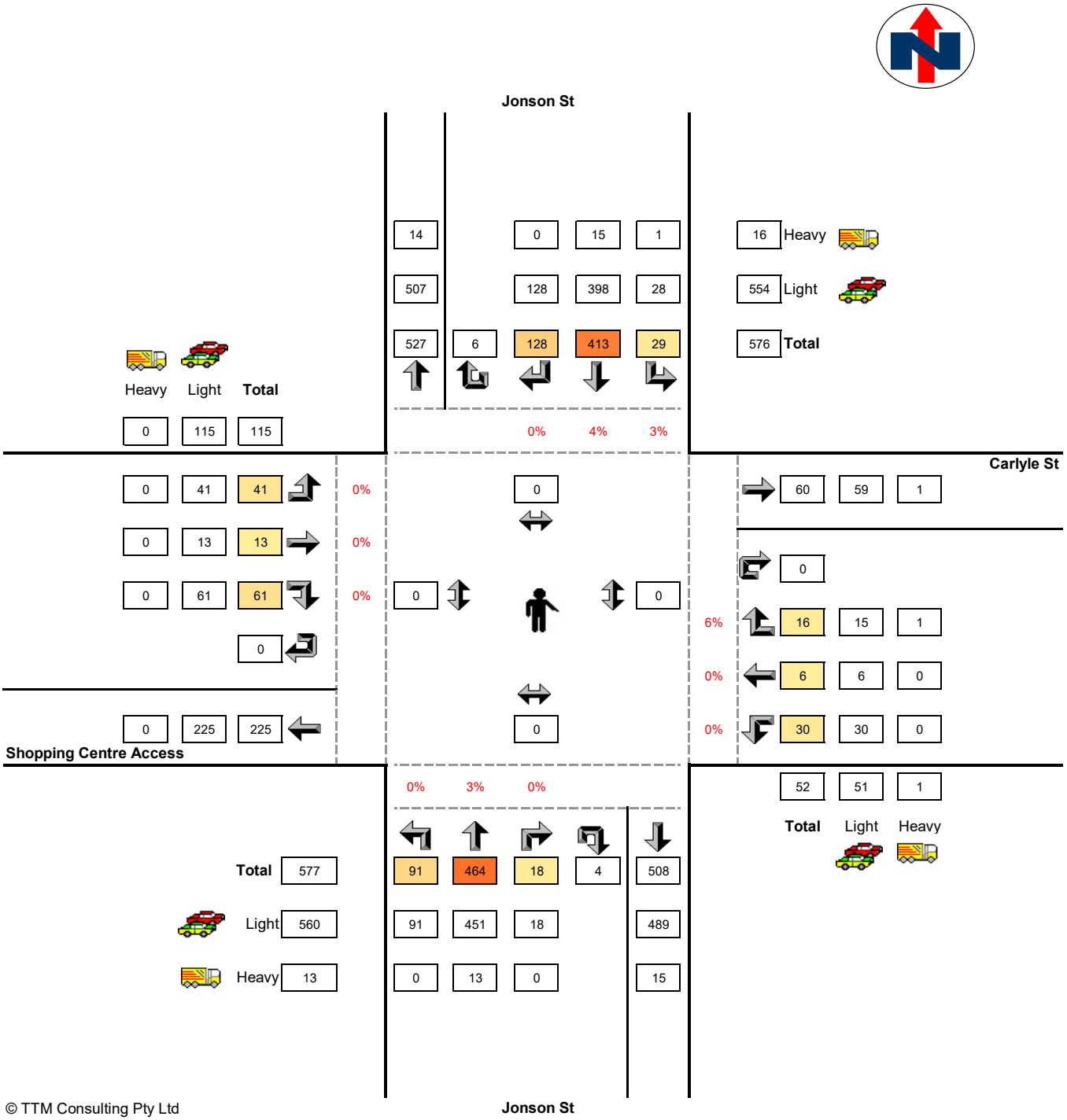
Site ID:	1
Location:	Jonson St & Marvell St, Byron Bay
Date:	15-Sept-2018
Surveyed Time:	10:00 AM to 1:00 PM
Weather:	Fine
Data for hour starting:	10:00 AM to 11:00 AM
Vehicle Class:	ALL VEHICLES



TTM Reference:	13GCT0058
Location:	Jonson St/ Carlyle St/ Shopping Centre Access
Suburb:	Byron Bay
Date:	Thurs 7.11.13
PM Peak	1630-1730
Weather:	Fine

www.ttmgroup.com.au

00% indicates the heavy vehicle percentage



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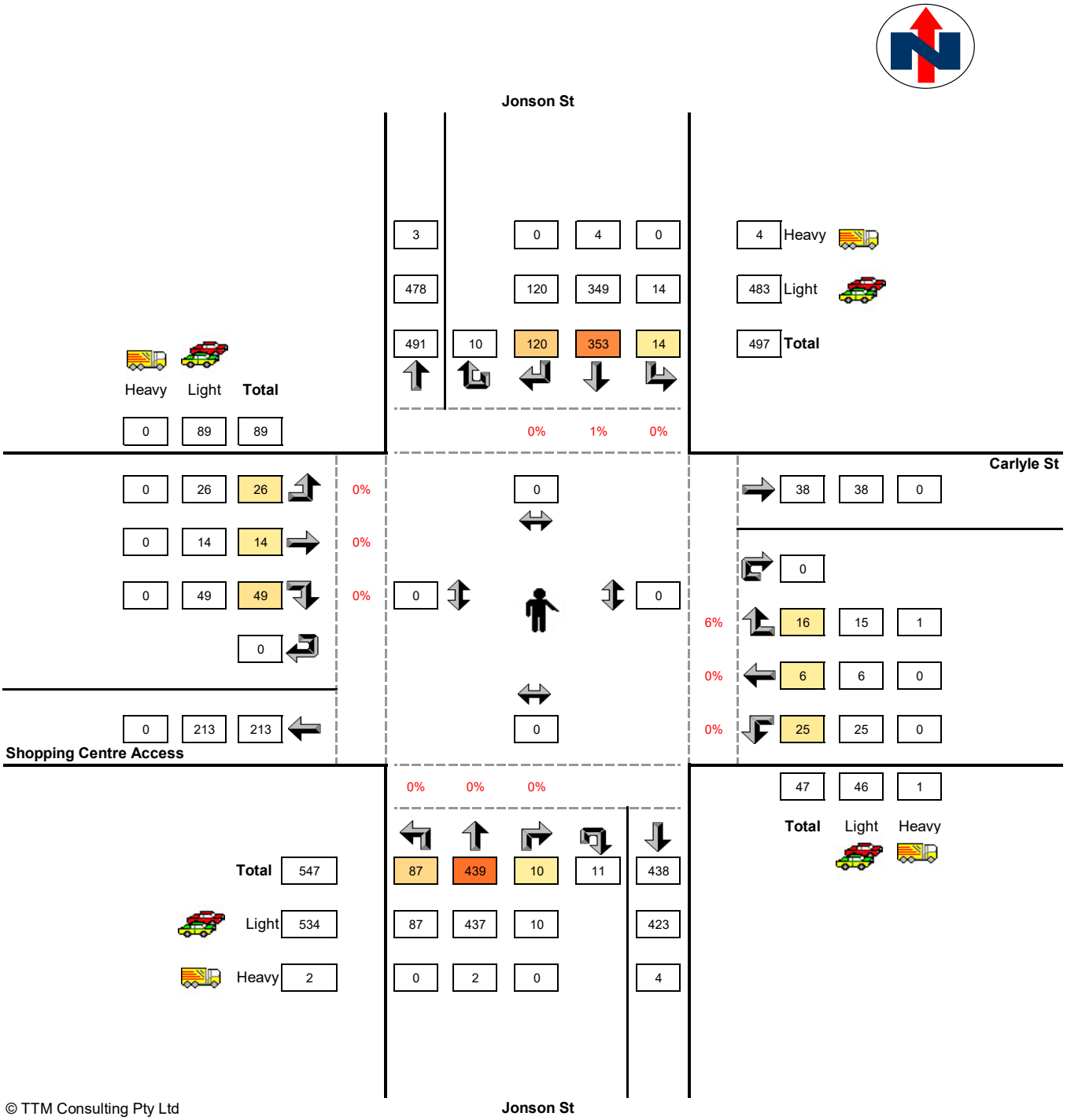
TTM Reference:	13GCT0058
Location:	Jonson St/ Carlyle St/ Shopping Centre Access
Suburb:	Byron Bay
Date:	Sat 9.11.13
PM Peak:	1245-1345
Weather:	Fine

www.ttmgroup.com.au

00% indicates the heavy vehicle percentage



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Byron Bay Automatic Count

Site Name - # 1 Jonson St
Description - 40m north of Kingsley St
Direction - Northbound

TDC
Traffic Data & Control

Friday, 21 June 2019

Time	Total	Cars	Light Trucks	Heavy Trucks	Average Speed	85th %ile
0000	6	6	0	0	34.3	-
0015	3	3	0	0	36.3	-
0030	5	5	0	0	36.9	-
0045	5	5	0	0	29.3	-
0100	8	8	0	0	38.2	-
0115	5	5	0	0	34.6	-
0130	4	4	0	0	29.6	-
0145	4	4	0	0	40.3	-
0200	3	3	0	0	42.4	-
0215	4	4	0	0	41	-
0230	4	4	0	0	38.7	-
0245	5	5	0	0	36.5	-
0300	4	4	0	0	42.7	-
0315	5	4	1	0	44.7	-
0330	2	2	0	0	42.9	-
0345	6	6	0	0	47	-
0400	3	2	1	0	38.5	-
0415	10	9	1	0	43.6	-
0430	12	9	3	0	42.3	49.9
0445	15	12	3	0	43.7	49.8
0500	14	11	3	0	44.8	50.2
0515	28	25	3	0	38.6	49.2
0530	30	28	2	0	41.2	46.2
0545	32	27	5	0	40.6	45.9
0600	33	31	2	0	36.3	44.6
0615	64	51	13	0	41.2	45.5
0630	65	52	12	1	39	43.9
0645	90	77	13	0	39.8	44.6
0700	79	71	7	1	37.3	43.9
0715	90	79	10	1	35.6	40.6
0730	103	98	5	0	36	41.1
0745	151	135	16	0	32.4	38.2
0800	140	126	12	2	34.2	39.4
0815	130	116	14	0	34.9	40.9
0830	151	131	20	0	33	38.3
0845	138	118	20	0	32.3	37.9
0900	135	120	15	0	29.6	36.1
0915	123	112	11	0	30.5	35
0930	128	115	13	0	31.4	36.5
0945	124	117	7	0	30.8	36.8
1000	114	95	19	0	27.1	33.8
1015	115	95	20	0	29.3	34.2
1030	108	98	10	0	30.5	38.3
1045	120	101	19	0	31.1	36.1
1100	99	82	17	0	32.6	39.6

1115	98	90	8	0	31.2	36.7
1130	115	101	14	0	30.4	37.5
1145	130	117	13	0	28.5	34.4
1200	116	104	11	1	25.5	31.3
1215	115	100	15	0	29.1	34.7
1230	128	115	13	0	28.4	35.8
1245	133	115	17	1	28.5	34
1300	122	109	13	0	26.7	32.7
1315	127	114	12	1	26.3	34.2
1330	136	112	24	0	26.4	33.7
1345	99	87	12	0	30.8	36.7
1400	132	123	8	1	26.7	33.7
1415	119	103	16	0	28.8	34.7
1430	130	115	15	0	27.5	34.4
1445	133	121	12	0	28.6	34.2
1500	117	106	11	0	28.1	35.9
1515	137	125	12	0	23.4	33.2
1530	135	122	12	1	24.3	32.3
1545	83	72	11	0	13.5	19
1600	104	94	10	0	28.2	35.5
1615	128	114	13	1	26.3	32.4
1630	104	95	9	0	28.7	34.2
1645	132	125	7	0	25.4	31.2
1700	110	100	10	0	27.5	33
1715	98	87	11	0	27	31.7
1730	116	106	9	1	26.5	33.2
1745	121	113	8	0	24.7	30.7
1800	99	90	9	0	24.5	30.6
1815	118	107	11	0	26.8	33.1
1830	101	90	11	0	27.1	32.9
1845	84	76	7	1	28.3	33.7
1900	69	64	5	0	29.1	35.8
1915	76	72	4	0	28.1	36.6
1930	80	74	6	0	29.5	35.5
1945	54	48	5	1	28.5	39.2
2000	51	46	5	0	30.1	36.6
2015	47	43	4	0	33.6	38.5
2030	54	49	5	0	29.8	36.7
2045	53	51	2	0	32.3	37.4
2100	39	37	2	0	32.3	41
2115	42	40	2	0	30.8	38.3
2130	57	53	4	0	31.9	37.3
2145	46	41	5	0	29.9	35.8
2200	43	42	1	0	33.6	39.4
2215	28	27	1	0	34.5	41.9
2230	38	37	1	0	31.4	38.2
2245	32	30	2	0	32.5	40.3
2300	28	26	2	0	37.2	45.5
2315	29	27	2	0	32.1	40.3
2330	16	16	0	0	36.4	43.1
2345	22	22	0	0	35.3	42.8
07-09	**982**	**874**	**104**	**4**	**34.1**	**40**
09-16	**3371**	**2986**	**380**	**5**	**28.1**	**35.1**
16-18	**913**	**834**	**77**	**2**	**26.7**	**32.9**
00-00	**7041**	**6308**	**719**	**14**	**29.9**	**37.6**

Byron Bay Automatic Count

Site Name - # 1 Jonson St
Description - 40m north of Kingsley St
Direction - Northbound

TDC
Traffic Data & Control

Saturday, 22 June 2019

Time	Total	Cars	Light Trucks	Heavy Trucks	Average Speed	85th %ile
0000	15	15	0	0	35.7	43.5
0015	13	12	1	0	38.1	46.9
0030	9	9	0	0	36.5	-
0045	11	10	1	0	33.8	39.3
0100	20	20	0	0	36.6	45.3
0115	9	8	1	0	42.1	-
0130	10	8	2	0	42	-
0145	16	15	1	0	31.4	43.2
0200	11	11	0	0	34	47
0215	6	6	0	0	45.2	-
0230	10	10	0	0	39.6	-
0245	2	2	0	0	52	-
0300	8	6	2	0	44	-
0315	10	10	0	0	41.1	-
0330	5	5	0	0	44.2	-
0345	11	10	1	0	43.6	50.1
0400	6	6	0	0	33.6	-
0415	8	6	2	0	42.8	-
0430	11	8	3	0	41.1	47.5
0445	5	4	1	0	42.4	-
0500	16	14	2	0	43.6	47.9
0515	8	8	0	0	45.8	-
0530	14	12	2	0	42.6	48.6
0545	16	15	1	0	45.2	50.9
0600	27	20	7	0	41.3	48.5
0615	28	22	6	0	42.2	49.9
0630	33	25	8	0	41.8	46.1
0645	57	53	4	0	39	43
0700	47	43	4	0	35.6	43.2
0715	60	54	4	2	39.4	44.1
0730	66	62	3	1	36.9	42.8
0745	92	81	11	0	35.5	42.1
0800	69	58	11	0	35.8	42.1
0815	80	75	4	1	36.7	43.1
0830	93	88	5	0	37.9	43.1
0845	132	118	14	0	32.5	40
0900	109	100	8	1	33.5	39.5
0915	117	106	11	0	30.6	35.7
0930	136	123	12	1	30.7	35.5
0945	130	118	12	0	32.2	37.4
1000	119	101	17	1	30.8	36.4
1015	126	117	7	2	28.9	34.4
1030	130	114	16	0	29.6	35.2
1045	119	108	10	1	28.6	34
1100	129	114	15	0	28.2	35.6

1115	125	117	8	0	28.4	34.4
1130	145	132	13	0	27.2	32.2
1145	126	116	10	0	30.6	36.5
1200	113	107	6	0	28.3	34.5
1215	136	120	15	1	27.3	34.6
1230	138	121	17	0	28.8	33.5
1245	132	119	13	0	28.7	34.4
1300	141	130	11	0	26.8	33.3
1315	129	120	9	0	26.1	31.5
1330	119	107	12	0	24.2	32.2
1345	109	100	9	0	26.1	31.9
1400	113	99	13	1	29.7	34.4
1415	116	107	9	0	28.1	34.2
1430	121	106	15	0	28.6	34.9
1445	120	107	13	0	27.4	33.5
1500	120	113	6	1	26.1	32.9
1515	117	106	9	2	26.1	32.6
1530	112	103	9	0	24.3	30.4
1545	108	96	12	0	24.7	31.1
1600	80	76	4	0	28.1	35.3
1615	91	80	11	0	27.9	34.2
1630	91	86	5	0	25.7	32.8
1645	131	111	20	0	24.4	31.9
1700	95	90	5	0	26.5	34.2
1715	114	102	11	1	26.1	31.8
1730	108	97	10	1	25	32.5
1745	115	107	8	0	24.2	30.7
1800	114	104	10	0	24.8	30.4
1815	94	87	7	0	26.2	31.1
1830	100	88	12	0	29	35.8
1845	88	80	8	0	27.7	33
1900	82	77	5	0	27.1	34
1915	92	87	5	0	30.2	35.8
1930	79	76	3	0	29	38.3
1945	64	60	4	0	29.6	34.7
2000	50	48	2	0	31.3	38.2
2015	65	60	5	0	28.4	35.8
2030	60	55	5	0	29	36.4
2045	58	56	2	0	29.3	36.6
2100	48	42	6	0	31	37.2
2115	41	40	1	0	33	40.4
2130	42	40	2	0	30.9	38.3
2145	26	25	1	0	34.1	39
2200	38	37	1	0	32.4	37.5
2215	35	32	3	0	30.5	37.6
2230	25	22	3	0	32.4	42.6
2245	23	22	1	0	35.1	44.6
2300	16	15	1	0	35.7	45.9
2315	27	24	3	0	32.5	38.5
2330	28	25	3	0	33.3	41.3
2345	16	15	1	0	32.1	42.2
07-09	**639**	**579**	**56**	**4**	**35.9**	**42.5**
09-16	**3455**	**3127**	**317**	**11**	**28.2**	**34.6**
16-18	**825**	**749**	**74**	**2**	**25.8**	**32.8**
00-00	**6625**	**6022**	**586**	**17**	**29.6**	**37.3**

Byron Bay Automatic Count

Site Name - # 1 Jonson St
Description - 40m north of Kingsley St
Direction - Southbound

TDC
Traffic Data & Control

Friday, 21 June 2019

Time	Total	Cars	Light Trucks	Heavy Trucks	Average Speed	85th %ile
0000	9	9	0	0	38.5	-
0015	7	7	0	0	39.5	-
0030	9	9	0	0	37.7	-
0045	11	11	0	0	38.4	47.1
0100	6	6	0	0	39.5	-
0115	6	6	0	0	37.5	-
0130	6	6	0	0	41.3	-
0145	5	3	2	0	37.2	-
0200	8	7	1	0	35.9	-
0215	5	5	0	0	44.2	-
0230	7	7	0	0	39.3	-
0245	1	1	0	0	29.8	-
0300	5	5	0	0	38.6	-
0315	2	1	1	0	33.9	-
0330	3	3	0	0	40.2	-
0345	1	1	0	0	39	-
0400	1	1	0	0	31.3	-
0415	7	7	0	0	46.3	-
0430	4	4	0	0	42.7	-
0445	5	5	0	0	44.8	-
0500	9	6	3	0	37.6	-
0515	9	6	3	0	35.3	-
0530	11	11	0	0	44.3	51.4
0545	17	15	2	0	44.9	49.9
0600	15	13	2	0	46.4	54.3
0615	28	26	2	0	40.4	45.1
0630	46	37	8	1	38.6	43.9
0645	65	58	5	2	40.3	44
0700	56	44	11	1	39.4	46.6
0715	57	49	8	0	33.1	37.9
0730	86	71	15	0	32.9	39.4
0745	80	64	15	1	33.1	40
0800	83	71	9	3	32.1	39.7
0815	88	78	9	1	35.1	41.5
0830	102	86	15	1	32.5	38.4
0845	106	92	14	0	31.3	38.3
0900	99	85	14	0	31	37.3
0915	122	114	8	0	28.9	36.3
0930	107	104	3	0	30.7	38.6
0945	133	123	10	0	29.4	36
1000	100	88	11	1	28.9	35.3

1015	112	104	8	0	29.3	37.3
1030	109	96	13	0	27.6	36.6
1045	106	99	7	0	30	38.7
1100	102	90	12	0	29.5	38.3
1115	96	87	8	1	27.6	35.8
1130	109	107	2	0	29.8	37.3
1145	120	117	3	0	26.3	33.3
1200	129	120	9	0	26.4	34.8
1215	114	104	9	1	28.6	36.2
1230	111	97	14	0	25.3	32.8
1245	112	100	12	0	25.8	34.2
1300	126	118	8	0	24.3	33.1
1315	122	116	6	0	27.1	34.5
1330	121	118	3	0	27.8	34
1345	119	112	7	0	26.9	35.3
1400	113	101	12	0	25.7	32
1415	121	114	7	0	26.5	33.8
1430	121	114	7	0	24.5	31.5
1445	130	121	9	0	24.6	32.8
1500	129	118	10	1	25.5	32.5
1515	160	150	8	2	22	30.7
1530	137	126	11	0	24.9	31.7
1545	162	144	17	1	24.3	30.3
1600	145	140	5	0	28	35.7
1615	130	124	6	0	23	30.4
1630	153	147	6	0	20	26.4
1645	128	119	9	0	24.7	31.4
1700	150	144	6	0	24.9	32.9
1715	158	148	10	0	24.3	31
1730	133	124	8	1	22.6	28.8
1745	127	120	7	0	21.1	28.9
1800	130	127	3	0	24.1	31
1815	106	99	7	0	27.4	33.8
1830	107	104	3	0	25.3	32.4
1845	100	98	2	0	28.5	35.8
1900	81	76	5	0	25.9	32.5
1915	81	75	6	0	27.3	35.5
1930	89	84	5	0	24.8	31.4
1945	63	61	2	0	27.2	34.8
2000	76	73	3	0	29.2	36.3
2015	57	55	2	0	29	38.9
2030	72	69	3	0	26.1	33.9
2045	50	48	2	0	28.7	34.4
2100	59	55	4	0	30.6	40.1
2115	48	46	2	0	25.9	33.4
2130	69	68	1	0	29.3	34.6
2145	55	54	1	0	29	32.4
2200	67	65	2	0	33.5	39.2
2215	46	45	1	0	32	35.8
2230	56	52	4	0	30.7	37.2
2245	50	50	0	0	28.3	33.1
2300	47	47	0	0	29.2	36.3
2315	40	38	2	0	30.5	37.1
2330	36	36	0	0	34.5	43.2
2345	29	29	0	0	36.6	43.6

07-09	**658**	**555**	**96**	**7**	**33.4**	**40.5**
09-16	**3342**	**3087**	**248**	**7**	**26.9**	**34.7**
16-18	**1124**	**1066**	**57**	**1**	**23.6**	**31**
00-00	**7046**	**6538**	**490**	**18**	**27.9**	**36.4**

Byron Bay Automatic Count

Site Name - # 1 Jonson St
Description - 40m north of Kingsley St
Direction - Southbound

TDC
Traffic Data & Control

Saturday, 22 June 2019

Time	Total	Cars	Light Trucks	Heavy Trucks	Average Speed	85th %ile
0000	35	34	1	0	35.9	44.4
0015	21	19	2	0	37.4	43.8
0030	22	22	0	0	39.6	45.2
0045	24	23	1	0	38.6	49.6
0100	19	18	1	0	39.2	45.4
0115	14	13	1	0	36.9	47.8
0130	9	9	0	0	41.1	-
0145	22	20	2	0	39.3	47.1
0200	14	14	0	0	42.5	49.4
0215	6	6	0	0	43.6	-
0230	12	12	0	0	44.2	54.2
0245	3	2	1	0	37.6	-
0300	10	9	1	0	47.1	-
0315	8	7	1	0	42	-
0330	3	3	0	0	48.9	-
0345	5	5	0	0	42.6	-
0400	9	9	0	0	37.8	-
0415	6	6	0	0	43.8	-
0430	5	4	1	0	44.2	-
0445	4	2	2	0	31.8	-
0500	7	6	1	0	43.9	-
0515	4	3	1	0	36.6	-
0530	16	15	1	0	38	42.7
0545	14	12	2	0	44.8	51.8
0600	13	11	2	0	42.6	52.9
0615	19	15	4	0	41.9	49
0630	20	17	3	0	41.1	47.9
0645	32	30	2	0	41.5	49.2
0700	37	34	3	0	34.8	44.4
0715	31	28	3	0	36.7	46.9
0730	39	38	1	0	36.1	42.3
0745	66	59	6	1	33.8	39.8
0800	57	51	5	1	36.7	43.4
0815	76	69	7	0	32.9	41.1
0830	90	84	6	0	32.1	38.8
0845	105	94	10	1	33.6	40.9
0900	108	102	6	0	31.6	37.3
0915	80	73	7	0	31.5	37.8
0930	129	124	5	0	29.6	36.5
0945	97	90	7	0	32.2	39.1
1000	127	115	12	0	28.6	34.9
1015	113	104	9	0	28.3	35.8
1030	123	117	6	0	28.9	35.3
1045	120	110	10	0	25.9	35.5
1100	120	110	10	0	25.6	33.2

1115	127	118	9	0	28.6	36.7
1130	113	109	4	0	26.4	34.5
1145	104	96	8	0	26.3	34.7
1200	108	102	5	1	28.3	37.2
1215	118	114	4	0	26.3	35.6
1230	124	116	7	1	28.2	35.1
1245	111	104	7	0	28.6	36.6
1300	123	117	6	0	24	30.4
1315	117	111	6	0	25.8	32.8
1330	126	117	9	0	24.6	31.3
1345	118	112	6	0	24.5	31.9
1400	104	97	7	0	25.7	33.8
1415	103	93	9	1	26.3	33.8
1430	120	115	5	0	25.3	31.8
1445	104	100	1	3	26.2	33.3
1500	113	112	1	0	24.8	33.3
1515	119	114	4	1	25	31.5
1530	119	110	8	1	24.8	31
1545	122	115	7	0	21.6	29.8
1600	112	110	2	0	25.3	30.8
1615	118	116	2	0	22.9	29.6
1630	92	87	4	1	25.3	31.9
1645	119	117	2	0	25	32
1700	118	114	4	0	23.5	30.7
1715	128	125	3	0	25	31.4
1730	114	109	5	0	24	31.1
1745	123	120	3	0	21.3	25.9
1800	134	127	7	0	20.9	28.4
1815	110	106	4	0	22.9	31.8
1830	91	84	7	0	26.3	32.1
1845	79	78	1	0	26.4	34.6
1900	74	71	3	0	26.1	32.2
1915	89	87	2	0	23.8	31.3
1930	75	73	1	1	27.3	33.5
1945	67	65	2	0	27.3	33.1
2000	58	54	4	0	28.7	37.4
2015	66	65	1	0	27.7	35.3
2030	76	75	1	0	27.8	35.9
2045	56	56	0	0	28.6	33.9
2100	71	67	3	1	26.2	31
2115	56	52	4	0	27.9	36.2
2130	50	48	2	0	29.5	35.4
2145	59	58	1	0	32.2	38.9
2200	60	55	5	0	33.7	38.4
2215	52	49	3	0	32.9	42.1
2230	66	61	5	0	31	36.9
2245	57	54	3	0	29.9	37.7
2300	41	39	2	0	29.1	35.8
2315	45	43	2	0	35.1	43.7
2330	38	36	2	0	31.8	37.6
2345	29	27	2	0	37.4	44.2
07-09	**501**	**457**	**41**	**3**	**34.1**	**41**
09-16	**3210**	**3017**	**185**	**8**	**26.8**	**34.4**
16-18	**924**	**898**	**25**	**1**	**24**	**30.4**
00-00	**6610**	**6248**	**348**	**14**	**28**	**36.4**

Byron Bay Automatic Count

Site Name - #2 Jonson St
Description - 25m north of Carlyle St
Direction - Northbound

TDC
Traffic Data & Control

Friday, 21 June 2019

Time	Total	Cars	Light Trucks	Heavy Trucks	Average Speed	85th %ile
0000	11	11	0	0	26.9	28.9
0015	4	4	0	0	37	-
0030	9	9	0	0	28.9	-
0045	7	7	0	0	30.1	-
0100	9	9	0	0	31.4	-
0115	7	7	0	0	27.7	-
0130	6	5	1	0	26.9	-
0145	6	6	0	0	32.3	-
0200	6	6	0	0	29	-
0215	5	5	0	0	35.9	-
0230	7	7	0	0	24.7	-
0245	6	6	0	0	26.4	-
0300	4	4	0	0	35.9	-
0315	7	7	0	0	33.3	-
0330	1	1	0	0	29	-
0345	10	10	0	0	32.6	-
0400	4	3	1	0	31.7	-
0415	8	7	1	0	35.4	-
0430	9	7	2	0	33.7	-
0445	17	14	3	0	35.3	43.3
0500	16	11	4	1	35.1	44.4
0515	27	24	3	0	33.8	41.7
0530	34	29	5	0	33.4	39
0545	39	34	5	0	32.7	38.3
0600	34	32	2	0	29.5	35
0615	70	57	13	0	31.3	36.1
0630	66	54	12	0	30.3	35.2
0645	96	87	9	0	32	36.7
0700	76	70	5	1	33.1	38.9
0715	87	79	8	0	30.6	34.6
0730	106	96	10	0	29.9	34.6
0745	137	121	16	0	27.7	33.5
0800	142	126	16	0	26.9	31.8
0815	135	122	12	1	28.1	34.1
0830	154	134	20	0	25	30
0845	131	113	18	0	24	30.1
0900	147	132	14	1	22.9	28.4
0915	133	127	6	0	24.5	30.6
0930	141	127	14	0	22.3	29.2
0945	143	132	11	0	21.7	29.3
1000	113	98	15	0	24	29.1

1015	110	96	14	0	22.9	28.9
1030	113	104	8	1	21.8	28.4
1045	122	106	15	1	21.4	30.1
1100	115	103	12	0	23.9	31.1
1115	111	106	5	0	23.7	28.3
1130	118	105	13	0	22.2	29.2
1145	122	113	9	0	21.3	28.6
1200	133	123	9	1	19.4	27.9
1215	134	120	14	0	20.7	26.6
1230	121	114	7	0	20.7	29.5
1245	141	127	14	0	19.4	26.1
1300	137	123	14	0	20.4	27.8
1315	146	126	19	1	20.2	27.9
1330	152	128	23	1	17.6	23.8
1345	115	102	12	1	22.2	29.3
1400	125	111	13	1	21.6	28.3
1415	131	118	13	0	18.9	24.9
1430	134	125	8	1	20.1	25.9
1445	138	132	5	1	22.9	28.8
1500	105	99	6	0	22.6	27.9
1515	148	140	8	0	20.7	27
1530	100	84	16	0	13.4	17.1
1545	92	84	8	0	10.7	13.9
1600	124	120	4	0	20.4	29.7
1615	133	121	11	1	19.8	24.4
1630	126	114	12	0	20.4	26.4
1645	141	130	11	0	19.5	26.8
1700	116	103	12	1	18.8	25.9
1715	129	122	7	0	19	25.1
1730	130	121	9	0	21.2	27.9
1745	119	109	10	0	19.8	27.5
1800	117	105	12	0	21.1	27.5
1815	131	124	7	0	20.9	27.3
1830	106	93	13	0	20.8	28.1
1845	87	84	3	0	22.1	28.9
1900	89	82	7	0	23.3	28.9
1915	92	88	4	0	23.5	28.4
1930	90	86	3	1	23	29.9
1945	79	71	8	0	24.5	29.2
2000	71	65	6	0	24.6	31.6
2015	61	59	2	0	28.3	33.8
2030	70	64	6	0	24.9	30.1
2045	66	65	1	0	24.9	29.2
2100	57	54	3	0	24.2	29.6
2115	52	49	3	0	26.5	31.3
2130	69	65	4	0	24.3	31.2
2145	43	40	3	0	27.9	33.1
2200	56	52	4	0	27.8	33.1
2215	36	35	1	0	27.4	34
2230	48	44	4	0	25	31.5
2245	34	32	2	0	28	34.3
2300	35	33	2	0	28.2	35.4
2315	34	32	2	0	26.7	32.3
2330	25	25	0	0	29.3	36.4
2345	34	31	3	0	29.4	36.7

07-09	**968**	**861**	**105**	**2**	**27.6**	**33.6**
09-16	**3540**	**3205**	**325**	**10**	**20.9**	**28.3**
16-18	**1018**	**940**	**76**	**2**	**19.9**	**26.8**
00-00	**7633**	**6947**	**670**	**16**	**23.1**	**30.6**

Byron Bay Automatic Count

Site Name - #2 Jonson St
Description - 25m north of Carlyle St
Direction - Northbound

TDC
Traffic Data & Control

Saturday, 22 June 2019

Time	Total	Cars	Light Trucks	Heavy Trucks	Average Speed	85th %ile
0000	21	21	0	0	29.4	35.4
0015	15	14	1	0	30.6	36.3
0030	12	12	0	0	30.7	34.4
0045	13	12	1	0	27.1	31.6
0100	21	20	1	0	28.3	37.2
0115	13	12	1	0	31.5	38.7
0130	17	15	2	0	33.6	41.3
0145	19	19	0	0	26.3	30.8
0200	17	16	1	0	30.6	34.5
0215	10	9	1	0	30.5	-
0230	12	12	0	0	25.5	33.9
0245	2	2	0	0	34.2	-
0300	12	11	1	0	32.9	40.4
0315	12	12	0	0	30.8	39.2
0330	3	3	0	0	37.8	-
0345	13	13	0	0	33.4	42
0400	7	7	0	0	33	-
0415	8	4	4	0	33.2	-
0430	16	13	2	1	28.6	34
0445	6	5	1	0	29.8	-
0500	14	11	3	0	37.4	47.7
0515	10	10	0	0	36.3	-
0530	16	12	4	0	31.1	39.4
0545	20	19	1	0	37.8	43.5
0600	27	21	6	0	34.4	41.8
0615	33	29	4	0	34.1	41.1
0630	42	35	7	0	31.9	37
0645	56	48	8	0	30.1	34.7
0700	42	38	3	1	32.1	37.1
0715	69	62	5	2	33.3	39.7
0730	65	63	2	0	29.9	36.1
0745	95	82	13	0	28.3	34.9
0800	65	57	8	0	30.7	36.9
0815	90	83	7	0	30.4	35.9
0830	94	88	6	0	30.1	34.4
0845	136	129	7	0	26.8	31.9
0900	124	118	6	0	26.1	32.8
0915	121	112	8	1	23.7	30.4
0930	147	132	14	1	22.5	27.9
0945	135	128	7	0	22.6	29.6
1000	118	106	12	0	20.3	27.4
1015	126	119	7	0	22.1	30.2
1030	147	132	14	1	21.6	28
1045	126	116	9	1	22	28.1
1100	133	122	11	0	20.1	26.9

1115	127	114	13	0	20.7	27.4
1130	136	129	7	0	21.6	29.5
1145	135	123	12	0	20.2	28.8
1200	119	117	2	0	21.9	27.4
1215	137	126	11	0	17.5	24.7
1230	135	127	8	0	17	23.6
1245	140	130	10	0	20.3	27.3
1300	150	140	9	1	17.5	24.8
1315	127	120	7	0	18.4	24.8
1330	121	111	10	0	19.2	26.9
1345	117	108	9	0	21.4	28.5
1400	116	109	7	0	23.4	28.5
1415	128	120	8	0	20.7	28
1430	126	115	11	0	18.6	24.7
1445	134	126	7	1	20.7	26.5
1500	129	120	9	0	19.7	25.9
1515	131	120	10	1	19.6	24.5
1530	97	90	7	0	21.6	29.1
1545	133	126	7	0	19.6	26.3
1600	96	93	3	0	20.4	26.3
1615	116	109	7	0	22	27.1
1630	106	100	5	1	18.3	24.7
1645	143	129	14	0	19	26.2
1700	101	97	4	0	20.3	26.9
1715	130	120	10	0	19.8	25.6
1730	119	112	6	1	20.5	24.1
1745	134	122	12	0	19.7	24.7
1800	117	109	8	0	21.7	26.3
1815	110	104	6	0	20.6	27.1
1830	109	104	5	0	24.1	29.3
1845	97	89	7	1	23.2	28.4
1900	87	79	8	0	21	26.6
1915	98	93	5	0	22.9	28.6
1930	92	84	8	0	23.4	29.2
1945	95	90	5	0	23.6	28.6
2000	52	51	1	0	27	32.5
2015	61	54	7	0	26.2	31.3
2030	85	81	4	0	25.5	29.9
2045	55	54	1	0	24.5	30.2
2100	73	68	5	0	24.1	30
2115	46	44	2	0	26.7	31.8
2130	45	44	1	0	28.8	34.7
2145	36	36	0	0	28.1	32.2
2200	48	47	1	0	25.8	30
2215	47	46	1	0	25.4	32
2230	34	33	1	0	26.4	32.9
2245	42	39	3	0	26	34.5
2300	26	25	1	0	27.5	35.4
2315	34	31	3	0	27.5	33.4
2330	34	32	2	0	27.6	32.2
2345	17	16	1	0	25.4	36.8
07-09	**656**	**602**	**51**	**3**	**29.7**	**35.7**
09-16	**3615**	**3356**	**252**	**7**	**20.7**	**27.5**
16-18	**945**	**882**	**61**	**2**	**20**	**25.6**
00-00	**7223**	**6710**	**499**	**14**	**22.9**	**30.2**

Byron Bay Automatic Count

Site Name - #2 Jonson St
Description - 25m north of Carlyle St
Direction - Southbound

TDC
Traffic Data & Control

Friday, 21 June 2019

Time	Total	Cars	Light Trucks	Heavy Trucks	Average Speed	85th %ile
0000	8	8	0	0	31.8	-
0015	8	8	0	0	33.8	-
0030	12	12	0	0	30.1	38.2
0045	13	13	0	0	33.5	38.1
0100	8	8	0	0	30.1	-
0115	7	7	0	0	32.2	-
0130	7	7	0	0	37.5	-
0145	7	6	1	0	34.3	-
0200	9	8	0	1	31.4	-
0215	6	6	0	0	34	-
0230	12	11	1	0	31.2	33.8
0245	2	2	0	0	24.4	-
0300	6	5	1	0	30.8	-
0315	2	2	0	0	30.9	-
0330	2	2	0	0	33.4	-
0345	2	2	0	0	29.6	-
0400	2	2	0	0	27.3	-
0415	7	7	0	0	38.4	-
0430	5	4	1	0	30.7	-
0445	5	5	0	0	40.4	-
0500	9	5	4	0	28.2	-
0515	9	8	1	0	32.6	-
0530	10	9	1	0	35.1	-
0545	22	20	2	0	33.4	42.6
0600	18	16	2	0	32.5	39.2
0615	38	29	9	0	32.1	36.9
0630	55	48	7	0	30.2	34.7
0645	65	55	10	0	31.7	36.6
0700	53	46	7	0	32.3	37.1
0715	64	58	6	0	31.2	35
0730	81	68	13	0	30.7	37
0745	81	76	5	0	30.2	34.9
0800	89	80	8	1	30.4	34.8
0815	89	83	6	0	30.7	35.1
0830	121	112	8	1	28.4	33.8
0845	116	107	9	0	27.6	32.5
0900	102	89	12	1	27.2	30.9
0915	125	120	5	0	27.8	32.4
0930	133	125	8	0	27.7	31.7
0945	144	138	6	0	28.3	32.4
1000	116	106	10	0	26.3	30.5

1015	119	114	5	0	27.7	32
1030	120	111	9	0	27.6	31.9
1045	112	102	10	0	27.6	32.6
1100	124	115	9	0	27.3	32.1
1115	102	97	5	0	27	32.4
1130	111	106	5	0	28.7	33.2
1145	125	122	3	0	25.8	30.8
1200	133	123	10	0	25.5	30.1
1215	123	116	5	2	25.8	30
1230	122	115	7	0	23.4	27.6
1245	126	115	11	0	26.8	30.6
1300	140	130	10	0	26.6	30.8
1315	127	122	5	0	27	31.1
1330	125	119	6	0	26.6	31.4
1345	131	125	6	0	27.2	31.3
1400	128	120	8	0	27.8	32.4
1415	135	132	3	0	26.1	30.8
1430	129	119	10	0	27.1	31.6
1445	128	118	10	0	27.3	31.9
1500	141	130	11	0	25.6	29.2
1515	153	137	15	1	25.5	30.1
1530	167	158	8	1	23.9	29.3
1545	142	128	14	0	24.3	28.5
1600	132	126	6	0	26.4	30.1
1615	119	115	4	0	26.6	30.1
1630	150	145	4	1	25.3	28.9
1645	144	131	13	0	26.1	30.2
1700	149	143	6	0	25.8	30.5
1715	151	144	7	0	25.4	31
1730	147	145	2	0	25.1	29.5
1745	139	131	8	0	25.4	31.1
1800	131	127	4	0	26.1	30.8
1815	105	102	2	1	27.7	31.5
1830	94	90	4	0	28.5	32.5
1845	101	97	4	0	28.1	33.6
1900	82	78	4	0	28.2	33.8
1915	93	91	2	0	27.5	31.3
1930	86	83	3	0	27.9	33.1
1945	69	67	2	0	29.4	33.9
2000	74	70	4	0	28.3	32
2015	62	60	2	0	29	34.5
2030	72	66	6	0	29.1	34.9
2045	48	45	3	0	28.6	35.8
2100	57	55	2	0	29.8	34.1
2115	50	49	1	0	28.7	34.2
2130	62	60	2	0	29.2	33.5
2145	49	47	2	0	30.3	33.9
2200	51	48	3	0	30.6	36.2
2215	39	38	1	0	29.1	33.8
2230	47	46	1	0	28.8	32.9
2245	37	36	1	0	28.7	35.5
2300	37	35	2	0	30.7	38
2315	31	28	3	0	29.8	36.9
2330	29	28	1	0	31.5	35.4
2345	24	23	1	0	33	38.8

07-09	**694**	**630**	**62**	**2**	**29.9**	**34.9**
09-16	**3583**	**3352**	**226**	**5**	**26.6**	**31.1**
16-18	**1131**	**1080**	**50**	**1**	**25.7**	**30.1**
00-00	**7294**	**6846**	**438**	**10**	**27.4**	**32.4**

Byron Bay Automatic Count

Site Name - #2 Jonson St
Description - 25m north of Carlyle St
Direction - Southbound

TDC
Traffic Data & Control

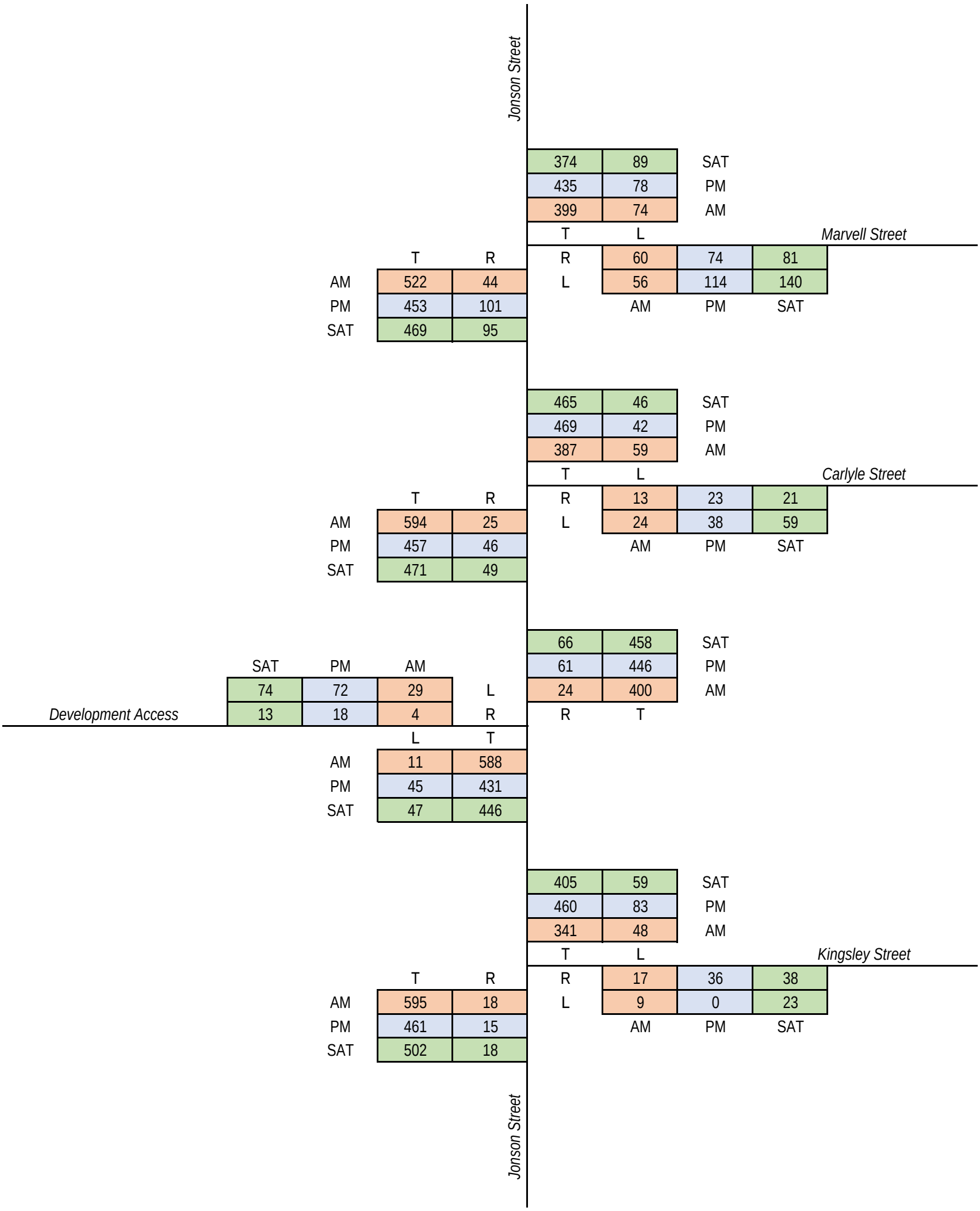
Saturday, 22 June 2019

Time	Total	Cars	Light Trucks	Heavy Trucks	Average Speed	85th %ile
0000	31	29	2	0	31.7	38.8
0015	20	18	2	0	30.7	36.4
0030	24	24	0	0	31	40.2
0045	24	22	2	0	33.3	39.8
0100	19	18	1	0	34.1	42.3
0115	18	18	0	0	33.8	41.2
0130	14	14	0	0	32.7	42.4
0145	20	16	4	0	34.1	41.3
0200	16	16	0	0	35	41
0215	10	10	0	0	32.4	-
0230	15	13	2	0	32	38
0245	3	3	0	0	31.6	-
0300	12	11	1	0	30.9	43.9
0315	10	10	0	0	35	-
0330	3	3	0	0	41	-
0345	5	5	0	0	38	-
0400	12	11	1	0	38	43.2
0415	5	4	1	0	29.7	-
0430	6	5	1	0	33.9	-
0445	5	3	2	0	28.6	-
0500	5	5	0	0	42.3	-
0515	7	5	2	0	29.7	-
0530	16	14	2	0	32.5	37
0545	15	13	2	0	36.1	44.7
0600	17	13	4	0	35.9	43.8
0615	21	17	4	0	33.9	41.1
0630	25	22	3	0	32.1	36.6
0645	38	36	2	0	32.5	37.6
0700	40	38	2	0	31.6	37.1
0715	32	28	4	0	32.5	37.8
0730	50	46	4	0	29.8	36.1
0745	70	65	5	0	30.9	35.9
0800	54	50	4	0	31.1	37.6
0815	82	75	7	0	31.2	35.5
0830	85	79	6	0	31.3	36.4
0845	103	96	7	0	30.4	35.2
0900	110	107	3	0	29.5	33
0915	92	87	5	0	28.8	32.6
0930	146	139	7	0	27.2	31
0945	91	86	5	0	28.6	34.2
1000	142	131	11	0	26.1	30.2
1015	123	116	7	0	26.4	30.6
1030	141	137	4	0	26.7	31.3
1045	142	134	8	0	26.1	30.9
1100	132	124	7	1	24.4	29.7

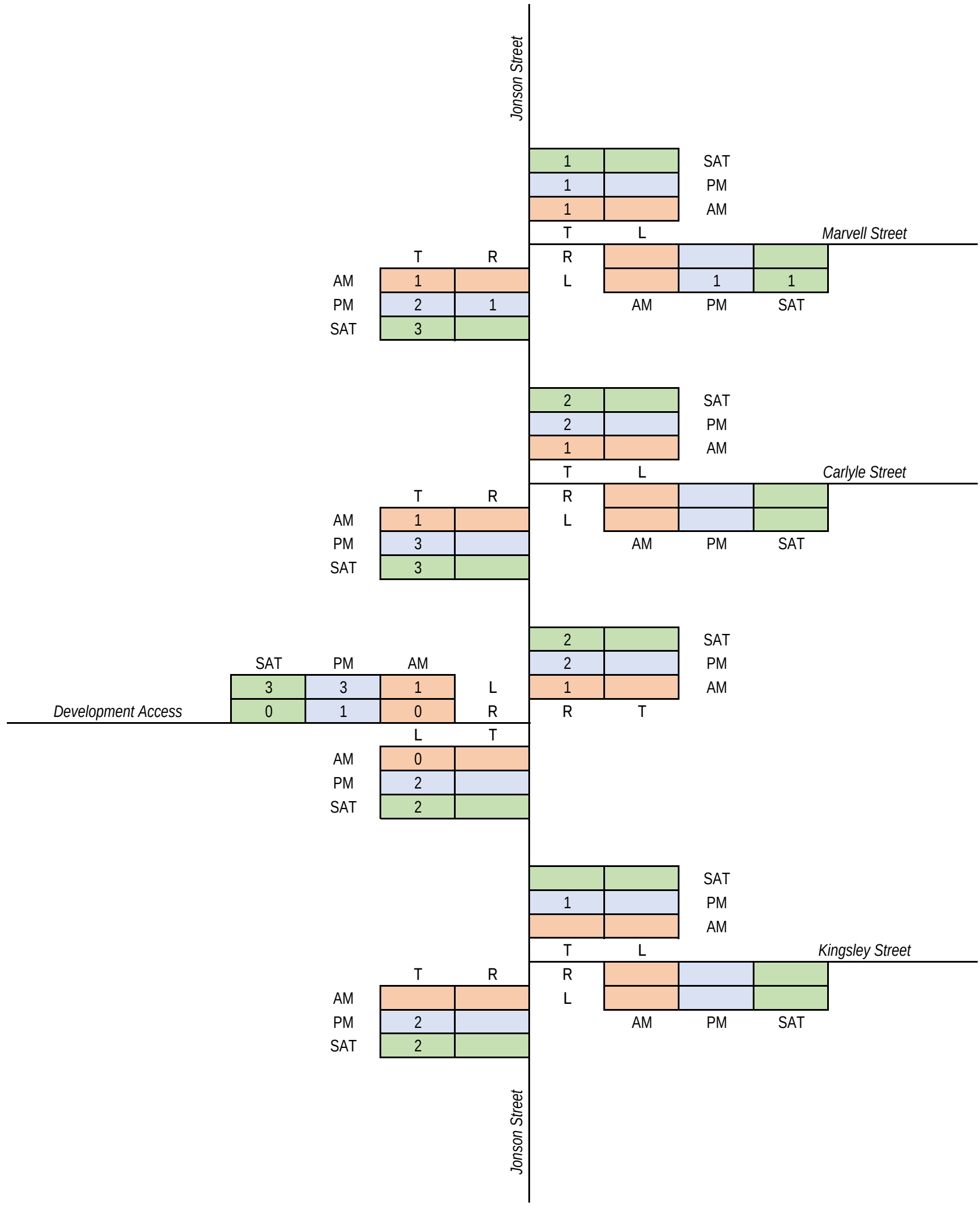
1115	126	120	6	0	26.7	31.1
1130	116	113	3	0	26.9	31.1
1145	105	100	5	0	27.7	31.5
1200	114	113	1	0	27.2	32.2
1215	140	135	5	0	26.2	30.2
1230	122	116	6	0	26.8	31.6
1245	132	131	1	0	25.4	30.1
1300	145	139	6	0	25.6	30.5
1315	118	113	5	0	26.9	31.3
1330	134	125	9	0	24.9	29.6
1345	125	124	1	0	26	30.6
1400	119	116	3	0	27.6	32.4
1415	101	96	5	0	26.1	30.1
1430	119	115	4	0	25.8	30.8
1445	117	113	4	0	27	32.2
1500	116	113	3	0	25.5	29.5
1515	125	120	5	0	24.9	29
1530	128	121	7	0	25.1	29.8
1545	119	110	9	0	26	29.7
1600	120	117	3	0	27.7	32
1615	114	111	3	0	26	29.7
1630	94	91	2	1	25.7	30.1
1645	123	118	4	1	26.4	30
1700	117	113	4	0	26.5	30.7
1715	139	134	5	0	26.8	31.9
1730	114	110	4	0	26.3	30.9
1745	119	115	4	0	27.4	31.5
1800	125	119	6	0	27.1	30.8
1815	99	94	5	0	27.2	31.7
1830	79	77	2	0	27.9	31.7
1845	78	77	1	0	28	32.7
1900	68	61	6	1	27	31.7
1915	79	77	2	0	28.7	32.8
1930	62	61	1	0	29.2	33.6
1945	70	69	1	0	28.3	34.6
2000	60	58	2	0	27.1	33.2
2015	46	45	1	0	29.6	33.7
2030	67	66	1	0	28.9	33.6
2045	43	40	3	0	27.8	32.4
2100	61	57	4	0	28.1	32.3
2115	48	48	0	0	29.9	36.6
2130	51	48	3	0	30	34.6
2145	45	45	0	0	29.6	34.2
2200	53	50	3	0	30.2	35.3
2215	51	51	0	0	30	34.2
2230	56	53	3	0	28.1	34.3
2245	47	45	2	0	29.2	32.7
2300	42	40	2	0	29.7	36
2315	34	34	0	0	31	37.3
2330	34	34	0	0	31.5	37.4
2345	26	25	1	0	32.9	40.1
07-09	**516**	**477**	**39**	**0**	**31**	**36.2**
09-16	**3440**	**3294**	**145**	**1**	**26.4**	**31**
16-18	**940**	**909**	**29**	**2**	**26.6**	**31**
00-00	**6736**	**6432**	**300**	**4**	**27.7**	**32.8**

APPENDIX C

TRAFFIC VOLUMES

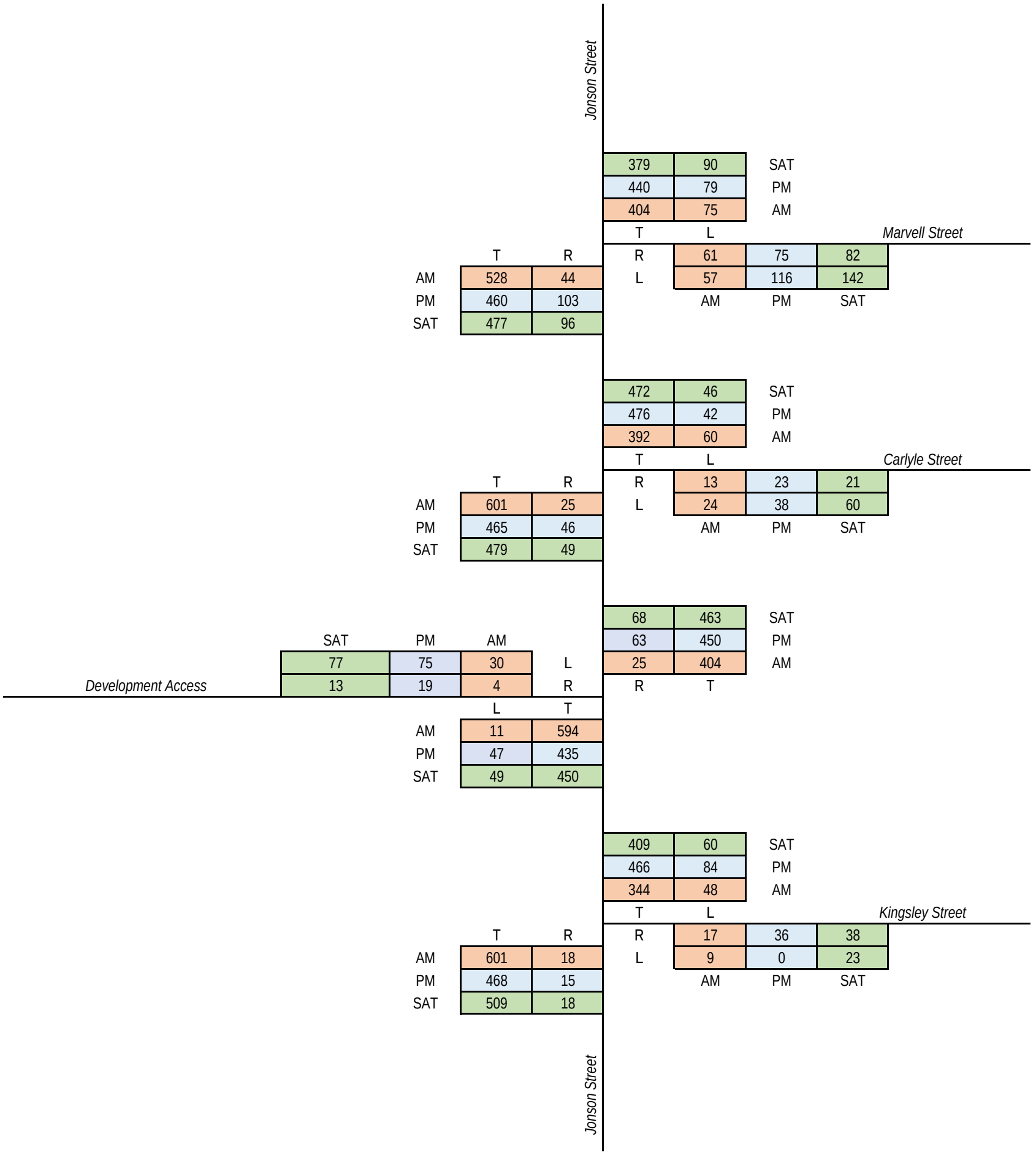


BITZIOS consulting — traffic engineering • transport planning	Sheet Name: 2019 Surveyed Traffic Volumes	Version: 003	Sheet Number: 1 of 13
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019



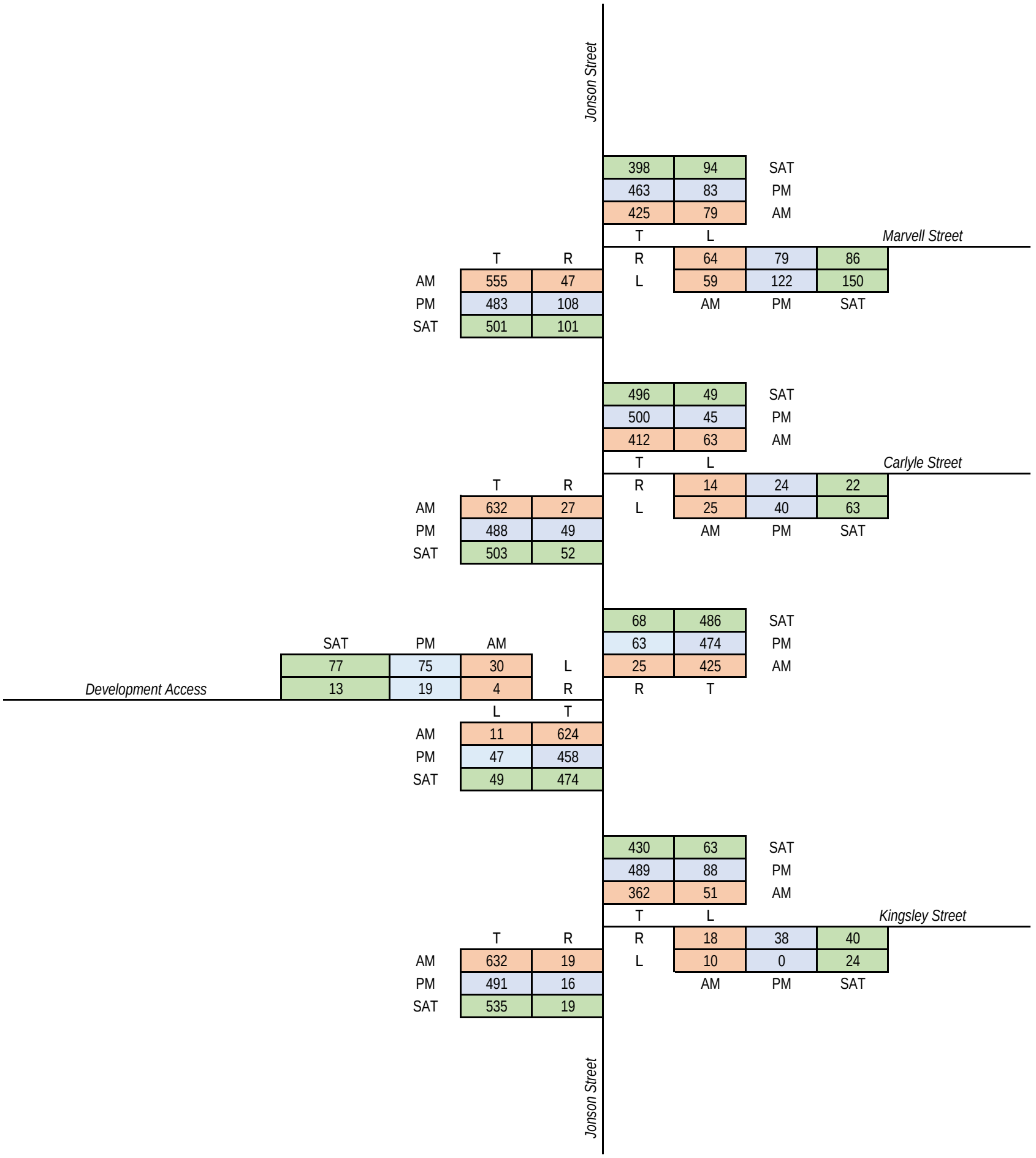
BITZIOS consulting — traffic engineering • transport planning	Sheet Name: Additonal Mercato on Byron Trips	Version: 003	Sheet Number: 2 of 13
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019

Growth	0.005
Growth Years	2
Growth Type	Compunding



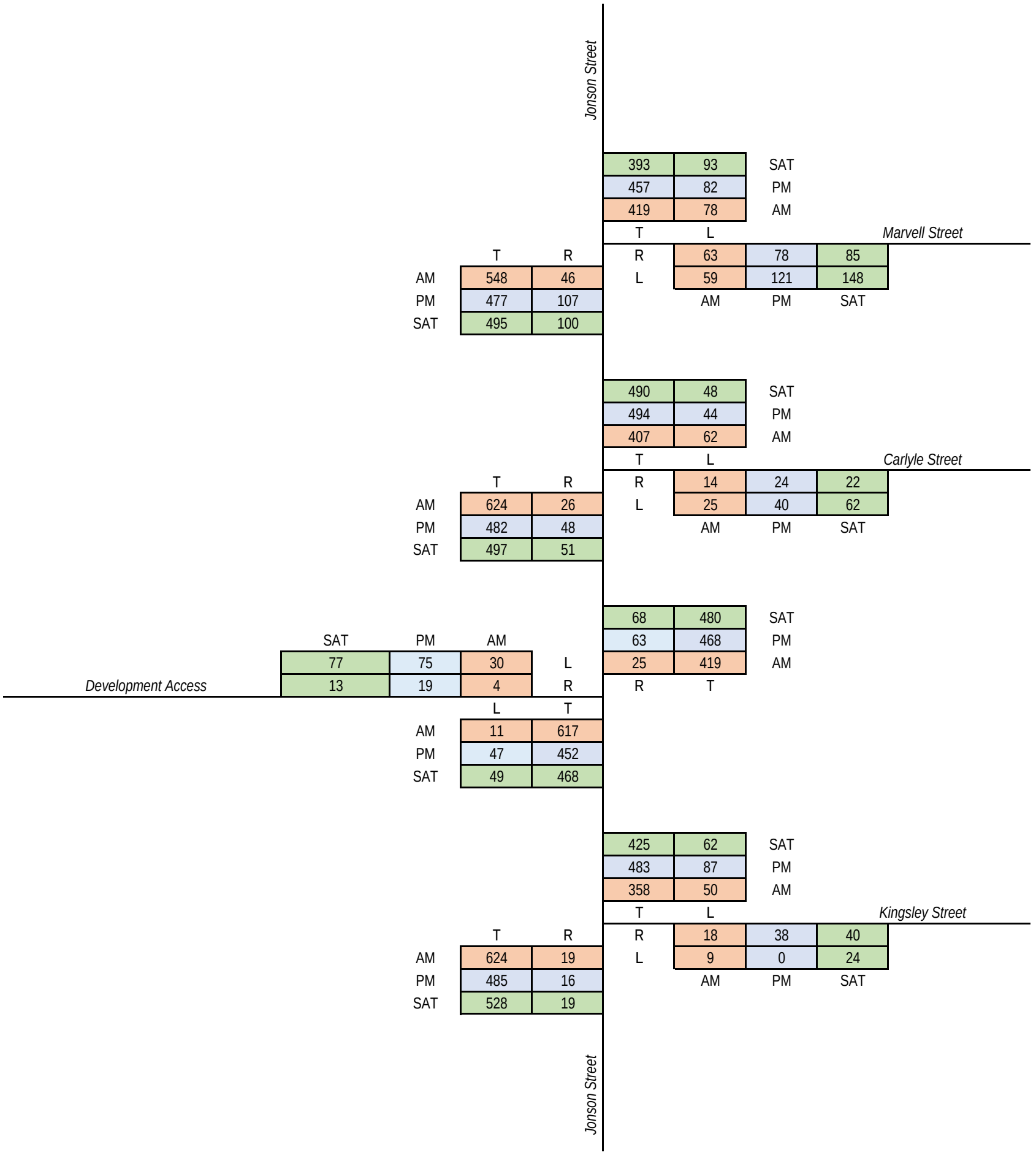
BITZIOS consulting traffic engineering • transport planning		Sheet Name: 2021 Background Traffic Volumes	Version: 003
		Project Name: Essence of Byron	Project Number: P3829
			Sheet Number: 3 of 13
			Date: 20 December 2019

Growth	0.005
Growth Years	12
Growth Type	Compunding



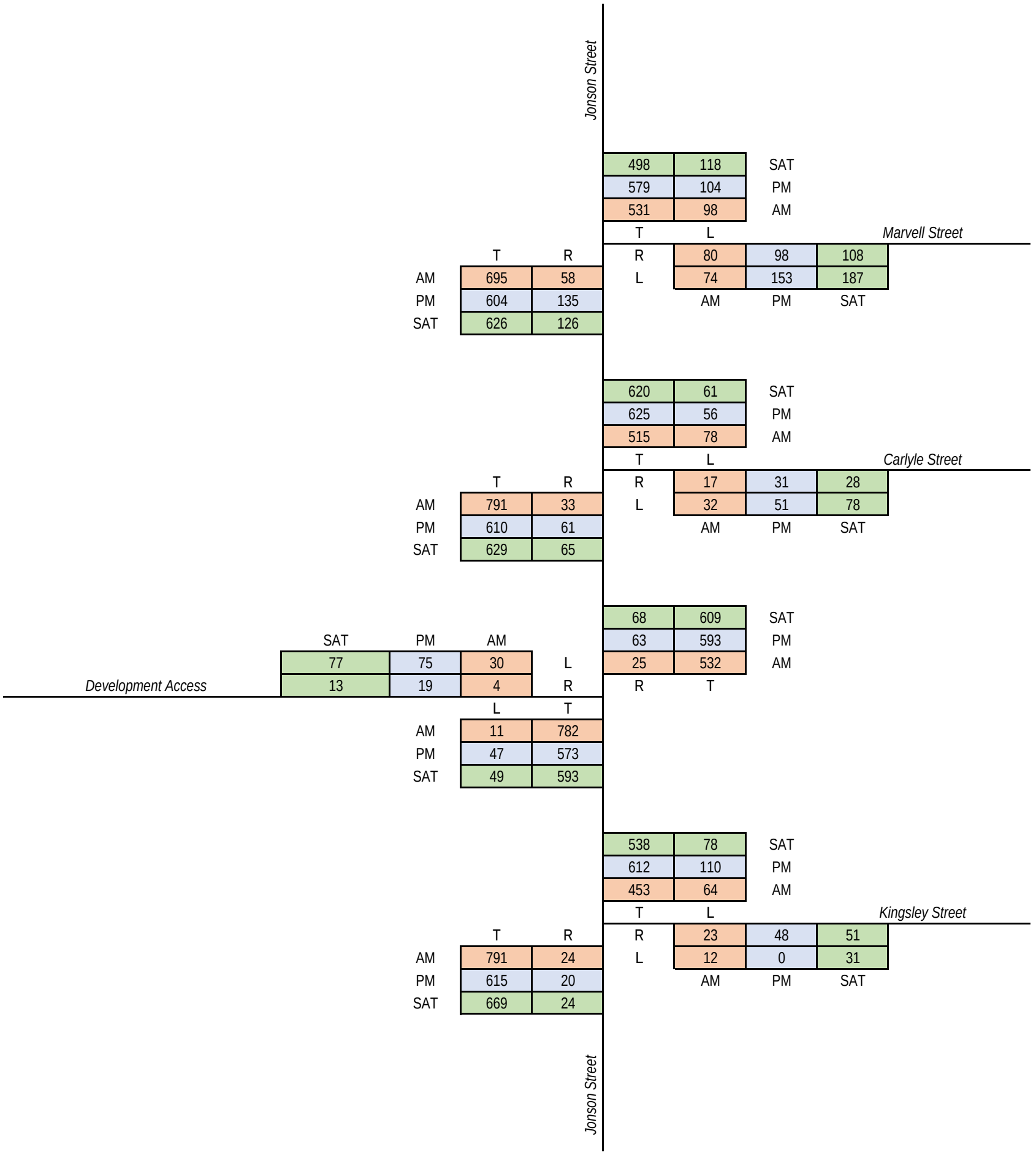
BITZIOS consulting traffic engineering • transport planning	N	Sheet Name: 2031 Background Traffic Volumes	Version: 003	Sheet Number: 4 of 13
		Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019

Growth	0.024
Growth Years	2
Growth Type	Compunding

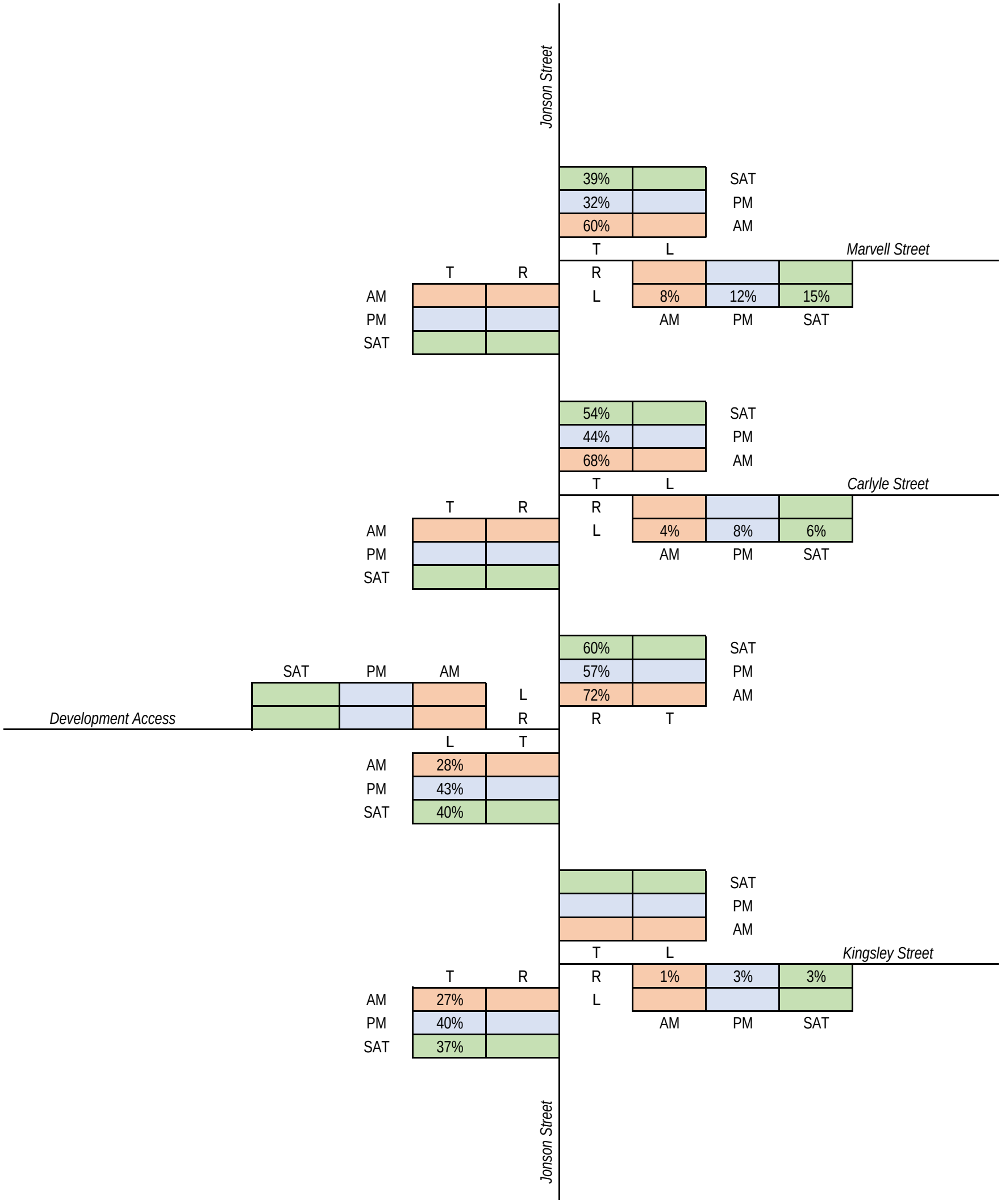


BITZIOS consulting traffic engineering • transport planning		Sheet Name: 2021 Sensitivity Test Background Traffic	Version: 003	Sheet Number: 5 of 13
		Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019

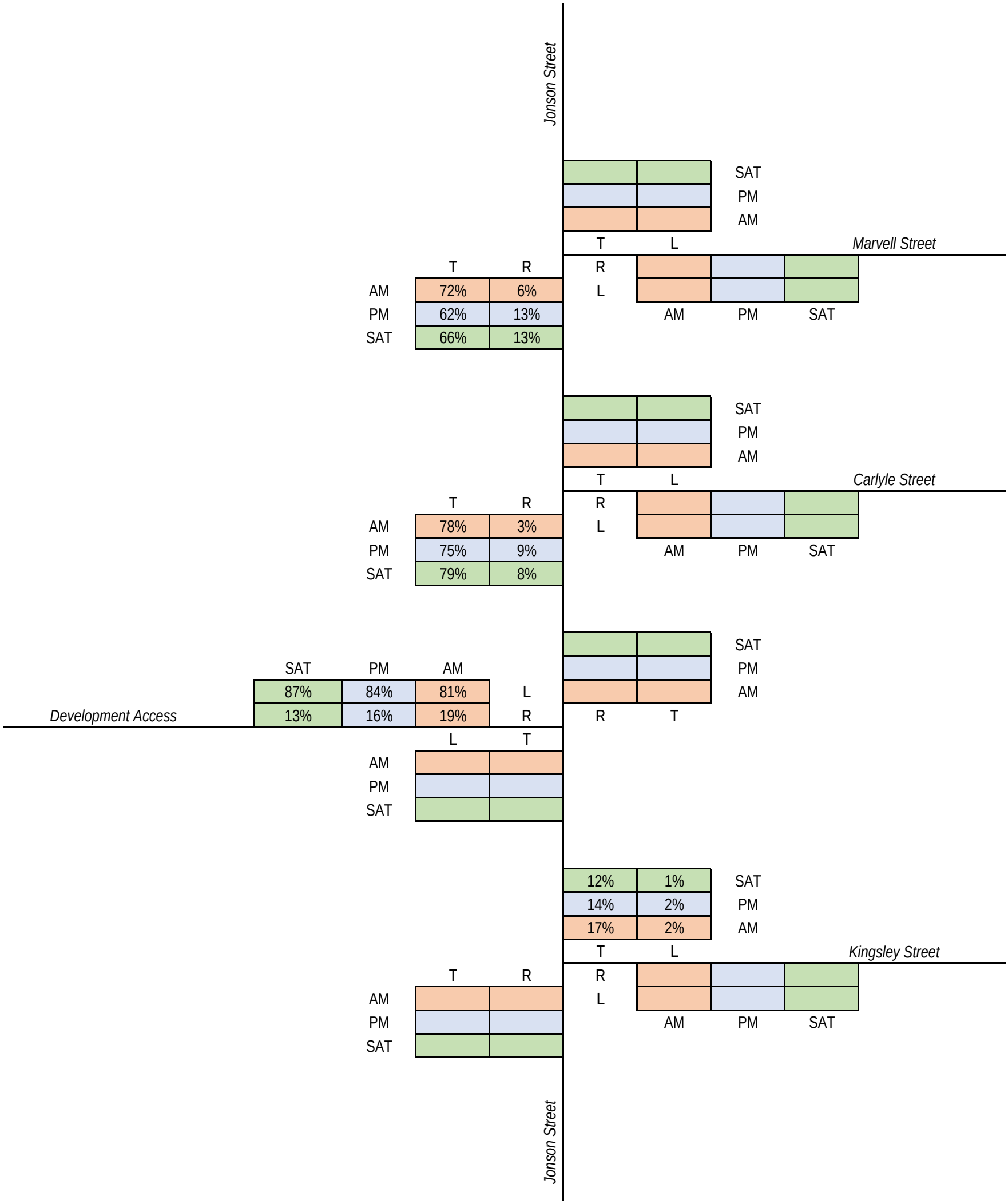
Growth	0.024
Growth Years	12
Growth Type	Compunding



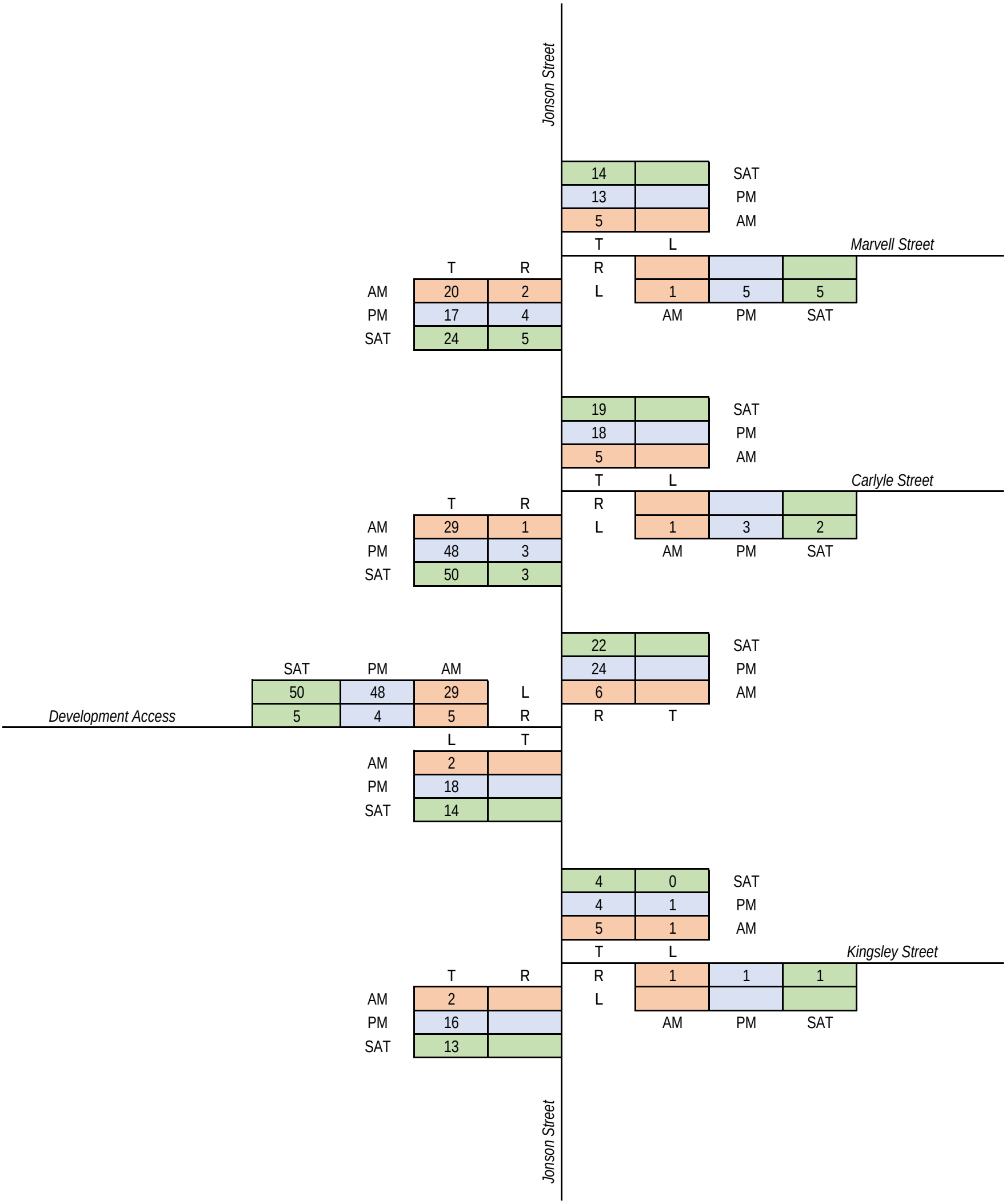
BITZIOS consulting traffic engineering • transport planning		Sheet Name: 2031 Sensitivity Background Traffic	Version: 003	Sheet Number: 6 of 13
		Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019



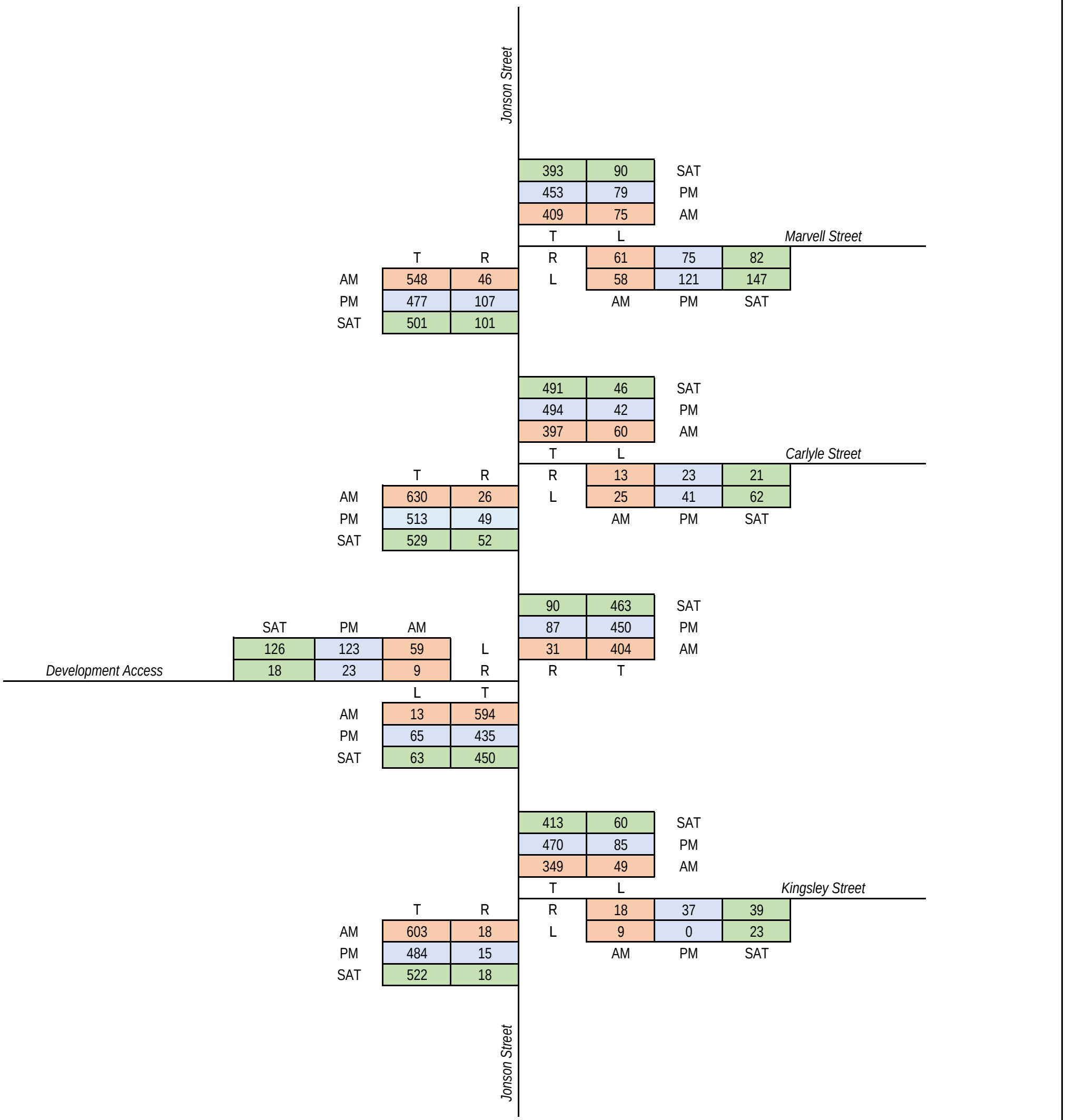
BITZIOS consulting — traffic engineering • transport planning	Sheet Name: Development Distribution IN	Version: 003	Sheet Number: 7 of 13
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019



BITZIOS consulting — traffic engineering • transport planning	Sheet Name: Development Distribution OUT	Version: 003	Sheet Number: 8 of 13
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019



BITZIOS consulting — traffic engineering • transport planning	Sheet Name: Development Traffic Volumes	Version: 003	Sheet Number: 9 of 13
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019



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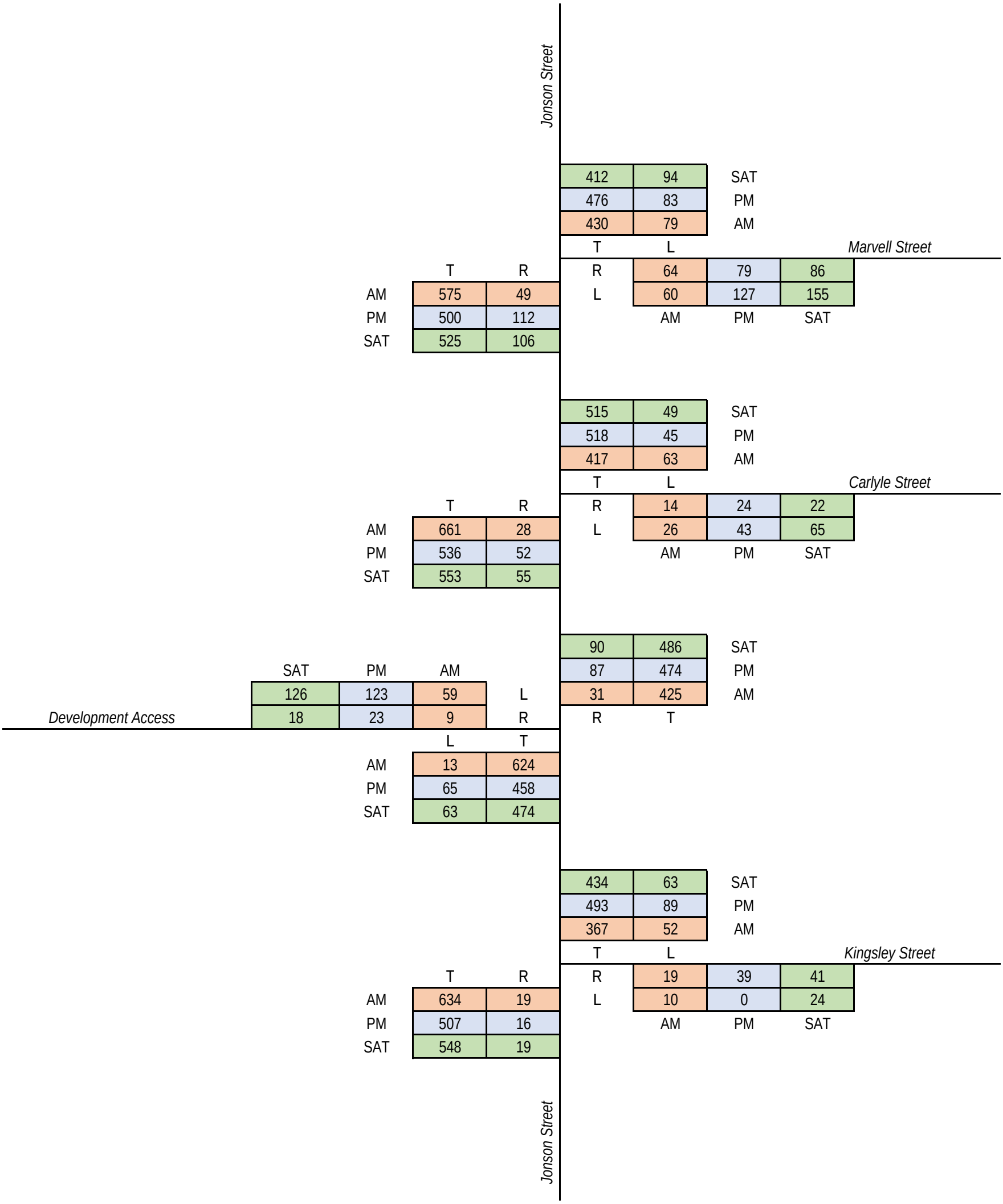
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019



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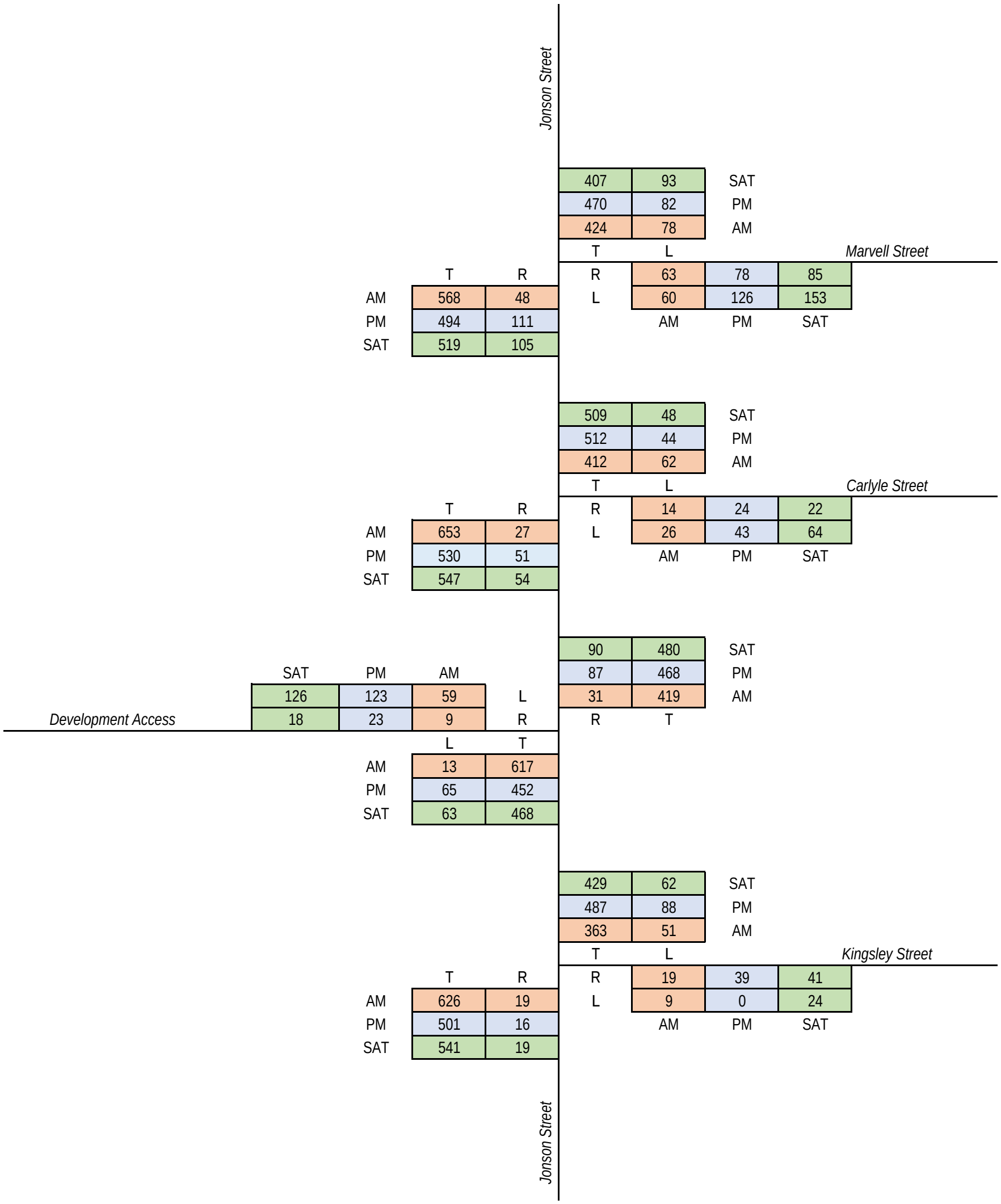
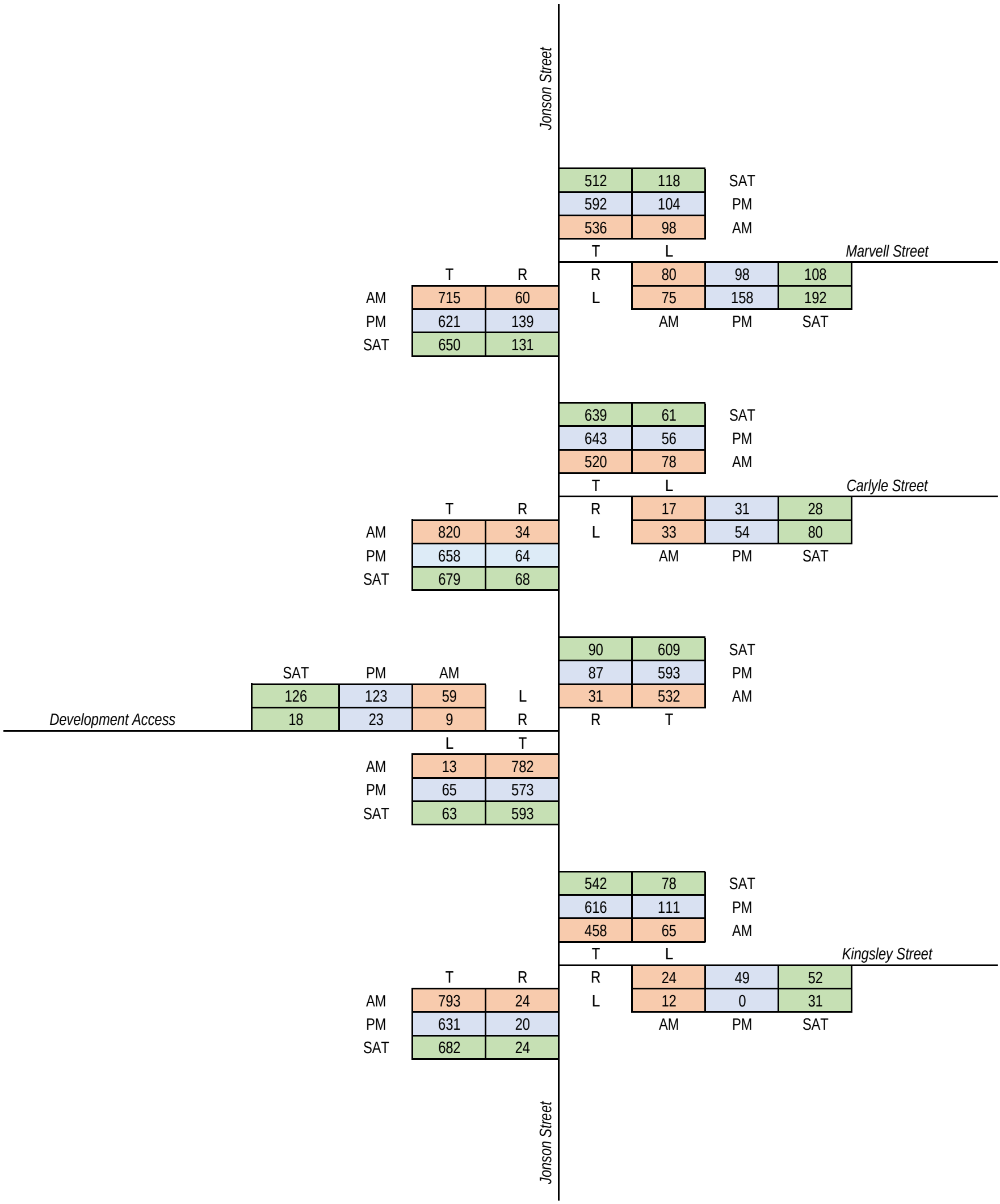
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019



BITZIOS consulting — traffic engineering • transport planning	Sheet Name: 2021 Sensitivity Design Traffic Volumes	Version: 003	Sheet Number: 12 of 13
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019



BITZIOS consulting — traffic engineering ▪ transport planning	Sheet Name: 2031 Sensitivity Design Traffic Volumes	Version: 003	Sheet Number: 13 of 13
	Project Name: Essence of Byron	Project Number: P3829	Date: 20 December 2019

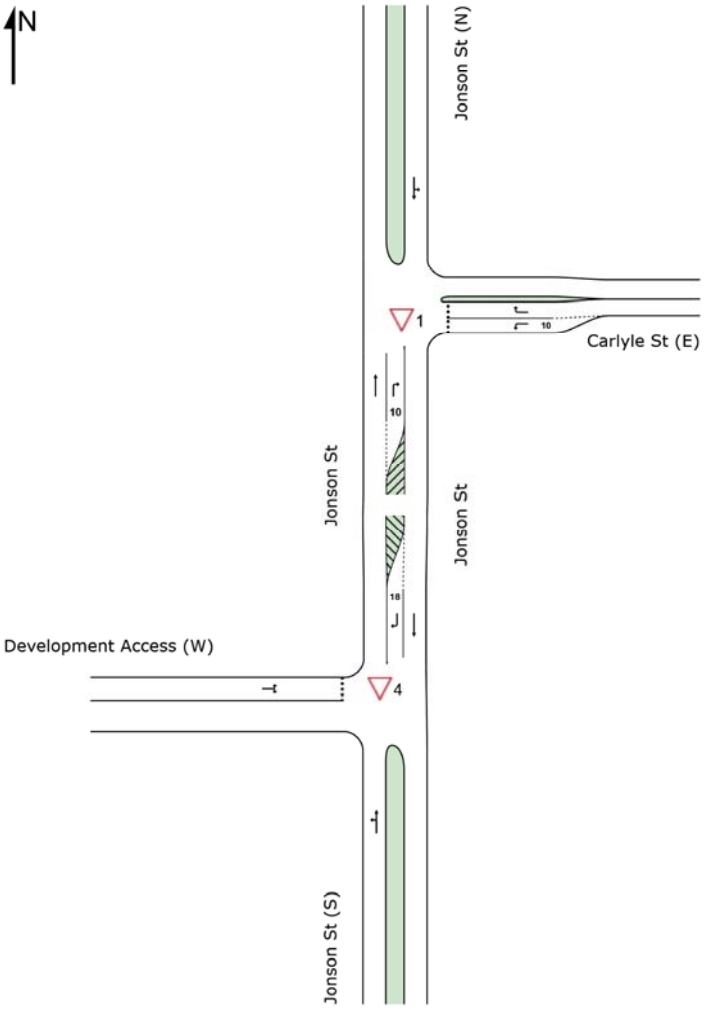
APPENDIX D

SIDRA OUTPUTS

NETWORK LAYOUT

Network: N101 [2021 BG AM]

Jonson Street / Carlyle Street / Development Access
Network Category: (None)



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽1	NA	2021 BG AM Carlyle
▽4	NA	2021 BG AM Access

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: BITZIOS CONSULTING | Created: Friday, 20 December 2019 9:50:59 AM
Project: P:\P3829 Mercato on Byron Hotel TIA\Technical Work\Models\P3829 Jonson Street - Carlyle Street - Development Access.sip8

MOVEMENT SUMMARY

Site: 4 [2021 BG AM Access]

Network: N101 [2021 BG AM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	12	0.0	12	0.0	0.308	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.1
2	T1	625	3.9	625	3.9	0.308	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.4
Approach		637	3.8	637	3.8	0.308	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
North: Jonson St														
8	T1	425	4.8	425	4.8	0.208	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	26	0.0	26	0.0	0.030	5.4	LOS A	0.0	0.3	0.56	0.66	0.56	43.4
Approach		452	4.5	452	4.5	0.208	0.3	NA	0.0	0.3	0.03	0.04	0.03	48.4
West: Development Access (W)														
10	L2	32	3.4	32	3.4	0.056	7.5	LOS A	0.1	0.6	0.58	0.74	0.58	40.5
12	R2	4	0.0	4	0.0	0.056	18.5	LOS C	0.1	0.6	0.58	0.74	0.58	41.4
Approach		36	3.0	36	3.0	0.056	8.8	LOS A	0.1	0.6	0.58	0.74	0.58	40.6
All Vehicles		1124	4.1	1124	4.1	0.308	0.5	NA	0.1	0.6	0.03	0.04	0.03	47.7

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

MOVEMENT SUMMARY

Site: 1 [2021 BG AM Carlyle]

Network: N101 [2021 BG AM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St														
2	T1	633	3.9	633	3.9	0.308	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	26	0.0	26	0.0	0.024	4.5	LOS A	0.0	0.3	0.49	0.60	0.49	36.3
Approach		659	3.7	659	3.7	0.308	0.2	NA	0.0	0.3	0.02	0.02	0.02	58.5
East: Carlyle St (E)														
4	L2	25	4.2	25	4.2	0.024	7.1	LOS A	0.0	0.3	0.43	0.62	0.43	31.6
6	R2	14	7.7	14	7.7	0.064	21.5	LOS C	0.1	0.6	0.82	0.93	0.82	24.0
Approach		39	5.4	39	5.4	0.064	12.2	LOS B	0.1	0.6	0.57	0.73	0.57	27.2
North: Jonson St (N)														
7	L2	63	1.7	63	1.7	0.233	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	51.6
8	T1	413	5.7	413	5.7	0.233	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	55.1
Approach		476	5.2	476	5.2	0.233	0.7	NA	0.0	0.0	0.00	0.08	0.00	54.3
All Vehicles		1174	4.4	1174	4.4	0.308	0.8	NA	0.1	0.6	0.03	0.07	0.03	54.5

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

MOVEMENT SUMMARY

Site: 4 [2021 BG PM Access]

Network: N101 [2021 BG PM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	49	0.0	49	0.0	0.242	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	48.7
2	T1	458	1.4	458	1.4	0.242	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	47.2
Approach		507	1.3	507	1.3	0.242	0.4	NA	0.0	0.0	0.00	0.05	0.00	47.7
North: Jonson St (N)														
8	T1	474	1.6	474	1.6	0.227	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	66	1.6	66	1.6	0.063	4.6	LOS A	0.1	0.7	0.51	0.63	0.51	44.1
Approach		540	1.6	540	1.6	0.227	0.6	NA	0.1	0.7	0.06	0.08	0.06	47.6
West: Development Access (W)														
10	L2	79	1.4	79	1.4	0.143	6.4	LOS A	0.2	1.5	0.55	0.72	0.55	40.7
12	R2	20	0.0	20	0.0	0.143	16.5	LOS C	0.2	1.5	0.55	0.72	0.55	41.6
Approach		99	1.1	99	1.1	0.143	8.5	LOS A	0.2	1.5	0.55	0.72	0.55	40.9
All Vehicles		1146	1.4	1146	1.4	0.242	1.2	NA	0.2	1.5	0.08	0.12	0.08	45.9

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

MOVEMENT SUMMARY

Site: 1 [2021 BG PM Carlyle]

Network: N101 [2021 BG PM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	489	1.5	489	1.5	0.235	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	48	0.0	48	0.0	0.048	4.9	LOS A	0.1	0.5	0.52	0.65	0.52	35.4
Approach		538	1.4	538	1.4	0.235	0.4	NA	0.1	0.5	0.05	0.06	0.05	56.6
East: Carlyle St (E)														
4	L2	40	2.6	40	2.6	0.041	7.6	LOS A	0.1	0.4	0.48	0.67	0.48	31.2
6	R2	24	4.3	24	4.3	0.092	18.5	LOS C	0.1	0.9	0.79	0.91	0.79	26.1
Approach		64	3.2	64	3.2	0.092	11.7	LOS B	0.1	0.9	0.60	0.76	0.60	28.2
North: Jonson St (N)														
7	L2	44	0.0	44	0.0	0.260	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	52.8
8	T1	501	1.5	501	1.5	0.260	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	57.0
Approach		545	1.4	545	1.4	0.260	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.3
All Vehicles		1147	1.5	1147	1.5	0.260	1.1	NA	0.1	0.9	0.06	0.09	0.06	53.0

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

MOVEMENT SUMMARY

Site: 4 [2021 BG SAT Access]

Network: N101 [2021 BG SAT]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	52	2.1	52	2.1	0.251	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	48.6
2	T1	474	1.1	474	1.1	0.251	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	47.2
Approach		525	1.2	525	1.2	0.251	0.5	NA	0.0	0.0	0.00	0.05	0.00	47.7
North: Jonson St (N)														
8	T1	487	1.7	487	1.7	0.234	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	72	0.0	72	0.0	0.069	4.7	LOS A	0.1	0.8	0.52	0.64	0.52	44.1
Approach		559	1.5	559	1.5	0.234	0.6	NA	0.1	0.8	0.07	0.08	0.07	47.5
West: Development Access (W)														
10	L2	81	2.7	81	2.7	0.129	6.5	LOS A	0.2	1.4	0.54	0.71	0.54	41.1
12	R2	14	0.0	14	0.0	0.129	17.4	LOS C	0.2	1.4	0.54	0.71	0.54	41.9
Approach		95	2.3	95	2.3	0.129	8.1	LOS A	0.2	1.4	0.54	0.71	0.54	41.2
All Vehicles		1179	1.4	1179	1.4	0.251	1.1	NA	0.2	1.4	0.08	0.12	0.08	46.1

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

MOVEMENT SUMMARY

Site: 1 [2021 BG SAT Carlyle]

Network: N101 [2021 BG SAT]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	504	1.5	504	1.5	0.242	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	52	0.0	52	0.0	0.051	4.9	LOS A	0.1	0.6	0.52	0.66	0.52	35.4
Approach		556	1.4	556	1.4	0.242	0.5	NA	0.1	0.6	0.05	0.06	0.05	56.5
East: Carlyle St (E)														
4	L2	63	3.4	63	3.4	0.065	7.6	LOS A	0.1	0.7	0.48	0.68	0.48	31.1
6	R2	22	4.8	22	4.8	0.087	18.9	LOS C	0.1	0.8	0.80	0.92	0.80	25.8
Approach		85	3.8	85	3.8	0.087	10.6	LOS B	0.1	0.8	0.56	0.74	0.56	28.7
North: Jonson St (N)														
7	L2	48	4.3	48	4.3	0.261	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	52.0
8	T1	497	1.3	497	1.3	0.261	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.8
Approach		545	1.6	545	1.6	0.261	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.0
All Vehicles		1186	1.6	1186	1.6	0.261	1.2	NA	0.1	0.8	0.06	0.11	0.06	52.4

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

MOVEMENT SUMMARY

Site: 4 [2021 DES AM Access]

Network: N101 [2021 DES AM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	14	0.0	14	0.0	0.309	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.0
2	T1	625	3.9	625	3.9	0.309	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.3
Approach		639	3.8	639	3.8	0.309	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.3
North: Jonson St (N)														
8	T1	425	4.8	425	4.8	0.208	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	33	0.0	33	0.0	0.037	5.4	LOS A	0.1	0.4	0.56	0.67	0.56	43.3
Approach		458	4.5	458	4.5	0.208	0.4	NA	0.1	0.4	0.04	0.05	0.04	48.1
West: Development Access (W)														
10	L2	62	3.4	62	3.4	0.115	7.6	LOS A	0.2	1.2	0.60	0.78	0.60	40.1
12	R2	9	0.0	9	0.0	0.115	19.3	LOS C	0.2	1.2	0.60	0.78	0.60	41.1
Approach		72	3.0	72	3.0	0.115	9.2	LOS A	0.2	1.2	0.60	0.78	0.60	40.3
All Vehicles		1168	4.0	1168	4.0	0.309	0.8	NA	0.2	1.2	0.05	0.07	0.05	46.7

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

MOVEMENT SUMMARY

Site: 1 [2021 DES AM Carlyle]

Network: N101 [2021 DES AM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	663	3.9	663	3.9	0.323	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	27	0.0	27	0.0	0.025	4.5	LOS A	0.0	0.3	0.49	0.60	0.49	36.3
Approach		691	3.7	691	3.7	0.323	0.2	NA	0.0	0.3	0.02	0.02	0.02	58.5
East: Carlyle St (E)														
4	L2	26	4.2	26	4.2	0.025	7.2	LOS A	0.0	0.3	0.44	0.62	0.44	31.6
6	R2	14	7.7	14	7.7	0.069	23.0	LOS C	0.1	0.7	0.84	0.93	0.84	23.1
Approach		40	5.4	40	5.4	0.069	12.6	LOS B	0.1	0.7	0.57	0.73	0.57	26.7
North: Jonson St (N)														
7	L2	63	1.7	63	1.7	0.236	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	51.7
8	T1	418	5.7	418	5.7	0.236	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	55.2
Approach		481	5.2	481	5.2	0.236	0.7	NA	0.0	0.0	0.00	0.08	0.00	54.4
All Vehicles		1212	4.4	1212	4.4	0.323	0.8	NA	0.1	0.7	0.03	0.07	0.03	54.5

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

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MOVEMENT SUMMARY

Site: 4 [2021 DES PM Access]

Network: N101 [2021 DES PM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	68	0.0	68	0.0	0.252	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	48.5
2	T1	458	1.4	458	1.4	0.252	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	46.3
Approach		526	1.2	526	1.2	0.252	0.6	NA	0.0	0.0	0.00	0.07	0.00	47.3
North: Jonson St (N)														
8	T1	474	1.6	474	1.6	0.227	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	92	1.6	92	1.6	0.089	4.8	LOS A	0.1	1.1	0.53	0.66	0.53	43.9
Approach		565	1.6	565	1.6	0.227	0.8	NA	0.1	1.1	0.09	0.11	0.09	47.0
West: Development Access (W)														
10	L2	129	1.4	129	1.4	0.211	6.5	LOS A	0.3	2.3	0.56	0.73	0.56	40.9
12	R2	24	0.0	24	0.0	0.211	18.0	LOS C	0.3	2.3	0.56	0.73	0.56	41.8
Approach		154	1.2	154	1.2	0.211	8.3	LOS A	0.3	2.3	0.56	0.73	0.56	41.0
All Vehicles		1245	1.4	1245	1.4	0.252	1.6	NA	0.3	2.3	0.11	0.17	0.11	45.2

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

MOVEMENT SUMMARY

Site: 1 [2021 DES PM Carlyle]

Network: N101 [2021 DES PM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	540	1.5	540	1.5	0.259	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	52	0.0	52	0.0	0.052	5.0	LOS A	0.1	0.6	0.53	0.66	0.53	35.1
Approach		592	1.4	592	1.4	0.259	0.4	NA	0.1	0.6	0.05	0.06	0.05	56.6
East: Carlyle St (E)														
4	L2	43	2.6	43	2.6	0.045	7.7	LOS A	0.1	0.5	0.49	0.68	0.49	30.9
6	R2	24	4.3	24	4.3	0.105	20.5	LOS C	0.1	1.0	0.82	0.92	0.82	24.7
Approach		67	3.2	67	3.2	0.105	12.3	LOS B	0.1	1.0	0.61	0.77	0.61	27.3
North: Jonson St (N)														
7	L2	44	0.0	44	0.0	0.269	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	52.8
8	T1	520	1.5	520	1.5	0.269	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	57.1
Approach		564	1.4	564	1.4	0.269	0.4	NA	0.0	0.0	0.00	0.05	0.00	56.4
All Vehicles		1223	1.5	1223	1.5	0.269	1.1	NA	0.1	1.0	0.06	0.09	0.06	53.0

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

MOVEMENT SUMMARY

Site: 4 [2021 DES SAT Access]

Network: N101 [2021 DES SAT]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	66	2.1	66	2.1	0.258	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	48.5
2	T1	474	1.1	474	1.1	0.258	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	46.6
Approach		540	1.2	540	1.2	0.258	0.6	NA	0.0	0.0	0.00	0.07	0.00	47.4
North: Jonson St (N)														
8	T1	487	1.7	487	1.7	0.234	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	95	0.0	95	0.0	0.093	4.9	LOS A	0.2	1.1	0.53	0.67	0.53	43.9
Approach		582	1.4	582	1.4	0.234	0.8	NA	0.2	1.1	0.09	0.11	0.09	47.0
West: Development Access (W)														
10	L2	133	2.7	133	2.7	0.202	6.6	LOS A	0.3	2.2	0.56	0.73	0.56	41.0
12	R2	19	0.0	19	0.0	0.202	18.9	LOS C	0.3	2.2	0.56	0.73	0.56	41.9
Approach		152	2.4	152	2.4	0.202	8.2	LOS A	0.3	2.2	0.56	0.73	0.56	41.1
All Vehicles		1274	1.5	1274	1.5	0.258	1.6	NA	0.3	2.2	0.11	0.16	0.11	45.3

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

MOVEMENT SUMMARY

Site: 1 [2021 DES SAT Carlyle]

Network: N101 [2021 DES SAT]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	557	1.5	557	1.5	0.267	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	55	0.0	55	0.0	0.055	5.1	LOS A	0.1	0.6	0.53	0.67	0.53	35.1
Approach		612	1.4	612	1.4	0.267	0.5	NA	0.1	0.6	0.05	0.06	0.05	56.5
East: Carlyle St (E)														
4	L2	65	3.4	65	3.4	0.069	7.7	LOS A	0.1	0.7	0.49	0.70	0.49	30.8
6	R2	22	4.8	22	4.8	0.100	21.3	LOS C	0.1	0.9	0.83	0.93	0.83	24.3
Approach		87	3.8	87	3.8	0.100	11.2	LOS B	0.1	0.9	0.58	0.75	0.58	27.8
North: Jonson St (N)														
7	L2	48	4.3	48	4.3	0.270	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	52.1
8	T1	517	1.3	517	1.3	0.270	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.9
Approach		565	1.6	565	1.6	0.270	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.1
All Vehicles		1264	1.6	1264	1.6	0.270	1.2	NA	0.1	0.9	0.06	0.10	0.06	52.4

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

MOVEMENT SUMMARY

Site: 4 [2031 BG AM Access]

Network: N101 [2031 BG AM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	12	0.0	12	0.0	0.323	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.1
2	T1	657	3.9	657	3.9	0.323	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.4
Approach		668	3.8	668	3.8	0.323	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
North: Jonson St (N)														
8	T1	447	4.8	447	4.8	0.219	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	26	0.0	26	0.0	0.031	5.6	LOS A	0.0	0.3	0.57	0.68	0.57	43.1
Approach		474	4.5	474	4.5	0.219	0.3	NA	0.0	0.3	0.03	0.04	0.03	48.4
West: Development Access (W)														
10	L2	32	3.4	32	3.4	0.060	7.8	LOS A	0.1	0.6	0.60	0.76	0.60	40.1
12	R2	4	0.0	4	0.0	0.060	20.3	LOS C	0.1	0.6	0.60	0.76	0.60	41.1
Approach		36	3.0	36	3.0	0.060	9.2	LOS A	0.1	0.6	0.60	0.76	0.60	40.2
All Vehicles		1178	4.1	1178	4.1	0.323	0.5	NA	0.1	0.6	0.03	0.04	0.03	47.7

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

MOVEMENT SUMMARY

Site: 1 [2031 BG AM Carlyle]

Network: N101 [2031 BG AM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	665	3.9	665	3.9	0.324	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	28	0.0	28	0.0	0.027	4.7	LOS A	0.0	0.3	0.50	0.61	0.50	36.0
Approach		694	3.7	694	3.7	0.324	0.2	NA	0.0	0.3	0.02	0.03	0.02	58.4
East: Carlyle St (E)														
4	L2	26	4.2	26	4.2	0.026	7.3	LOS A	0.0	0.3	0.44	0.63	0.44	31.5
6	R2	15	7.7	15	7.7	0.077	23.8	LOS C	0.1	0.7	0.85	0.94	0.85	22.7
Approach		41	5.5	41	5.5	0.077	13.2	LOS B	0.1	0.7	0.59	0.74	0.59	26.2
North: Jonson St (N)														
7	L2	66	1.7	66	1.7	0.245	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	51.6
8	T1	434	5.7	434	5.7	0.245	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	55.1
Approach		500	5.2	500	5.2	0.245	0.7	NA	0.0	0.0	0.00	0.08	0.00	54.3
All Vehicles		1235	4.4	1235	4.4	0.324	0.8	NA	0.1	0.7	0.03	0.07	0.03	54.3

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

MOVEMENT SUMMARY

Site: 4 [2031 BG PM Access]

Network: N101 [2031 BG PM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	49	0.0	49	0.0	0.254	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	48.7
2	T1	482	1.4	482	1.4	0.254	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	47.3
Approach		532	1.3	532	1.3	0.254	0.4	NA	0.0	0.0	0.00	0.05	0.00	47.8
North: Jonson St (N)														
8	T1	499	1.6	499	1.6	0.239	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	66	1.6	66	1.6	0.065	4.8	LOS A	0.1	0.8	0.52	0.65	0.52	43.9
Approach		565	1.6	565	1.6	0.239	0.6	NA	0.1	0.8	0.06	0.08	0.06	47.6
West: Development Access (W)														
10	L2	79	1.4	79	1.4	0.152	6.6	LOS A	0.2	1.6	0.57	0.73	0.57	40.4
12	R2	20	0.0	20	0.0	0.152	17.8	LOS C	0.2	1.6	0.57	0.73	0.57	41.3
Approach		99	1.1	99	1.1	0.152	8.8	LOS A	0.2	1.6	0.57	0.73	0.57	40.6
All Vehicles		1196	1.4	1196	1.4	0.254	1.2	NA	0.2	1.6	0.08	0.12	0.08	45.9

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

MOVEMENT SUMMARY

Site: 1 [2031 BG PM Carlyle]

Network: N101 [2031 BG PM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	514	1.5	514	1.5	0.247	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	52	0.0	52	0.0	0.053	5.1	LOS A	0.1	0.6	0.54	0.67	0.54	35.0
Approach		565	1.4	565	1.4	0.247	0.5	NA	0.1	0.6	0.05	0.06	0.05	56.4
East: Carlyle St (E)														
4	L2	42	2.6	42	2.6	0.045	7.7	LOS A	0.1	0.5	0.49	0.68	0.49	30.8
6	R2	25	4.3	25	4.3	0.106	20.1	LOS C	0.1	1.0	0.82	0.92	0.82	25.0
Approach		67	3.2	67	3.2	0.106	12.4	LOS B	0.1	1.0	0.61	0.77	0.61	27.4
North: Jonson St (N)														
7	L2	47	0.0	47	0.0	0.274	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	52.8
8	T1	526	1.5	526	1.5	0.274	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.9
Approach		574	1.4	574	1.4	0.274	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.3
All Vehicles		1206	1.5	1206	1.5	0.274	1.1	NA	0.1	1.0	0.06	0.10	0.06	52.8

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

MOVEMENT SUMMARY

Site: 4 [2031 BG SAT Access]

Network: N101 [2031 BG SAT]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	52	2.1	52	2.1	0.263	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	48.6
2	T1	499	1.1	499	1.1	0.263	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	47.3
Approach		551	1.2	551	1.2	0.263	0.4	NA	0.0	0.0	0.00	0.05	0.00	47.8
North: Jonson St (N)														
8	T1	512	1.7	512	1.7	0.245	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	72	0.0	72	0.0	0.071	4.9	LOS A	0.1	0.8	0.53	0.66	0.53	43.9
Approach		583	1.5	583	1.5	0.245	0.6	NA	0.1	0.8	0.07	0.08	0.07	47.5
West: Development Access (W)														
10	L2	81	2.7	81	2.7	0.136	6.7	LOS A	0.2	1.4	0.56	0.73	0.56	40.8
12	R2	14	0.0	14	0.0	0.136	18.8	LOS C	0.2	1.4	0.56	0.73	0.56	41.7
Approach		95	2.3	95	2.3	0.136	8.4	LOS A	0.2	1.4	0.56	0.73	0.56	40.9
All Vehicles		1228	1.4	1228	1.4	0.263	1.1	NA	0.2	1.4	0.07	0.12	0.07	46.0

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

MOVEMENT SUMMARY

Site: 1 [2031 BG SAT Carlyle]

Network: N101 [2031 BG SAT]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	529	1.5	529	1.5	0.254	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	55	0.0	55	0.0	0.056	5.1	LOS A	0.1	0.6	0.54	0.67	0.54	35.0
Approach		584	1.4	584	1.4	0.254	0.5	NA	0.1	0.6	0.05	0.06	0.05	56.3
East: Carlyle St (E)														
4	L2	66	3.4	66	3.4	0.070	7.8	LOS A	0.1	0.8	0.49	0.70	0.49	30.7
6	R2	23	4.8	23	4.8	0.101	20.6	LOS C	0.1	1.0	0.82	0.92	0.82	24.7
Approach		89	3.8	89	3.8	0.101	11.1	LOS B	0.1	1.0	0.58	0.76	0.58	28.0
North: Jonson St (N)														
7	L2	52	4.3	52	4.3	0.274	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	52.0
8	T1	522	1.3	522	1.3	0.274	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.8
Approach		574	1.6	574	1.6	0.274	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.0
All Vehicles		1247	1.6	1247	1.6	0.274	1.3	NA	0.1	1.0	0.07	0.11	0.07	52.2

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

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MOVEMENT SUMMARY

Site: 4 [2031 DES AM Access]

Network: N101 [2031 DES AM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	14	0.0	14	0.0	0.324	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.0
2	T1	657	3.9	657	3.9	0.324	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.3
Approach		671	3.8	671	3.8	0.324	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.3
North: Jonson St (N)														
8	T1	447	4.8	447	4.8	0.219	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	33	0.0	33	0.0	0.039	5.7	LOS A	0.1	0.4	0.58	0.69	0.58	43.1
Approach		480	4.5	480	4.5	0.219	0.4	NA	0.1	0.4	0.04	0.05	0.04	48.1
West: Development Access (W)														
10	L2	62	3.4	62	3.4	0.123	7.9	LOS A	0.2	1.3	0.62	0.80	0.62	39.7
12	R2	9	0.0	9	0.0	0.123	21.2	LOS C	0.2	1.3	0.62	0.80	0.62	40.7
Approach		72	3.0	72	3.0	0.123	9.6	LOS A	0.2	1.3	0.62	0.80	0.62	39.9
All Vehicles		1222	4.0	1222	4.0	0.324	0.8	NA	0.2	1.3	0.05	0.07	0.05	46.6

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

MOVEMENT SUMMARY

Site: 1 [2031 DES AM Carlyle]

Network: N101 [2031 DES AM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	696	3.9	696	3.9	0.339	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	29	0.0	29	0.0	0.028	4.7	LOS A	0.0	0.3	0.50	0.62	0.50	35.9
Approach		725	3.7	725	3.7	0.339	0.2	NA	0.0	0.3	0.02	0.03	0.02	58.4
East: Carlyle St (E)														
4	L2	27	4.2	27	4.2	0.027	7.3	LOS A	0.0	0.3	0.45	0.63	0.45	31.5
6	R2	15	7.7	15	7.7	0.084	25.5	LOS D	0.1	0.8	0.86	0.94	0.86	21.8
Approach		42	5.4	42	5.4	0.084	13.7	LOS B	0.1	0.8	0.59	0.74	0.59	25.7
North: Jonson St (N)														
7	L2	66	1.7	66	1.7	0.248	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	51.7
8	T1	439	5.7	439	5.7	0.248	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	55.2
Approach		505	5.2	505	5.2	0.248	0.7	NA	0.0	0.0	0.00	0.08	0.00	54.4
All Vehicles		1273	4.4	1273	4.4	0.339	0.9	NA	0.1	0.8	0.03	0.07	0.03	54.3

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

MOVEMENT SUMMARY

Site: 4 [2031 DES PM Access]

Network: N101 [2031 DES PM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	68	0.0	68	0.0	0.263	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	48.5
2	T1	482	1.4	482	1.4	0.263	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	46.5
Approach		551	1.2	551	1.2	0.263	0.6	NA	0.0	0.0	0.00	0.07	0.00	47.4
North: Jonson St (N)														
8	T1	499	1.6	499	1.6	0.239	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	92	1.6	92	1.6	0.092	5.0	LOS A	0.2	1.1	0.54	0.67	0.54	43.8
Approach		591	1.6	591	1.6	0.239	0.8	NA	0.2	1.1	0.08	0.10	0.08	47.0
West: Development Access (W)														
10	L2	129	1.4	129	1.4	0.222	6.7	LOS A	0.3	2.4	0.58	0.75	0.58	40.5
12	R2	24	0.0	24	0.0	0.222	19.5	LOS C	0.3	2.4	0.58	0.75	0.58	41.5
Approach		154	1.2	154	1.2	0.222	8.7	LOS A	0.3	2.4	0.58	0.75	0.58	40.7
All Vehicles		1295	1.4	1295	1.4	0.263	1.6	NA	0.3	2.4	0.11	0.17	0.11	45.1

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

MOVEMENT SUMMARY

Site: 1 [2031 DES PM Carlyle]

Network: N101 [2031 DES PM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	564	1.5	564	1.5	0.271	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	55	0.0	55	0.0	0.057	5.2	LOS A	0.1	0.7	0.55	0.68	0.55	34.7
Approach		619	1.4	619	1.4	0.271	0.5	NA	0.1	0.7	0.05	0.06	0.05	56.5
East: Carlyle St (E)														
4	L2	45	2.6	45	2.6	0.049	7.9	LOS A	0.1	0.5	0.50	0.69	0.50	30.6
6	R2	25	4.3	25	4.3	0.121	22.4	LOS C	0.2	1.1	0.84	0.93	0.84	23.6
Approach		71	3.2	71	3.2	0.121	13.1	LOS B	0.2	1.1	0.62	0.78	0.62	26.5
North: Jonson St (N)														
7	L2	47	0.0	47	0.0	0.283	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	52.8
8	T1	545	1.5	545	1.5	0.283	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	57.0
Approach		593	1.4	593	1.4	0.283	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.4
All Vehicles		1282	1.5	1282	1.5	0.283	1.2	NA	0.2	1.1	0.06	0.09	0.06	52.7

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

MOVEMENT SUMMARY

Site: 4 [2031 DES SAT Access]

Network: N101 [2031 DES SAT]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	66	2.1	66	2.1	0.270	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	48.5
2	T1	499	1.1	499	1.1	0.270	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	46.7
Approach		565	1.2	565	1.2	0.270	0.5	NA	0.0	0.0	0.00	0.06	0.00	47.5
North: Jonson St (N)														
8	T1	512	1.7	512	1.7	0.246	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	95	0.0	95	0.0	0.096	5.0	LOS A	0.2	1.1	0.54	0.68	0.54	43.7
Approach		606	1.4	606	1.4	0.246	0.8	NA	0.2	1.1	0.08	0.11	0.08	47.0
West: Development Access (W)														
10	L2	133	2.7	133	2.7	0.213	6.8	LOS A	0.3	2.3	0.58	0.75	0.58	40.7
12	R2	19	0.0	19	0.0	0.213	20.4	LOS C	0.3	2.3	0.58	0.75	0.58	41.6
Approach		152	2.4	152	2.4	0.213	8.5	LOS A	0.3	2.3	0.58	0.75	0.58	40.8
All Vehicles		1323	1.4	1323	1.4	0.270	1.6	NA	0.3	2.3	0.10	0.16	0.10	45.2

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

MOVEMENT SUMMARY

Site: 1 [2031 DES SAT Carlyle]

Network: N101 [2031 DES SAT]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

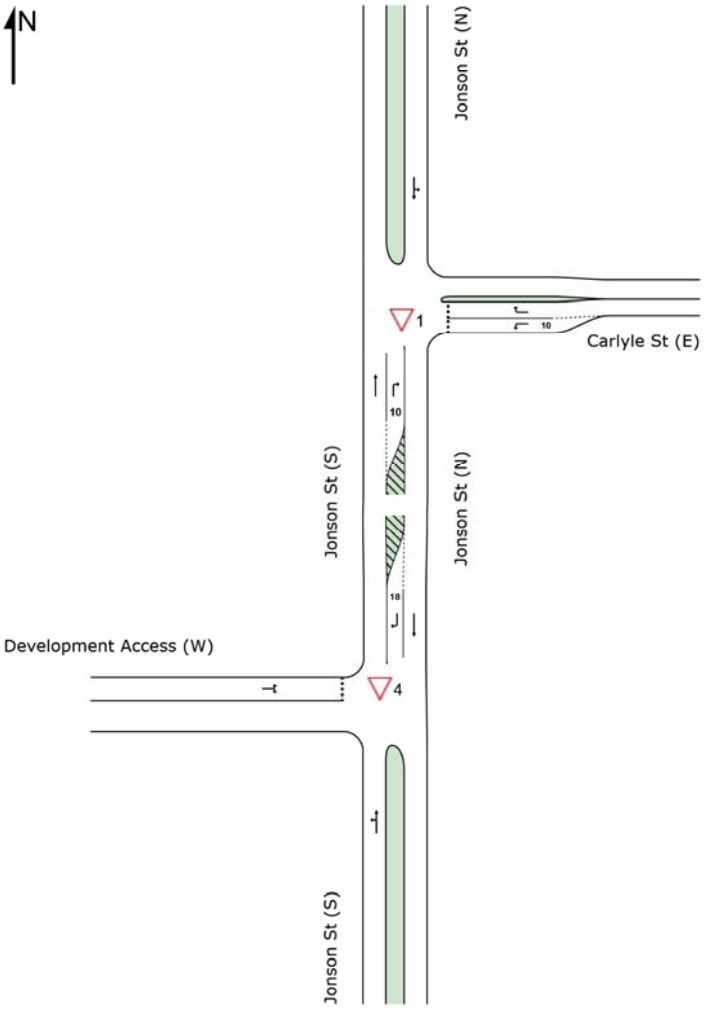
Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	582	1.5	582	1.5	0.278	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	58	0.0	58	0.0	0.061	5.3	LOS A	0.1	0.7	0.55	0.69	0.55	34.6
Approach		640	1.4	640	1.4	0.278	0.5	NA	0.1	0.7	0.05	0.06	0.05	56.4
East: Carlyle St (E)														
4	L2	68	3.4	68	3.4	0.075	7.9	LOS A	0.1	0.8	0.51	0.71	0.51	30.5
6	R2	23	4.8	23	4.8	0.116	23.2	LOS C	0.1	1.1	0.85	0.94	0.85	23.1
Approach		92	3.8	92	3.8	0.116	11.8	LOS B	0.1	1.1	0.59	0.77	0.59	27.0
North: Jonson St (N)														
7	L2	52	4.3	52	4.3	0.284	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	52.0
8	T1	542	1.3	542	1.3	0.284	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.9
Approach		594	1.6	594	1.6	0.284	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.1
All Vehicles		1325	1.6	1325	1.6	0.284	1.3	NA	0.1	1.1	0.06	0.11	0.06	52.2

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

NETWORK LAYOUT

Network: N101 [2021 BG AM]

Jonson Street / Carlyle Street / Development Access
Network Category: (None)



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽1	NA	2021 BG AM Carlyle Sensitivity
▽4	NA	2021 BG AM Access Sensitivity

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Organisation: BITZIOS CONSULTING | Created: Friday, 20 December 2019 10:57:23 AM
Project: P:\P3829 Mercato on Byron Hotel TIA\Technical Work\Models\P3829 Jonson Street - Carlyle Street - Development Access - Sensitivity Test.sip8

MOVEMENT SUMMARY

Site: 4 [2021 BG AM Access Sensitivity]

Network: N101 [2021 BG AM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	12	0.0	12	0.0	0.319	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.1
2	T1	649	3.9	649	3.9	0.319	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.4
Approach		661	3.8	661	3.8	0.319	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
North: Jonson St (N)														
8	T1	441	4.8	441	4.8	0.216	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	26	0.0	26	0.0	0.031	5.6	LOS A	0.0	0.3	0.57	0.67	0.57	43.2
Approach		467	4.5	467	4.5	0.216	0.3	NA	0.0	0.3	0.03	0.04	0.03	48.4
West: Development Access (W)														
10	L2	32	3.4	32	3.4	0.059	7.7	LOS A	0.1	0.6	0.59	0.75	0.59	40.2
12	R2	4	0.0	4	0.0	0.059	19.8	LOS C	0.1	0.6	0.59	0.75	0.59	41.1
Approach		36	3.0	36	3.0	0.059	9.1	LOS A	0.1	0.6	0.59	0.75	0.59	40.3
All Vehicles		1164	4.1	1164	4.1	0.319	0.5	NA	0.1	0.6	0.03	0.04	0.03	47.7

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

MOVEMENT SUMMARY

Site: 1 [2021 BG AM Carlyle Sensitivity]

Network: N101 [2021 BG AM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	657	3.9	657	3.9	0.320	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	27	0.0	27	0.0	0.026	4.6	LOS A	0.0	0.3	0.50	0.61	0.50	36.1
Approach		684	3.7	684	3.7	0.320	0.2	NA	0.0	0.3	0.02	0.02	0.02	58.5
East: Carlyle St (E)														
4	L2	26	4.2	26	4.2	0.025	7.2	LOS A	0.0	0.3	0.44	0.63	0.44	31.5
6	R2	15	7.7	15	7.7	0.075	23.2	LOS C	0.1	0.7	0.84	0.93	0.84	23.0
Approach		41	5.5	41	5.5	0.075	12.9	LOS B	0.1	0.7	0.58	0.74	0.58	26.5
North: Jonson St (N)														
7	L2	65	1.7	65	1.7	0.242	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	51.6
8	T1	428	5.7	428	5.7	0.242	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	55.1
Approach		494	5.2	494	5.2	0.242	0.7	NA	0.0	0.0	0.00	0.08	0.00	54.3
All Vehicles		1219	4.4	1219	4.4	0.320	0.8	NA	0.1	0.7	0.03	0.07	0.03	54.3

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

MOVEMENT SUMMARY

Site: 4 [2021 BG PM Access Sensitivity]

Network: N101 [2021 BG PM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	49	0.0	49	0.0	0.251	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	48.7
2	T1	476	1.4	476	1.4	0.251	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	47.3
Approach		525	1.3	525	1.3	0.251	0.4	NA	0.0	0.0	0.00	0.05	0.00	47.8
North: Jonson St (N)														
8	T1	493	1.6	493	1.6	0.236	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	66	1.6	66	1.6	0.064	4.7	LOS A	0.1	0.8	0.52	0.64	0.52	44.0
Approach		559	1.6	559	1.6	0.236	0.6	NA	0.1	0.8	0.06	0.08	0.06	47.6
West: Development Access (W)														
10	L2	79	1.4	79	1.4	0.149	6.5	LOS A	0.2	1.6	0.57	0.73	0.57	40.5
12	R2	20	0.0	20	0.0	0.149	17.5	LOS C	0.2	1.6	0.57	0.73	0.57	41.4
Approach		99	1.1	99	1.1	0.149	8.7	LOS A	0.2	1.6	0.57	0.73	0.57	40.7
All Vehicles		1183	1.4	1183	1.4	0.251	1.2	NA	0.2	1.6	0.08	0.12	0.08	45.9

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

MOVEMENT SUMMARY

Site: 1 [2021 BG PM Carlyle Sensitivity]

Network: N101 [2021 BG PM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	507	1.5	507	1.5	0.244	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	51	0.0	51	0.0	0.051	5.1	LOS A	0.1	0.6	0.53	0.66	0.53	35.1
Approach		558	1.4	558	1.4	0.244	0.5	NA	0.1	0.6	0.05	0.06	0.05	56.5
East: Carlyle St (E)														
4	L2	42	2.6	42	2.6	0.044	7.7	LOS A	0.1	0.5	0.49	0.68	0.49	30.9
6	R2	25	4.3	25	4.3	0.104	19.7	LOS C	0.1	1.0	0.81	0.92	0.81	25.3
Approach		67	3.2	67	3.2	0.104	12.2	LOS B	0.1	1.0	0.61	0.77	0.61	27.6
North: Jonson St (N)														
7	L2	46	0.0	46	0.0	0.270	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	52.8
8	T1	520	1.5	520	1.5	0.270	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.9
Approach		566	1.4	566	1.4	0.270	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.3
All Vehicles		1192	1.5	1192	1.5	0.270	1.1	NA	0.1	1.0	0.06	0.09	0.06	52.8

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

MOVEMENT SUMMARY

Site: 4 [2021 BG SAT Access Sensitivity]

Network: N101 [2021 BG SAT]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	52	2.1	52	2.1	0.260	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	48.6
2	T1	493	1.1	493	1.1	0.260	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	47.3
Approach		544	1.2	544	1.2	0.260	0.4	NA	0.0	0.0	0.00	0.05	0.00	47.8
North: Jonson St (N)														
8	T1	505	1.7	505	1.7	0.242	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	72	0.0	72	0.0	0.070	4.8	LOS A	0.1	0.8	0.53	0.65	0.53	43.9
Approach		577	1.5	577	1.5	0.242	0.6	NA	0.1	0.8	0.07	0.08	0.07	47.5
West: Development Access (W)														
10	L2	81	2.7	81	2.7	0.134	6.7	LOS A	0.2	1.4	0.56	0.72	0.56	40.8
12	R2	14	0.0	14	0.0	0.134	18.4	LOS C	0.2	1.4	0.56	0.72	0.56	41.7
Approach		95	2.3	95	2.3	0.134	8.4	LOS A	0.2	1.4	0.56	0.72	0.56	41.0
All Vehicles		1216	1.4	1216	1.4	0.260	1.1	NA	0.2	1.4	0.07	0.12	0.07	46.0

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

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MOVEMENT SUMMARY

Site: 1 [2021 BG SAT Carlyle Sensitivity]

Network: N101 [2021 BG SAT]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	523	1.5	523	1.5	0.251	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	54	0.0	54	0.0	0.054	5.1	LOS A	0.1	0.6	0.53	0.67	0.53	35.1
Approach		577	1.4	577	1.4	0.251	0.5	NA	0.1	0.6	0.05	0.06	0.05	56.4
East: Carlyle St (E)														
4	L2	65	3.4	65	3.4	0.069	7.7	LOS A	0.1	0.7	0.49	0.69	0.49	30.8
6	R2	23	4.8	23	4.8	0.098	20.2	LOS C	0.1	0.9	0.81	0.92	0.81	24.9
Approach		88	3.8	88	3.8	0.098	11.0	LOS B	0.1	0.9	0.58	0.75	0.58	28.1
North: Jonson St (N)														
7	L2	51	4.3	51	4.3	0.271	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	52.0
8	T1	516	1.3	516	1.3	0.271	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.8
Approach		566	1.6	566	1.6	0.271	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.0
All Vehicles		1232	1.6	1232	1.6	0.271	1.2	NA	0.1	0.9	0.06	0.11	0.06	52.2

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

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MOVEMENT SUMMARY

Site: 4 [2021 DES AM Access Sensitivity]

Network: N101 [2021 DES AM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	14	0.0	14	0.0	0.321	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.0
2	T1	649	3.9	649	3.9	0.321	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.3
Approach		663	3.8	663	3.8	0.321	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.3
North: Jonson St (N)														
8	T1	441	4.8	441	4.8	0.216	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	33	0.0	33	0.0	0.038	5.6	LOS A	0.1	0.4	0.57	0.68	0.57	43.2
Approach		474	4.5	474	4.5	0.216	0.4	NA	0.1	0.4	0.04	0.05	0.04	48.1
West: Development Access (W)														
10	L2	62	3.4	62	3.4	0.121	7.8	LOS A	0.2	1.2	0.61	0.79	0.61	39.8
12	R2	9	0.0	9	0.0	0.121	20.7	LOS C	0.2	1.2	0.61	0.79	0.61	40.8
Approach		72	3.0	72	3.0	0.121	9.5	LOS A	0.2	1.2	0.61	0.79	0.61	40.0
All Vehicles		1208	4.0	1208	4.0	0.321	0.8	NA	0.2	1.2	0.05	0.07	0.05	46.7

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

MOVEMENT SUMMARY

Site: 1 [2021 DES AM Carlyle Sensitivity]

Network: N101 [2021 DES AM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	687	3.9	687	3.9	0.334	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	28	0.0	28	0.0	0.027	4.7	LOS A	0.0	0.3	0.50	0.61	0.50	36.0
Approach		716	3.7	716	3.7	0.334	0.2	NA	0.0	0.3	0.02	0.02	0.02	58.5
East: Carlyle St (E)														
4	L2	27	4.2	27	4.2	0.027	7.3	LOS A	0.0	0.3	0.44	0.63	0.44	31.5
6	R2	15	7.7	15	7.7	0.081	24.8	LOS C	0.1	0.8	0.85	0.94	0.85	22.2
Approach		42	5.4	42	5.4	0.081	13.4	LOS B	0.1	0.8	0.59	0.74	0.59	25.9
North: Jonson St (N)														
7	L2	65	1.7	65	1.7	0.245	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	51.7
8	T1	434	5.7	434	5.7	0.245	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	55.2
Approach		499	5.2	499	5.2	0.245	0.7	NA	0.0	0.0	0.00	0.08	0.00	54.4
All Vehicles		1257	4.4	1257	4.4	0.334	0.8	NA	0.1	0.8	0.03	0.07	0.03	54.3

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

MOVEMENT SUMMARY

Site: 4 [2021 DES PM Access Sensitivity]

Network: N101 [2021 DES PM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	68	0.0	68	0.0	0.260	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	48.5
2	T1	476	1.4	476	1.4	0.260	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	46.4
Approach		544	1.2	544	1.2	0.260	0.6	NA	0.0	0.0	0.00	0.07	0.00	47.3
North: Jonson St (N)														
8	T1	493	1.6	493	1.6	0.236	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	92	1.6	92	1.6	0.091	4.9	LOS A	0.2	1.1	0.53	0.67	0.53	43.8
Approach		584	1.6	584	1.6	0.236	0.8	NA	0.2	1.1	0.08	0.10	0.08	47.0
West: Development Access (W)														
10	L2	129	1.4	129	1.4	0.219	6.6	LOS A	0.3	2.4	0.57	0.74	0.57	40.6
12	R2	24	0.0	24	0.0	0.219	19.1	LOS C	0.3	2.4	0.57	0.74	0.57	41.5
Approach		154	1.2	154	1.2	0.219	8.6	LOS A	0.3	2.4	0.57	0.74	0.57	40.8
All Vehicles		1282	1.4	1282	1.4	0.260	1.6	NA	0.3	2.4	0.11	0.17	0.11	45.1

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

MOVEMENT SUMMARY

Site: 1 [2021 DES PM Carlyle Sensitivity]

Network: N101 [2021 DES PM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	558	1.5	558	1.5	0.268	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	54	0.0	54	0.0	0.056	5.2	LOS A	0.1	0.6	0.54	0.68	0.54	34.8
Approach		612	1.4	612	1.4	0.268	0.5	NA	0.1	0.6	0.05	0.06	0.05	56.5
East: Carlyle St (E)														
4	L2	45	2.6	45	2.6	0.049	7.8	LOS A	0.1	0.5	0.50	0.69	0.50	30.7
6	R2	25	4.3	25	4.3	0.118	21.9	LOS C	0.2	1.1	0.84	0.93	0.84	23.9
Approach		71	3.2	71	3.2	0.118	12.9	LOS B	0.2	1.1	0.62	0.78	0.62	26.7
North: Jonson St (N)														
7	L2	46	0.0	46	0.0	0.279	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	52.8
8	T1	539	1.5	539	1.5	0.279	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	57.0
Approach		585	1.4	585	1.4	0.279	0.4	NA	0.0	0.0	0.00	0.05	0.00	56.4
All Vehicles		1267	1.5	1267	1.5	0.279	1.1	NA	0.2	1.1	0.06	0.09	0.06	52.8

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

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MOVEMENT SUMMARY

Site: 4 [2021 DES SAT Access Sensitivity]

Network: N101 [2021 DES SAT]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	66	2.1	66	2.1	0.267	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	48.5
2	T1	493	1.1	493	1.1	0.267	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	46.7
Approach		559	1.2	559	1.2	0.267	0.5	NA	0.0	0.0	0.00	0.06	0.00	47.5
North: Jonson St (N)														
8	T1	505	1.7	505	1.7	0.243	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	95	0.0	95	0.0	0.095	5.0	LOS A	0.2	1.1	0.54	0.68	0.54	43.8
Approach		600	1.4	600	1.4	0.243	0.8	NA	0.2	1.1	0.09	0.11	0.09	47.0
West: Development Access (W)														
10	L2	133	2.7	133	2.7	0.210	6.8	LOS A	0.3	2.3	0.57	0.74	0.57	40.8
12	R2	19	0.0	19	0.0	0.210	20.0	LOS C	0.3	2.3	0.57	0.74	0.57	41.7
Approach		152	2.4	152	2.4	0.210	8.4	LOS A	0.3	2.3	0.57	0.74	0.57	40.9
All Vehicles		1311	1.4	1311	1.4	0.267	1.6	NA	0.3	2.3	0.11	0.16	0.11	45.3

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

MOVEMENT SUMMARY

Site: 1 [2021 DES SAT Carlyle Sensitivity]

Network: N101 [2021 DES SAT]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	576	1.5	576	1.5	0.277	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	57	0.0	57	0.0	0.059	5.2	LOS A	0.1	0.7	0.54	0.68	0.54	34.8
Approach		633	1.4	633	1.4	0.277	0.5	NA	0.1	0.7	0.05	0.06	0.05	56.4
East: Carlyle St (E)														
4	L2	67	3.4	67	3.4	0.073	7.9	LOS A	0.1	0.8	0.50	0.71	0.50	30.6
6	R2	23	4.8	23	4.8	0.113	22.7	LOS C	0.1	1.1	0.84	0.93	0.84	23.4
Approach		91	3.8	91	3.8	0.113	11.7	LOS B	0.1	1.1	0.59	0.76	0.59	27.2
North: Jonson St (N)														
7	L2	51	4.3	51	4.3	0.280	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	52.0
8	T1	536	1.3	536	1.3	0.280	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.9
Approach		586	1.6	586	1.6	0.280	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.1
All Vehicles		1309	1.6	1309	1.6	0.280	1.3	NA	0.1	1.1	0.06	0.11	0.06	52.2

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

MOVEMENT SUMMARY

Site: 4 [2031 BG AM Access Sensitivity]

Network: N101 [2031 BG AM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	12	0.0	12	0.0	0.403	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.1
2	T1	823	3.9	823	3.9	0.403	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.5
Approach		835	3.8	835	3.8	0.403	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.5
North: Jonson St (N)														
8	T1	560	4.8	560	4.8	0.274	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	26	0.0	26	0.0	0.041	7.3	LOS A	0.1	0.4	0.65	0.77	0.65	41.6
Approach		586	4.6	586	4.6	0.274	0.3	NA	0.1	0.4	0.03	0.03	0.03	48.3
West: Development Access (W)														
10	L2	32	3.4	32	3.4	0.089	9.5	LOS A	0.1	0.8	0.73	0.87	0.73	37.5
12	R2	4	0.0	4	0.0	0.089	34.7	LOS D	0.1	0.8	0.73	0.87	0.73	38.7
Approach		36	3.0	36	3.0	0.089	12.5	LOS B	0.1	0.8	0.73	0.87	0.73	37.6
All Vehicles		1457	4.1	1457	4.1	0.403	0.5	NA	0.1	0.8	0.03	0.04	0.03	47.6

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

MOVEMENT SUMMARY

Site: 1 [2031 BG AM Carlyle Sensitivity]

Network: N101 [2031 BG AM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	833	3.9	833	3.9	0.404	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	35	0.0	35	0.0	0.039	5.5	LOS A	0.1	0.4	0.56	0.68	0.56	34.2
Approach		867	3.7	867	3.7	0.404	0.2	NA	0.1	0.4	0.02	0.03	0.02	58.2
East: Carlyle St (E)														
4	L2	34	4.2	34	4.2	0.038	7.9	LOS A	0.1	0.4	0.50	0.69	0.50	30.5
6	R2	18	7.7	18	7.7	0.183	43.6	LOS E	0.2	1.6	0.93	0.98	0.96	15.4
Approach		52	5.4	52	5.4	0.183	20.3	LOS C	0.2	1.6	0.65	0.79	0.66	20.4
North: Jonson St (N)														
7	L2	82	1.7	82	1.7	0.306	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	51.6
8	T1	542	5.7	542	5.7	0.306	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	55.1
Approach		624	5.2	624	5.2	0.306	0.7	NA	0.0	0.0	0.00	0.08	0.00	54.3
All Vehicles		1543	4.4	1543	4.4	0.404	1.1	NA	0.2	1.6	0.03	0.07	0.03	53.1

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

MOVEMENT SUMMARY

Site: 4 [2031 BG PM Access Sensitivity]

Network: N101 [2031 BG PM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	49	0.0	49	0.0	0.311	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	48.8
2	T1	603	1.4	603	1.4	0.311	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	47.8
Approach		653	1.3	653	1.3	0.311	0.4	NA	0.0	0.0	0.00	0.04	0.00	48.1
North: Jonson St (N)														
8	T1	624	1.6	624	1.6	0.299	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	66	1.6	66	1.6	0.077	5.7	LOS A	0.1	0.9	0.58	0.71	0.58	43.1
Approach		691	1.6	691	1.6	0.299	0.5	NA	0.1	0.9	0.06	0.07	0.06	47.6
West: Development Access (W)														
10	L2	79	1.4	79	1.4	0.208	7.4	LOS A	0.3	2.1	0.66	0.82	0.66	38.3
12	R2	20	0.0	20	0.0	0.208	26.9	LOS D	0.3	2.1	0.66	0.82	0.66	39.5
Approach		99	1.1	99	1.1	0.208	11.3	LOS B	0.3	2.1	0.66	0.82	0.66	38.6
All Vehicles		1442	1.4	1442	1.4	0.311	1.2	NA	0.3	2.1	0.07	0.11	0.07	45.6

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

MOVEMENT SUMMARY

Site: 1 [2031 BG PM Carlyle Sensitivity]

Network: N101 [2031 BG PM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	642	1.5	642	1.5	0.307	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	64	0.0	64	0.0	0.081	6.3	LOS A	0.1	0.9	0.60	0.76	0.60	32.6
Approach		706	1.4	706	1.4	0.307	0.6	NA	0.1	0.9	0.05	0.07	0.05	55.9
East: Carlyle St (E)														
4	L2	54	2.6	54	2.6	0.068	8.7	LOS A	0.1	0.7	0.55	0.76	0.55	29.0
6	R2	33	4.3	33	4.3	0.239	34.7	LOS D	0.3	2.3	0.91	0.98	0.99	18.1
Approach		86	3.2	86	3.2	0.239	18.5	LOS C	0.3	2.3	0.69	0.84	0.72	21.9
North: Jonson St (N)														
7	L2	59	0.0	59	0.0	0.342	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	52.8
8	T1	658	1.5	658	1.5	0.342	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.9
Approach		717	1.4	717	1.4	0.342	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.3
All Vehicles		1509	1.5	1509	1.5	0.342	1.5	NA	0.3	2.3	0.06	0.10	0.07	50.8

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

MOVEMENT SUMMARY

Site: 4 [2031 BG SAT Access Sensitivity]

Network: N101 [2031 BG SAT]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	52	2.1	52	2.1	0.322	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	48.7
2	T1	624	1.1	624	1.1	0.322	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	47.8
Approach		676	1.2	676	1.2	0.322	0.4	NA	0.0	0.0	0.00	0.04	0.00	48.1
North: Jonson St (N)														
8	T1	641	1.7	641	1.7	0.307	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	72	0.0	72	0.0	0.085	5.8	LOS A	0.1	0.9	0.59	0.73	0.59	43.0
Approach		713	1.5	713	1.5	0.307	0.6	NA	0.1	0.9	0.06	0.07	0.06	47.5
West: Development Access (W)														
10	L2	81	2.7	81	2.7	0.184	7.6	LOS A	0.3	1.9	0.64	0.82	0.64	38.9
12	R2	14	0.0	14	0.0	0.184	28.9	LOS D	0.3	1.9	0.64	0.82	0.64	40.0
Approach		95	2.3	95	2.3	0.184	10.7	LOS B	0.3	1.9	0.64	0.82	0.64	39.1
All Vehicles		1483	1.4	1483	1.4	0.322	1.1	NA	0.3	1.9	0.07	0.11	0.07	45.8

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

MOVEMENT SUMMARY

Site: 1 [2031 BG SAT Carlyle Sensitivity]

Network: N101 [2031 BG SAT]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	662	1.5	662	1.5	0.317	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	68	0.0	68	0.0	0.086	6.3	LOS A	0.1	1.0	0.60	0.76	0.60	32.6
Approach		731	1.4	731	1.4	0.317	0.6	NA	0.1	1.0	0.06	0.07	0.06	55.7
East: Carlyle St (E)														
4	L2	82	3.4	82	3.4	0.104	8.8	LOS A	0.2	1.1	0.56	0.78	0.56	28.9
6	R2	29	4.8	29	4.8	0.226	35.6	LOS E	0.3	2.1	0.91	0.98	0.98	17.8
Approach		112	3.8	112	3.8	0.226	15.9	LOS C	0.3	2.1	0.65	0.83	0.67	23.0
North: Jonson St (N)														
7	L2	64	4.3	64	4.3	0.343	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	52.0
8	T1	653	1.3	653	1.3	0.343	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.8
Approach		717	1.6	717	1.6	0.343	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.0
All Vehicles		1559	1.6	1559	1.6	0.343	1.6	NA	0.3	2.1	0.07	0.12	0.07	50.4

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

MOVEMENT SUMMARY

Site: 4 [2031 DES AM Access Sensitivity]

Network: N101 [2031 DES AM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	14	0.0	14	0.0	0.404	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.0
2	T1	823	3.9	823	3.9	0.404	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.4
Approach		837	3.8	837	3.8	0.404	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
North: Jonson St (N)														
8	T1	560	4.8	560	4.8	0.274	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	33	0.0	33	0.0	0.051	7.4	LOS A	0.1	0.5	0.66	0.79	0.66	41.5
Approach		593	4.5	593	4.5	0.274	0.4	NA	0.1	0.5	0.04	0.04	0.04	48.0
West: Development Access (W)														
10	L2	62	3.4	62	3.4	0.185	9.7	LOS A	0.2	1.8	0.75	0.88	0.76	36.9
12	R2	9	0.0	9	0.0	0.185	36.4	LOS E	0.2	1.8	0.75	0.88	0.76	38.2
Approach		72	3.0	72	3.0	0.185	13.2	LOS B	0.2	1.8	0.75	0.88	0.76	37.1
All Vehicles		1501	4.1	1501	4.1	0.404	0.8	NA	0.2	1.8	0.05	0.06	0.05	46.2

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

MOVEMENT SUMMARY

Site: 1 [2031 DES AM Carlyle Sensitivity]

Network: N101 [2031 DES AM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	863	3.9	863	3.9	0.419	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	36	0.0	36	0.0	0.040	5.5	LOS A	0.1	0.4	0.56	0.69	0.56	34.1
Approach		899	3.7	899	3.7	0.419	0.2	NA	0.1	0.4	0.02	0.03	0.02	58.2
East: Carlyle St (E)														
4	L2	35	4.2	35	4.2	0.039	8.0	LOS A	0.1	0.4	0.51	0.69	0.51	30.4
6	R2	18	7.7	18	7.7	0.202	48.4	LOS E	0.2	1.8	0.94	0.98	0.98	14.3
Approach		53	5.4	53	5.4	0.202	21.7	LOS C	0.2	1.8	0.65	0.79	0.67	19.4
North: Jonson St (N)														
7	L2	82	1.7	82	1.7	0.309	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	51.7
8	T1	547	5.7	547	5.7	0.309	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	55.2
Approach		629	5.2	629	5.2	0.309	0.7	NA	0.0	0.0	0.00	0.08	0.00	54.4
All Vehicles		1581	4.4	1581	4.4	0.419	1.1	NA	0.2	1.8	0.03	0.07	0.03	52.9

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

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MOVEMENT SUMMARY

Site: 4 [2031 DES PM Access Sensitivity]

Network: N101 [2031 DES PM]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	68	0.0	68	0.0	0.321	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	48.6
2	T1	603	1.4	603	1.4	0.321	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	47.0
Approach		672	1.3	672	1.3	0.321	0.5	NA	0.0	0.0	0.00	0.06	0.00	47.7
North: Jonson St (N)														
8	T1	624	1.6	624	1.6	0.300	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	92	1.6	92	1.6	0.109	5.9	LOS A	0.2	1.3	0.59	0.75	0.59	42.9
Approach		716	1.6	716	1.6	0.300	0.8	NA	0.2	1.3	0.08	0.10	0.08	47.0
West: Development Access (W)														
10	L2	129	1.4	129	1.4	0.300	8.3	LOS A	0.5	3.5	0.66	0.89	0.78	38.0
12	R2	24	0.0	24	0.0	0.300	30.3	LOS D	0.5	3.5	0.66	0.89	0.78	39.2
Approach		154	1.2	154	1.2	0.300	11.7	LOS B	0.5	3.5	0.66	0.89	0.78	38.2
All Vehicles		1541	1.4	1541	1.4	0.321	1.7	NA	0.5	3.5	0.10	0.16	0.11	44.5

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

MOVEMENT SUMMARY

Site: 1 [2031 DES PM Carlyle Sensitivity]

Network: N101 [2031 DES PM]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	693	1.5	693	1.5	0.332	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	67	0.0	67	0.0	0.088	6.5	LOS A	0.1	1.0	0.61	0.77	0.61	32.3
Approach		760	1.4	760	1.4	0.332	0.6	NA	0.1	1.0	0.05	0.07	0.05	55.9
East: Carlyle St (E)														
4	L2	57	2.6	57	2.6	0.074	8.9	LOS A	0.1	0.8	0.56	0.77	0.56	28.8
6	R2	33	4.3	33	4.3	0.277	40.5	LOS E	0.4	2.6	0.93	0.99	1.03	16.3
Approach		89	3.2	89	3.2	0.277	20.4	LOS C	0.4	2.6	0.69	0.85	0.73	20.5
North: Jonson St (N)														
7	L2	59	0.0	59	0.0	0.351	5.5	LOS A	0.0	0.0	0.00	0.05	0.00	52.8
8	T1	677	1.5	677	1.5	0.351	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	57.0
Approach		736	1.4	736	1.4	0.351	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.4
All Vehicles		1585	1.5	1585	1.5	0.351	1.6	NA	0.4	2.6	0.06	0.10	0.07	50.4

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

MOVEMENT SUMMARY

Site: 4 [2031 DES SAT Access Sensitivity]

Network: N101 [2031 DES SAT]

Jonson Street / Development Access
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
1	L2	66	2.1	66	2.1	0.330	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	48.6
2	T1	624	1.1	624	1.1	0.330	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	47.2
Approach		691	1.2	691	1.2	0.330	0.4	NA	0.0	0.0	0.00	0.05	0.00	47.8
North: Jonson St (N)														
8	T1	641	1.7	641	1.7	0.308	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
9	R2	95	0.0	95	0.0	0.115	6.0	LOS A	0.2	1.3	0.60	0.76	0.60	42.8
Approach		736	1.5	736	1.5	0.308	0.8	NA	0.2	1.3	0.08	0.10	0.08	46.9
West: Development Access (W)														
10	L2	133	2.7	133	2.7	0.287	8.3	LOS A	0.5	3.3	0.66	0.88	0.76	38.3
12	R2	19	0.0	19	0.0	0.287	32.3	LOS D	0.5	3.3	0.66	0.88	0.76	39.5
Approach		152	2.4	152	2.4	0.287	11.3	LOS B	0.5	3.3	0.66	0.88	0.76	38.5
All Vehicles		1578	1.4	1578	1.4	0.330	1.6	NA	0.5	3.3	0.10	0.15	0.11	44.7

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

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MOVEMENT SUMMARY

Site: 1 [2031 DES SAT Carlyle Sensitivity]

Network: N101 [2031 DES SAT]

Jonson Street / Carlyle Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Jonson St (S)														
2	T1	715	1.5	715	1.5	0.342	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	72	0.0	72	0.0	0.093	6.5	LOS A	0.1	1.0	0.61	0.78	0.61	32.2
Approach		786	1.4	786	1.4	0.342	0.6	NA	0.1	1.0	0.06	0.07	0.06	55.7
East: Carlyle St (E)														
4	L2	84	3.4	84	3.4	0.110	9.0	LOS A	0.2	1.2	0.57	0.79	0.57	28.6
6	R2	29	4.8	29	4.8	0.265	42.3	LOS E	0.3	2.5	0.93	0.99	1.02	15.8
Approach		114	3.8	114	3.8	0.265	17.6	LOS C	0.3	2.5	0.66	0.85	0.69	21.5
North: Jonson St (N)														
7	L2	64	4.3	64	4.3	0.352	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	52.0
8	T1	673	1.3	673	1.3	0.352	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	56.8
Approach		737	1.6	737	1.6	0.352	0.5	NA	0.0	0.0	0.00	0.05	0.00	56.1
All Vehicles		1637	1.6	1637	1.6	0.352	1.7	NA	0.3	2.5	0.07	0.12	0.07	50.0

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

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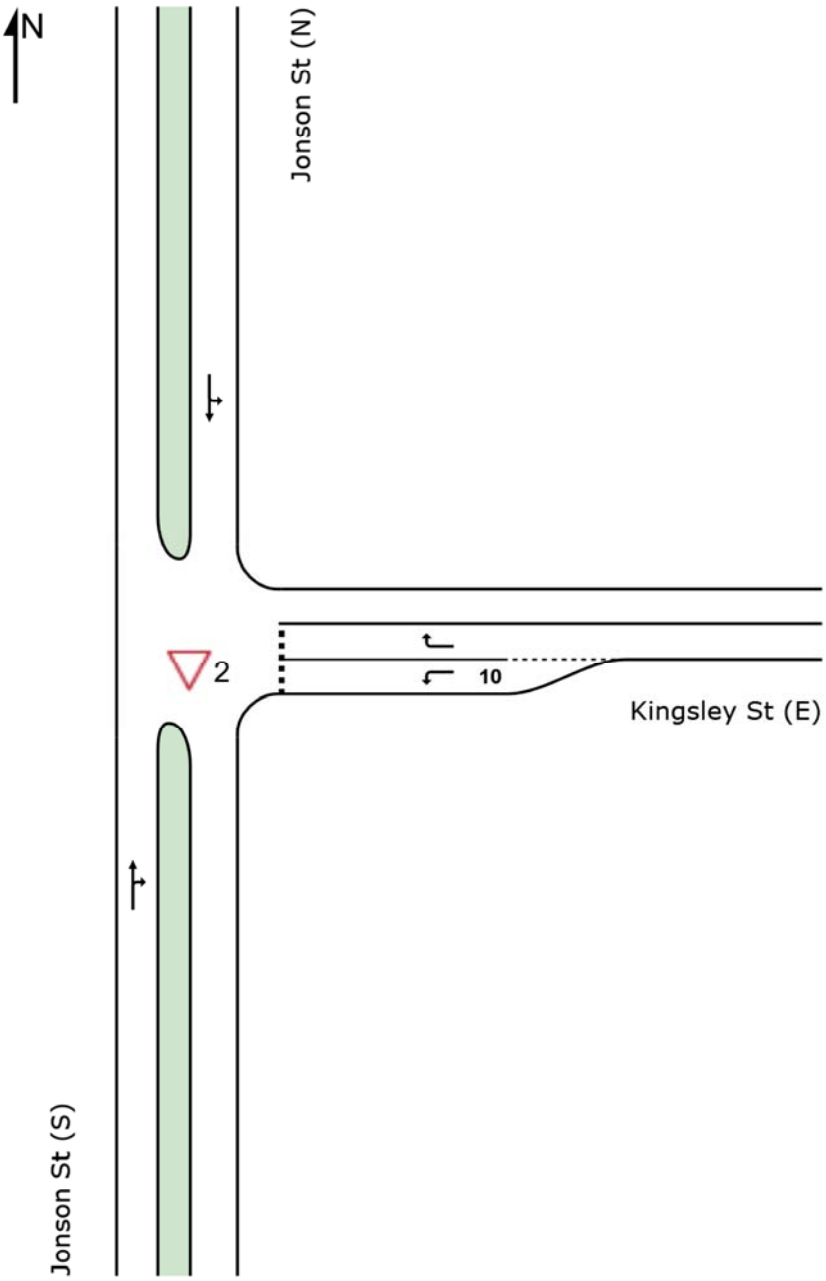
SITE LAYOUT

Site: 2 [2021 BG AM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 2 [2021 BG AM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	633	3.9	0.341	0.2	LOS A	0.4	2.9	0.06	0.02	0.06	49.0
3	R2	19	38.9	0.341	8.5	LOS A	0.4	2.9	0.06	0.02	0.06	42.3
Approach		652	4.9	0.341	0.5	NA	0.4	2.9	0.06	0.02	0.06	48.8
East: Kingsley St (E)												
4	L2	9	22.2	0.009	6.1	LOS A	0.0	0.3	0.42	0.55	0.42	32.4
6	R2	18	11.8	0.054	13.4	LOS B	0.2	1.2	0.74	0.88	0.74	24.9
Approach		27	15.4	0.054	10.9	LOS B	0.2	1.2	0.63	0.77	0.63	27.2
North: Jonson St (N)												
7	L2	51	14.6	0.205	4.7	LOS A	0.0	0.0	0.00	0.07	0.00	27.4
8	T1	362	4.4	0.205	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.8
Approach		413	5.6	0.205	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.4
All Vehicles		1092	5.5	0.341	0.8	NA	0.4	2.9	0.05	0.05	0.05	46.8

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

MOVEMENT SUMMARY

Site: 2 [2021 BG PM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	493	3.3	0.264	0.2	LOS A	0.3	1.9	0.06	0.02	0.06	48.9
3	R2	16	6.7	0.264	8.3	LOS A	0.3	1.9	0.06	0.02	0.06	43.5
Approach		508	3.4	0.264	0.5	NA	0.3	1.9	0.06	0.02	0.06	48.7
East: Kingsley St (E)												
4	L2	1	0.0	0.001	6.3	LOS A	0.0	0.0	0.46	0.53	0.46	34.7
6	R2	38	0.0	0.094	11.8	LOS B	0.3	2.0	0.71	0.87	0.71	27.2
Approach		39	0.0	0.094	11.6	LOS B	0.3	2.0	0.70	0.86	0.70	27.4
North: Jonson St (N)												
7	L2	88	10.8	0.283	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	27.4
8	T1	491	1.3	0.283	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		579	2.8	0.283	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.4
All Vehicles		1126	3.0	0.283	1.0	NA	0.3	2.0	0.05	0.08	0.05	45.5

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

MOVEMENT SUMMARY

Site: 2 [2021 BG SAT]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	536	0.8	0.282	0.2	LOS A	0.3	1.8	0.06	0.02	0.06	49.0
3	R2	19	0.0	0.282	7.3	LOS A	0.3	1.8	0.06	0.02	0.06	43.9
Approach		555	0.8	0.282	0.4	NA	0.3	1.8	0.06	0.02	0.06	48.9
East: Kingsley St (E)												
4	L2	24	0.0	0.022	6.1	LOS A	0.1	0.6	0.43	0.59	0.43	34.9
6	R2	40	0.0	0.095	11.4	LOS B	0.3	2.0	0.69	0.86	0.69	27.5
Approach		64	0.0	0.095	9.4	LOS A	0.3	2.0	0.60	0.76	0.60	30.0
North: Jonson St (N)												
7	L2	63	0.0	0.237	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	27.6
8	T1	431	0.7	0.237	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.6
Approach		494	0.6	0.237	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.2
All Vehicles		1113	0.7	0.282	1.0	NA	0.3	2.0	0.06	0.08	0.06	45.9

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

MOVEMENT SUMMARY

Site: 2 [2021 DES AM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	635	3.9	0.343	0.2	LOS A	0.4	2.9	0.06	0.02	0.07	49.0
3	R2	19	38.9	0.343	8.6	LOS A	0.4	2.9	0.06	0.02	0.07	42.3
Approach		654	4.9	0.343	0.5	NA	0.4	2.9	0.06	0.02	0.07	48.8
East: Kingsley St (E)												
4	L2	9	22.2	0.010	6.1	LOS A	0.0	0.3	0.42	0.56	0.42	32.4
6	R2	19	11.8	0.058	13.6	LOS B	0.2	1.3	0.74	0.88	0.74	24.8
Approach		28	15.3	0.058	11.1	LOS B	0.2	1.3	0.63	0.77	0.63	27.0
North: Jonson St (N)												
7	L2	52	14.6	0.208	4.7	LOS A	0.0	0.0	0.00	0.07	0.00	27.4
8	T1	367	4.4	0.208	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.8
Approach		419	5.7	0.208	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.4
All Vehicles		1101	5.5	0.343	0.8	NA	0.4	2.9	0.05	0.05	0.06	46.7

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

MOVEMENT SUMMARY

Site: 2 [2021 DES PM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	509	3.3	0.273	0.2	LOS A	0.3	1.9	0.06	0.02	0.06	48.9
3	R2	16	6.7	0.273	8.5	LOS A	0.3	1.9	0.06	0.02	0.06	43.5
Approach		525	3.4	0.273	0.5	NA	0.3	1.9	0.06	0.02	0.06	48.7
East: Kingsley St (E)												
4	L2	1	0.0	0.001	6.3	LOS A	0.0	0.0	0.46	0.53	0.46	34.7
6	R2	39	0.0	0.099	12.1	LOS B	0.3	2.1	0.72	0.87	0.72	26.9
Approach		40	0.0	0.099	11.9	LOS B	0.3	2.1	0.71	0.86	0.71	27.1
North: Jonson St (N)												
7	L2	89	10.8	0.285	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	27.4
8	T1	495	1.3	0.285	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		584	2.8	0.285	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.3
All Vehicles		1149	3.0	0.285	1.0	NA	0.3	2.1	0.05	0.08	0.05	45.5

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

MOVEMENT SUMMARY

Site: 2 [2021 DES SAT]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	549	0.8	0.288	0.2	LOS A	0.3	1.8	0.06	0.02	0.06	49.0
3	R2	19	0.0	0.288	7.4	LOS A	0.3	1.8	0.06	0.02	0.06	44.0
Approach		568	0.8	0.288	0.4	NA	0.3	1.8	0.06	0.02	0.06	48.9
East: Kingsley St (E)												
4	L2	24	0.0	0.023	6.1	LOS A	0.1	0.6	0.43	0.59	0.43	34.9
6	R2	41	0.0	0.100	11.7	LOS B	0.3	2.2	0.70	0.87	0.70	27.3
Approach		65	0.0	0.100	9.6	LOS A	0.3	2.2	0.60	0.76	0.60	29.8
North: Jonson St (N)												
7	L2	63	0.0	0.239	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	27.6
8	T1	435	0.7	0.239	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.6
Approach		498	0.6	0.239	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.2
All Vehicles		1132	0.7	0.288	1.0	NA	0.3	2.2	0.06	0.08	0.06	45.9

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

MOVEMENT SUMMARY

Site: 2 [2031 BG AM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	665	3.9	0.360	0.3	LOS A	0.5	3.3	0.06	0.02	0.07	48.9
3	R2	20	38.9	0.360	8.9	LOS A	0.5	3.3	0.06	0.02	0.07	42.2
Approach		685	4.9	0.360	0.5	NA	0.5	3.3	0.06	0.02	0.07	48.7
East: Kingsley St (E)												
4	L2	11	22.2	0.011	6.2	LOS A	0.0	0.3	0.43	0.56	0.43	32.4
6	R2	19	11.8	0.063	14.6	LOS B	0.2	1.4	0.76	0.89	0.76	24.0
Approach		29	15.5	0.063	11.6	LOS B	0.2	1.4	0.64	0.77	0.64	26.6
North: Jonson St (N)												
7	L2	54	14.6	0.216	4.7	LOS A	0.0	0.0	0.00	0.07	0.00	27.4
8	T1	381	4.4	0.216	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.8
Approach		435	5.7	0.216	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.4
All Vehicles		1149	5.5	0.360	0.8	NA	0.5	3.3	0.05	0.05	0.06	46.6

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

MOVEMENT SUMMARY

Site: 2 [2031 BG PM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	517	3.3	0.278	0.3	LOS A	0.3	2.2	0.06	0.02	0.07	48.7
3	R2	17	6.7	0.278	8.7	LOS A	0.3	2.2	0.06	0.02	0.07	43.4
Approach		534	3.4	0.278	0.5	NA	0.3	2.2	0.06	0.02	0.07	48.6
East: Kingsley St (E)												
4	L2	1	0.0	0.001	6.4	LOS A	0.0	0.0	0.47	0.53	0.47	34.6
6	R2	40	0.0	0.107	12.6	LOS B	0.3	2.3	0.73	0.88	0.73	26.4
Approach		41	0.0	0.107	12.4	LOS B	0.3	2.3	0.73	0.87	0.73	26.6
North: Jonson St (N)												
7	L2	93	10.8	0.297	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	27.4
8	T1	515	1.3	0.297	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		607	2.7	0.297	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.4
All Vehicles		1182	3.0	0.297	1.0	NA	0.3	2.3	0.05	0.08	0.06	45.4

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

MOVEMENT SUMMARY

Site: 2 [2031 BG SAT]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	563	0.8	0.297	0.2	LOS A	0.3	2.1	0.06	0.02	0.06	48.9
3	R2	20	0.0	0.297	7.6	LOS A	0.3	2.1	0.06	0.02	0.06	43.9
Approach		583	0.8	0.297	0.4	NA	0.3	2.1	0.06	0.02	0.06	48.8
East: Kingsley St (E)												
4	L2	25	0.0	0.024	6.2	LOS A	0.1	0.6	0.44	0.60	0.44	34.8
6	R2	42	0.0	0.108	12.2	LOS B	0.3	2.3	0.72	0.87	0.72	26.8
Approach		67	0.0	0.108	9.9	LOS A	0.3	2.3	0.62	0.77	0.62	29.4
North: Jonson St (N)												
7	L2	66	0.0	0.249	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	27.6
8	T1	453	0.7	0.249	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.6
Approach		519	0.6	0.249	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.2
All Vehicles		1169	0.7	0.297	1.1	NA	0.3	2.3	0.07	0.09	0.07	45.8

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

MOVEMENT SUMMARY

Site: 2 [2031 DES AM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	667	3.9	0.361	0.3	LOS A	0.5	3.4	0.06	0.02	0.07	48.9
3	R2	20	38.9	0.361	9.0	LOS A	0.5	3.4	0.06	0.02	0.07	42.2
Approach		687	4.9	0.361	0.5	NA	0.5	3.4	0.06	0.02	0.07	48.7
East: Kingsley St (E)												
4	L2	11	22.2	0.011	6.3	LOS A	0.0	0.3	0.43	0.57	0.43	32.4
6	R2	20	11.8	0.067	14.7	LOS B	0.2	1.5	0.77	0.89	0.77	23.9
Approach		31	15.4	0.067	11.8	LOS B	0.2	1.5	0.65	0.78	0.65	26.4
North: Jonson St (N)												
7	L2	55	14.6	0.219	4.7	LOS A	0.0	0.0	0.00	0.07	0.00	27.4
8	T1	386	4.4	0.219	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.8
Approach		441	5.7	0.219	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.3
All Vehicles		1159	5.5	0.361	0.9	NA	0.5	3.4	0.05	0.06	0.06	46.6

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

MOVEMENT SUMMARY

Site: 2 [2031 DES PM]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	534	3.3	0.287	0.3	LOS A	0.3	2.3	0.06	0.02	0.07	48.7
3	R2	17	6.7	0.287	8.9	LOS A	0.3	2.3	0.06	0.02	0.07	43.4
Approach		551	3.4	0.287	0.5	NA	0.3	2.3	0.06	0.02	0.07	48.6
East: Kingsley St (E)												
4	L2	1	0.0	0.001	6.4	LOS A	0.0	0.0	0.47	0.53	0.47	34.6
6	R2	41	0.0	0.113	12.9	LOS B	0.3	2.4	0.74	0.88	0.74	26.1
Approach		42	0.0	0.113	12.7	LOS B	0.3	2.4	0.74	0.87	0.74	26.3
North: Jonson St (N)												
7	L2	94	10.8	0.299	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	27.4
8	T1	519	1.3	0.299	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		613	2.8	0.299	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.4
All Vehicles		1205	3.0	0.299	1.1	NA	0.3	2.4	0.05	0.08	0.06	45.4

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

MOVEMENT SUMMARY

Site: 2 [2031 DES SAT]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

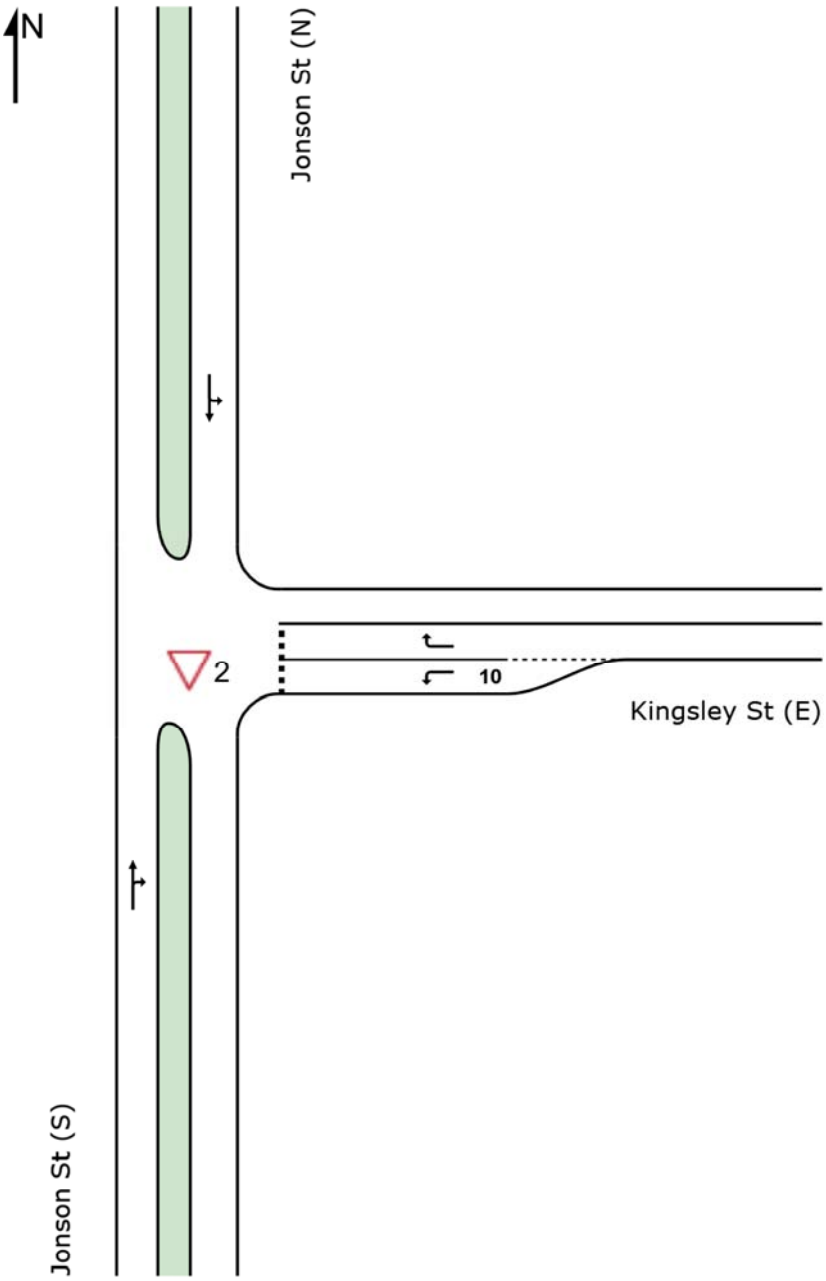
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	577	0.8	0.304	0.2	LOS A	0.3	2.1	0.06	0.02	0.07	48.9
3	R2	20	0.0	0.304	7.6	LOS A	0.3	2.1	0.06	0.02	0.07	43.9
Approach		597	0.8	0.304	0.4	NA	0.3	2.1	0.06	0.02	0.07	48.8
East: Kingsley St (E)												
4	L2	25	0.0	0.024	6.2	LOS A	0.1	0.6	0.45	0.60	0.45	34.8
6	R2	43	0.0	0.114	12.5	LOS B	0.3	2.4	0.73	0.88	0.73	26.5
Approach		68	0.0	0.114	10.2	LOS B	0.3	2.4	0.63	0.78	0.63	29.2
North: Jonson St (N)												
7	L2	66	0.0	0.251	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	27.6
8	T1	457	0.7	0.251	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.6
Approach		523	0.6	0.251	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.2
All Vehicles		1188	0.7	0.304	1.1	NA	0.3	2.4	0.07	0.08	0.07	45.8

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

SITE LAYOUT

Site: 2 [2021 BG AM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 2 [2021 BG AM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	524	3.9	0.295	0.4	LOS A	0.5	3.6	0.09	0.02	0.10	48.4
3	R2	23	38.9	0.295	9.1	LOS A	0.5	3.6	0.09	0.02	0.10	41.8
Approach		547	5.4	0.295	0.8	NA	0.5	3.6	0.09	0.02	0.10	48.1
East: Kingsley St (E)												
4	L2	28	22.2	0.030	6.5	LOS A	0.1	0.9	0.45	0.61	0.45	32.2
6	R2	21	11.8	0.057	12.3	LOS B	0.2	1.3	0.71	0.87	0.71	25.9
Approach		49	17.8	0.057	9.0	LOS A	0.2	1.3	0.56	0.72	0.56	29.3
North: Jonson St (N)												
7	L2	68	14.6	0.239	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	27.4
8	T1	411	4.4	0.239	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.6
Approach		479	5.9	0.239	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.7
All Vehicles		1076	6.2	0.295	1.1	NA	0.5	3.6	0.07	0.08	0.07	45.5

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

MOVEMENT SUMMARY

Site: 2 [2021 BG PM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	448	3.3	0.242	0.2	LOS A	0.2	1.7	0.06	0.02	0.06	48.8
3	R2	16	6.7	0.242	8.2	LOS A	0.2	1.7	0.06	0.02	0.06	43.5
Approach		464	3.4	0.242	0.5	NA	0.2	1.7	0.06	0.02	0.06	48.6
East: Kingsley St (E)												
4	L2	63	0.0	0.062	6.5	LOS A	0.2	1.6	0.47	0.65	0.47	34.6
6	R2	52	0.0	0.120	11.3	LOS B	0.4	2.6	0.69	0.86	0.69	27.7
Approach		115	0.0	0.120	8.6	LOS A	0.4	2.6	0.57	0.74	0.57	31.2
North: Jonson St (N)												
7	L2	91	10.8	0.281	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	27.4
8	T1	485	1.3	0.281	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		576	2.8	0.281	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.2
All Vehicles		1155	2.8	0.281	1.4	NA	0.4	2.6	0.08	0.12	0.08	44.4

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

MOVEMENT SUMMARY

Site: 2 [2021 BG SAT - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	541	0.8	0.284	0.2	LOS A	0.3	1.8	0.06	0.02	0.06	49.0
3	R2	19	0.0	0.284	7.4	LOS A	0.3	1.8	0.06	0.02	0.06	43.9
Approach		560	0.8	0.284	0.4	NA	0.3	1.8	0.06	0.02	0.06	48.9
East: Kingsley St (E)												
4	L2	25	0.0	0.024	6.1	LOS A	0.1	0.6	0.44	0.59	0.44	34.9
6	R2	41	0.0	0.099	11.6	LOS B	0.3	2.1	0.70	0.86	0.70	27.4
Approach		66	0.0	0.099	9.5	LOS A	0.3	2.1	0.60	0.76	0.60	29.9
North: Jonson St (N)												
7	L2	63	0.0	0.240	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	27.6
8	T1	437	0.7	0.240	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.6
Approach		500	0.6	0.240	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.2
All Vehicles		1126	0.7	0.284	1.0	NA	0.3	2.1	0.06	0.08	0.06	45.9

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

MOVEMENT SUMMARY

Site: 2 [2021 DES AM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	676	3.9	0.376	0.4	LOS A	0.7	4.9	0.08	0.02	0.10	48.5
3	R2	28	38.9	0.376	9.0	LOS A	0.7	4.9	0.08	0.02	0.10	41.8
Approach		704	5.3	0.376	0.7	NA	0.7	4.9	0.08	0.02	0.10	48.2
East: Kingsley St (E)												
4	L2	18	22.2	0.019	6.3	LOS A	0.1	0.6	0.44	0.59	0.44	32.3
6	R2	31	11.8	0.107	15.4	LOS C	0.3	2.4	0.78	0.90	0.78	23.4
Approach		48	15.6	0.107	12.1	LOS B	0.3	2.4	0.66	0.78	0.66	26.2
North: Jonson St (N)												
7	L2	37	14.6	0.215	4.7	LOS A	0.0	0.0	0.00	0.05	0.00	27.6
8	T1	397	4.4	0.215	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	49.1
Approach		434	5.3	0.215	0.4	NA	0.0	0.0	0.00	0.05	0.00	46.7
All Vehicles		1186	5.7	0.376	1.1	NA	0.7	4.9	0.08	0.06	0.09	46.4

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

MOVEMENT SUMMARY

Site: 2 [2021 DES PM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	575	3.3	0.305	0.2	LOS A	0.3	2.1	0.05	0.01	0.06	48.9
3	R2	15	6.7	0.305	9.1	LOS A	0.3	2.1	0.05	0.01	0.06	43.6
Approach		589	3.4	0.305	0.5	NA	0.3	2.1	0.05	0.01	0.06	48.8
East: Kingsley St (E)												
4	L2	45	0.0	0.050	7.0	LOS A	0.2	1.3	0.51	0.68	0.51	34.0
6	R2	52	0.0	0.158	14.2	LOS B	0.5	3.4	0.78	0.90	0.78	25.0
Approach		97	0.0	0.158	10.8	LOS B	0.5	3.4	0.65	0.80	0.65	28.6
North: Jonson St (N)												
7	L2	48	10.8	0.301	4.7	LOS A	0.0	0.0	0.00	0.04	0.00	27.7
8	T1	574	1.3	0.301	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.2
Approach		622	2.0	0.301	0.4	NA	0.0	0.0	0.00	0.04	0.00	47.0
All Vehicles		1308	2.5	0.305	1.2	NA	0.5	3.4	0.07	0.09	0.08	46.0

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

MOVEMENT SUMMARY

Site: 2 [2021 DES SAT - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	563	0.8	0.284	0.0	LOS A	0.1	0.6	0.02	0.01	0.02	49.6
3	R2	7	0.0	0.284	6.8	LOS A	0.1	0.6	0.02	0.01	0.02	44.6
Approach		571	0.8	0.284	0.1	NA	0.1	0.6	0.02	0.01	0.02	49.6
East: Kingsley St (E)												
4	L2	23	0.0	0.021	5.9	LOS A	0.1	0.5	0.41	0.58	0.41	35.0
6	R2	32	0.0	0.073	11.0	LOS B	0.2	1.6	0.68	0.85	0.68	27.9
Approach		55	0.0	0.073	8.8	LOS A	0.2	1.6	0.57	0.74	0.57	30.6
North: Jonson St (N)												
7	L2	34	0.0	0.207	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	27.8
8	T1	399	0.7	0.207	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.1
Approach		433	0.6	0.207	0.4	NA	0.0	0.0	0.00	0.04	0.00	47.0
All Vehicles		1058	0.7	0.284	0.7	NA	0.2	1.6	0.04	0.06	0.04	47.3

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

MOVEMENT SUMMARY

Site: 2 [2031 BG AM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	664	3.9	0.381	0.8	LOS A	1.0	7.0	0.12	0.02	0.16	47.3
3	R2	28	38.9	0.381	11.9	LOS B	1.0	7.0	0.12	0.02	0.16	40.8
Approach		693	5.3	0.381	1.2	NA	1.0	7.0	0.12	0.02	0.16	47.1
East: Kingsley St (E)												
4	L2	36	22.2	0.044	7.3	LOS A	0.2	1.4	0.51	0.67	0.51	31.2
6	R2	27	11.8	0.118	18.4	LOS C	0.3	2.6	0.83	0.92	0.83	21.5
Approach		63	17.7	0.118	12.1	LOS B	0.3	2.6	0.65	0.78	0.65	26.2
North: Jonson St (N)												
7	L2	86	14.6	0.303	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	27.4
8	T1	521	4.4	0.303	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.6
Approach		607	5.8	0.303	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.7
All Vehicles		1363	6.1	0.381	1.5	NA	1.0	7.0	0.09	0.08	0.11	44.7

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

MOVEMENT SUMMARY

Site: 2 [2031 BG PM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	568	3.3	0.313	0.5	LOS A	0.5	3.6	0.09	0.02	0.11	48.1
3	R2	20	6.7	0.313	10.6	LOS B	0.5	3.6	0.09	0.02	0.11	42.7
Approach		588	3.4	0.313	0.8	NA	0.5	3.6	0.09	0.02	0.11	47.9
East: Kingsley St (E)												
4	L2	81	0.0	0.095	7.3	LOS A	0.4	2.5	0.54	0.73	0.54	33.4
6	R2	65	0.0	0.231	16.9	LOS C	0.7	5.1	0.82	0.94	0.90	23.0
Approach		146	0.0	0.231	11.6	LOS B	0.7	5.1	0.66	0.82	0.70	27.9
North: Jonson St (N)												
7	L2	115	10.8	0.357	4.7	LOS A	0.0	0.0	0.00	0.09	0.00	27.3
8	T1	615	1.3	0.357	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	48.4
Approach		729	2.8	0.357	0.7	NA	0.0	0.0	0.00	0.09	0.00	44.2
All Vehicles		1464	2.8	0.357	1.9	NA	0.7	5.1	0.10	0.13	0.11	43.5

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

MOVEMENT SUMMARY

Site: 2 [2031 BG SAT - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	686	0.8	0.365	0.3	LOS A	0.5	3.6	0.08	0.02	0.10	48.5
3	R2	24	0.0	0.365	9.2	LOS A	0.5	3.6	0.08	0.02	0.10	43.4
Approach		711	0.8	0.365	0.6	NA	0.5	3.6	0.08	0.02	0.10	48.3
East: Kingsley St (E)												
4	L2	32	0.0	0.034	6.8	LOS A	0.1	0.9	0.50	0.65	0.50	34.2
6	R2	52	0.0	0.195	17.4	LOS C	0.6	4.2	0.83	0.93	0.87	22.7
Approach		83	0.0	0.195	13.3	LOS B	0.6	4.2	0.70	0.83	0.73	26.2
North: Jonson St (N)												
7	L2	81	0.0	0.305	4.6	LOS A	0.0	0.0	0.00	0.07	0.00	27.6
8	T1	554	0.7	0.305	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	48.6
Approach		635	0.6	0.305	0.6	NA	0.0	0.0	0.00	0.07	0.00	45.2
All Vehicles		1428	0.7	0.365	1.4	NA	0.6	4.2	0.08	0.09	0.09	45.1

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

MOVEMENT SUMMARY

Site: 2 [2031 DES AM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	906	3.9	0.514	0.9	LOS A	1.6	11.4	0.13	0.02	0.20	47.0
3	R2	38	38.9	0.514	13.0	LOS B	1.6	11.4	0.13	0.02	0.20	40.5
Approach		944	5.3	0.514	1.4	NA	1.6	11.4	0.13	0.02	0.20	46.8
East: Kingsley St (E)												
4	L2	24	22.2	0.030	7.3	LOS A	0.1	0.9	0.51	0.66	0.51	31.2
6	R2	40	11.8	0.314	35.1	LOS E	0.9	7.1	0.93	1.00	1.05	14.6
Approach		64	15.7	0.314	24.6	LOS C	0.9	7.1	0.77	0.87	0.85	18.5
North: Jonson St (N)												
7	L2	48	14.6	0.283	4.7	LOS A	0.0	0.0	0.00	0.05	0.00	27.6
8	T1	524	4.4	0.283	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	49.1
Approach		573	5.3	0.283	0.4	NA	0.0	0.0	0.00	0.05	0.00	46.7
All Vehicles		1581	5.7	0.514	2.0	NA	1.6	11.4	0.11	0.07	0.15	44.6

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

MOVEMENT SUMMARY

Site: 2 [2031 DES PM - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	762	3.3	0.415	0.6	LOS A	0.8	5.5	0.09	0.02	0.13	47.7
3	R2	20	6.7	0.415	13.7	LOS B	0.8	5.5	0.09	0.02	0.13	42.4
Approach		782	3.4	0.415	1.0	NA	0.8	5.5	0.09	0.02	0.13	47.6
East: Kingsley St (E)												
4	L2	61	0.0	0.089	8.6	LOS A	0.3	2.2	0.61	0.81	0.61	31.8
6	R2	68	0.0	0.429	31.7	LOS D	1.4	9.6	0.93	1.03	1.16	15.9
Approach		129	0.0	0.429	20.8	LOS C	1.4	9.6	0.77	0.92	0.90	21.0
North: Jonson St (N)												
7	L2	64	10.8	0.402	4.7	LOS A	0.0	0.0	0.00	0.04	0.00	27.7
8	T1	765	1.3	0.402	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.2
Approach		829	2.0	0.402	0.4	NA	0.0	0.0	0.00	0.04	0.00	47.0
All Vehicles		1741	2.5	0.429	2.2	NA	1.4	9.6	0.10	0.10	0.13	44.0

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

MOVEMENT SUMMARY

Site: 2 [2031 DES SAT - Sensitivity Test]

Jonson Street / Kingsley Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

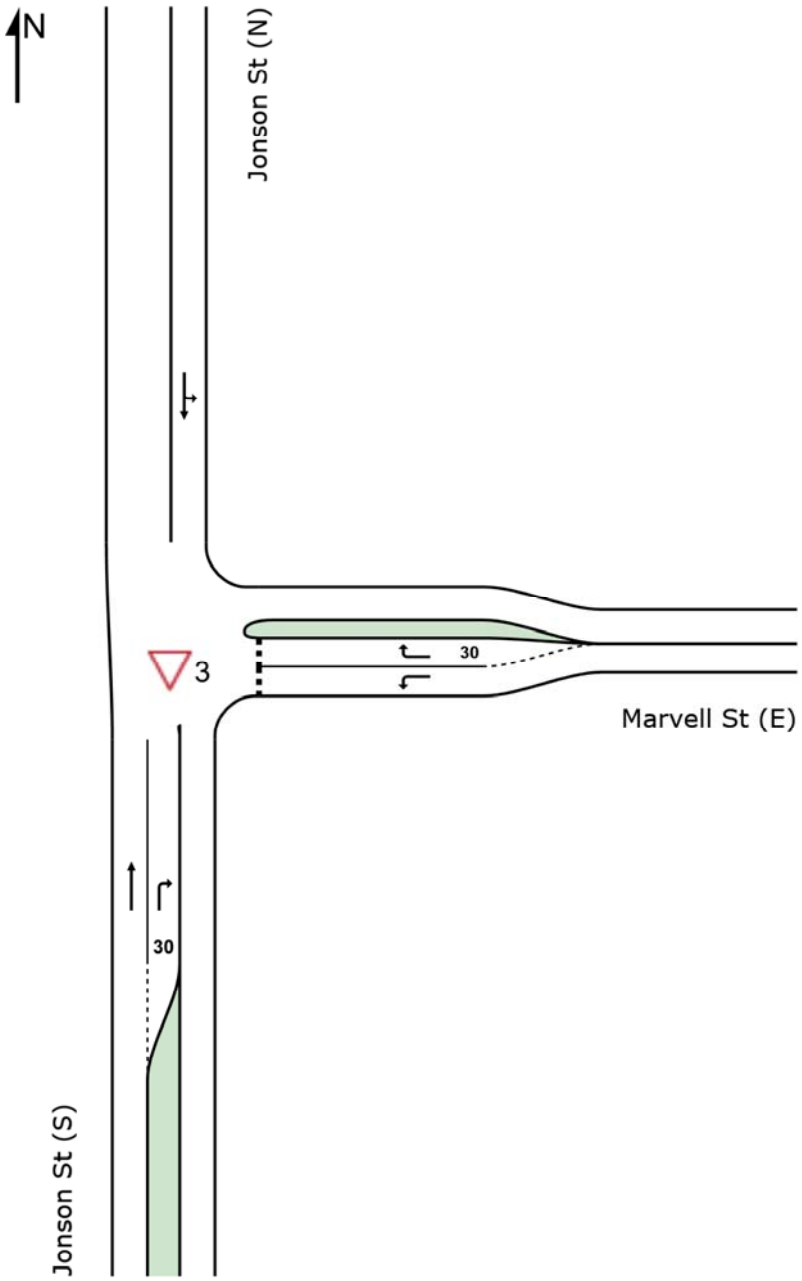
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	749	0.8	0.380	0.1	LOS A	0.2	1.5	0.03	0.01	0.04	49.4
3	R2	11	0.0	0.380	8.6	LOS A	0.2	1.5	0.03	0.01	0.04	44.4
Approach		760	0.8	0.380	0.2	NA	0.2	1.5	0.03	0.01	0.04	49.4
East: Kingsley St (E)												
4	L2	32	0.0	0.033	6.6	LOS A	0.1	0.8	0.48	0.64	0.48	34.4
6	R2	41	0.0	0.162	17.4	LOS C	0.5	3.3	0.83	0.92	0.84	22.7
Approach		73	0.0	0.162	12.7	LOS B	0.5	3.3	0.68	0.80	0.68	26.8
North: Jonson St (N)												
7	L2	44	0.0	0.275	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	27.8
8	T1	529	0.7	0.275	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.1
Approach		574	0.6	0.275	0.4	NA	0.0	0.0	0.00	0.04	0.00	47.0
All Vehicles		1406	0.7	0.380	0.9	NA	0.5	3.3	0.05	0.06	0.06	46.8

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

SITE LAYOUT

Site: 3 [2021 BG AM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 3 [2021 BG AM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	556	4.8	0.291	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	46	0.0	0.044	6.6	LOS A	0.2	1.3	0.51	0.65	0.51	30.5
Approach		602	4.4	0.291	0.5	NA	0.2	1.3	0.04	0.05	0.04	48.5
East: Marvell St (E)												
4	L2	60	7.1	0.059	5.2	LOS A	0.2	1.7	0.45	0.62	0.45	33.8
6	R2	64	3.3	0.257	19.1	LOS C	0.9	6.7	0.83	0.95	0.93	21.6
Approach		124	5.1	0.257	12.4	LOS B	0.9	6.7	0.65	0.79	0.70	25.8
North: Jonson St (N)												
7	L2	79	0.0	0.265	4.6	LOS A	0.0	0.0	0.00	0.09	0.00	28.2
8	T1	425	6.3	0.265	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	48.3
Approach		504	5.3	0.265	0.7	NA	0.0	0.0	0.00	0.09	0.00	44.6
All Vehicles		1231	4.9	0.291	1.8	NA	0.9	6.7	0.08	0.14	0.09	44.1

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

MOVEMENT SUMMARY

Site: 3 [2021 BG PM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	484	2.6	0.251	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	108	1.0	0.108	7.0	LOS A	0.5	3.2	0.54	0.71	0.54	29.9
Approach		593	2.3	0.251	1.3	NA	0.5	3.2	0.10	0.13	0.10	46.3
East: Marvell St (E)												
4	L2	122	1.8	0.120	5.4	LOS A	0.5	3.3	0.48	0.66	0.48	34.1
6	R2	79	1.4	0.307	19.6	LOS C	1.2	8.3	0.84	0.97	0.99	21.4
Approach		201	1.6	0.307	10.9	LOS B	1.2	8.3	0.62	0.78	0.68	27.2
North: Jonson St (N)												
7	L2	83	1.3	0.283	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	463	3.0	0.283	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		546	2.7	0.283	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.8
All Vehicles		1340	2.4	0.307	2.5	NA	1.2	8.3	0.14	0.21	0.15	42.4

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

MOVEMENT SUMMARY

Site: 3 [2021 BG SAT]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	502	1.5	0.258	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	101	1.1	0.094	6.6	LOS A	0.4	2.8	0.51	0.67	0.51	30.5
Approach		603	1.4	0.258	1.1	NA	0.4	2.8	0.09	0.11	0.09	46.7
East: Marvell St (E)												
4	L2	149	0.7	0.134	5.0	LOS A	0.5	3.8	0.44	0.63	0.44	34.9
6	R2	86	3.7	0.317	18.7	LOS C	1.2	8.9	0.83	0.97	1.00	21.9
Approach		236	1.8	0.317	10.0	LOS B	1.2	8.9	0.59	0.75	0.65	28.2
North: Jonson St (N)												
7	L2	95	3.4	0.255	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	28.1
8	T1	399	1.3	0.255	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.1
Approach		494	1.7	0.255	0.9	NA	0.0	0.0	0.00	0.10	0.00	43.6
All Vehicles		1333	1.6	0.317	2.6	NA	1.2	8.9	0.14	0.22	0.15	42.0

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

MOVEMENT SUMMARY

Site: 3 [2021 DES AM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	577	4.8	0.302	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	48	0.0	0.046	6.6	LOS A	0.2	1.3	0.51	0.65	0.51	30.4
Approach		625	4.4	0.302	0.5	NA	0.2	1.3	0.04	0.05	0.04	48.4
East: Marvell St (E)												
4	L2	61	7.1	0.060	5.2	LOS A	0.2	1.7	0.46	0.62	0.46	33.7
6	R2	64	3.3	0.272	20.4	LOS C	1.0	7.1	0.85	0.96	0.96	20.9
Approach		125	5.2	0.272	13.0	LOS B	1.0	7.1	0.66	0.80	0.72	25.2
North: Jonson St (N)												
7	L2	79	0.0	0.268	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	431	6.3	0.268	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.3
Approach		509	5.3	0.268	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.7
All Vehicles		1260	4.9	0.302	1.8	NA	1.0	7.1	0.08	0.14	0.09	44.1

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

MOVEMENT SUMMARY

Site: 3 [2021 DES PM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	502	2.6	0.260	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	113	1.0	0.115	7.1	LOS A	0.5	3.4	0.55	0.72	0.55	29.8
Approach		615	2.3	0.260	1.3	NA	0.5	3.4	0.10	0.13	0.10	46.2
East: Marvell St (E)												
4	L2	127	1.8	0.127	5.4	LOS A	0.5	3.5	0.49	0.67	0.49	34.0
6	R2	79	1.4	0.327	21.1	LOS C	1.2	8.8	0.85	0.98	1.03	20.5
Approach		206	1.6	0.327	11.4	LOS B	1.2	8.8	0.63	0.79	0.69	26.7
North: Jonson St (N)												
7	L2	83	1.3	0.290	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.3
8	T1	477	3.0	0.290	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		560	2.7	0.290	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.9
All Vehicles		1381	2.4	0.327	2.6	NA	1.2	8.8	0.14	0.21	0.15	42.4

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

MOVEMENT SUMMARY

Site: 3 [2021 DES SAT]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	527	1.5	0.271	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	106	1.1	0.101	6.7	LOS A	0.4	3.0	0.52	0.68	0.52	30.3
Approach		634	1.4	0.271	1.1	NA	0.4	3.0	0.09	0.11	0.09	46.7
East: Marvell St (E)												
4	L2	155	0.7	0.141	5.1	LOS A	0.6	4.0	0.45	0.64	0.45	34.8
6	R2	86	3.7	0.344	20.7	LOS C	1.3	9.7	0.85	0.99	1.04	20.7
Approach		241	1.8	0.344	10.7	LOS B	1.3	9.7	0.60	0.76	0.67	27.5
North: Jonson St (N)												
7	L2	95	3.4	0.262	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	28.1
8	T1	414	1.3	0.262	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.1
Approach		508	1.7	0.262	0.9	NA	0.0	0.0	0.00	0.10	0.00	43.8
All Vehicles		1383	1.6	0.344	2.7	NA	1.3	9.7	0.14	0.22	0.16	41.9

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

MOVEMENT SUMMARY

Site: 3 [2031 BG AM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	584	4.8	0.306	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	49	0.0	0.048	6.7	LOS A	0.2	1.4	0.52	0.66	0.52	30.3
Approach		634	4.4	0.306	0.5	NA	0.2	1.4	0.04	0.05	0.04	48.4
East: Marvell St (E)												
4	L2	62	7.1	0.063	5.3	LOS A	0.2	1.8	0.47	0.63	0.47	33.5
6	R2	67	3.3	0.299	21.9	LOS C	1.1	7.9	0.86	0.98	1.00	20.1
Approach		129	5.1	0.299	13.9	LOS B	1.1	7.9	0.67	0.81	0.75	24.4
North: Jonson St (N)												
7	L2	83	0.0	0.279	4.6	LOS A	0.0	0.0	0.00	0.09	0.00	28.2
8	T1	447	6.3	0.279	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	48.3
Approach		531	5.3	0.279	0.7	NA	0.0	0.0	0.00	0.09	0.00	44.6
All Vehicles		1294	4.9	0.306	2.0	NA	1.1	7.9	0.09	0.14	0.09	43.8

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

MOVEMENT SUMMARY

Site: 3 [2031 BG PM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	508	2.6	0.263	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	114	1.0	0.118	7.2	LOS A	0.5	3.5	0.56	0.73	0.56	29.7
Approach		622	2.3	0.263	1.3	NA	0.5	3.5	0.10	0.13	0.10	46.2
East: Marvell St (E)												
4	L2	128	1.8	0.130	5.5	LOS A	0.5	3.6	0.49	0.68	0.49	33.9
6	R2	83	1.4	0.358	22.4	LOS C	1.4	9.8	0.87	1.00	1.07	19.8
Approach		212	1.6	0.358	12.2	LOS B	1.4	9.8	0.64	0.80	0.72	26.0
North: Jonson St (N)												
7	L2	87	1.3	0.298	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	487	3.0	0.298	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		575	2.7	0.298	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.8
All Vehicles		1408	2.4	0.358	2.7	NA	1.4	9.8	0.14	0.21	0.15	42.1

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

MOVEMENT SUMMARY

Site: 3 [2031 BG SAT]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	527	1.5	0.271	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	106	1.1	0.102	6.8	LOS A	0.4	3.0	0.53	0.69	0.53	30.2
Approach		634	1.4	0.271	1.1	NA	0.4	3.0	0.09	0.12	0.09	46.6
East: Marvell St (E)												
4	L2	158	0.7	0.145	5.1	LOS A	0.6	4.1	0.46	0.64	0.46	34.7
6	R2	91	3.7	0.365	21.3	LOS C	1.4	10.4	0.86	1.00	1.07	20.4
Approach		248	1.8	0.365	11.0	LOS B	1.4	10.4	0.60	0.77	0.68	27.1
North: Jonson St (N)												
7	L2	99	3.4	0.267	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	28.1
8	T1	419	1.3	0.267	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.1
Approach		518	1.7	0.267	0.9	NA	0.0	0.0	0.00	0.10	0.00	43.6
All Vehicles		1400	1.6	0.365	2.8	NA	1.4	10.4	0.15	0.23	0.16	41.6

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

MOVEMENT SUMMARY

Site: 3 [2031 DES AM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	605	4.8	0.317	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	52	0.0	0.051	6.8	LOS A	0.2	1.5	0.52	0.67	0.52	30.2
Approach		657	4.4	0.317	0.5	NA	0.2	1.5	0.04	0.05	0.04	48.4
East: Marvell St (E)												
4	L2	63	7.1	0.064	5.3	LOS A	0.2	1.8	0.47	0.64	0.47	33.5
6	R2	67	3.3	0.318	23.5	LOS C	1.2	8.4	0.87	0.99	1.03	19.3
Approach		131	5.1	0.318	14.7	LOS B	1.2	8.4	0.68	0.82	0.76	23.8
North: Jonson St (N)												
7	L2	83	0.0	0.282	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	453	6.3	0.282	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.3
Approach		536	5.3	0.282	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.7
All Vehicles		1323	4.9	0.318	2.0	NA	1.2	8.4	0.09	0.14	0.10	43.7

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

MOVEMENT SUMMARY

Site: 3 [2031 DES PM]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	526	2.6	0.273	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	118	1.0	0.125	7.3	LOS A	0.5	3.7	0.56	0.74	0.56	29.5
Approach		644	2.3	0.273	1.3	NA	0.5	3.7	0.10	0.13	0.10	46.1
East: Marvell St (E)												
4	L2	134	1.8	0.137	5.6	LOS A	0.5	3.8	0.50	0.69	0.50	33.7
6	R2	83	1.4	0.381	24.3	LOS C	1.5	10.4	0.88	1.01	1.11	18.9
Approach		217	1.6	0.381	12.8	LOS B	1.5	10.4	0.65	0.81	0.73	25.4
North: Jonson St (N)												
7	L2	87	1.3	0.305	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.3
8	T1	501	3.0	0.305	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		588	2.7	0.305	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.9
All Vehicles		1449	2.4	0.381	2.8	NA	1.5	10.4	0.14	0.21	0.16	42.0

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

MOVEMENT SUMMARY

Site: 3 [2031 DES SAT]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

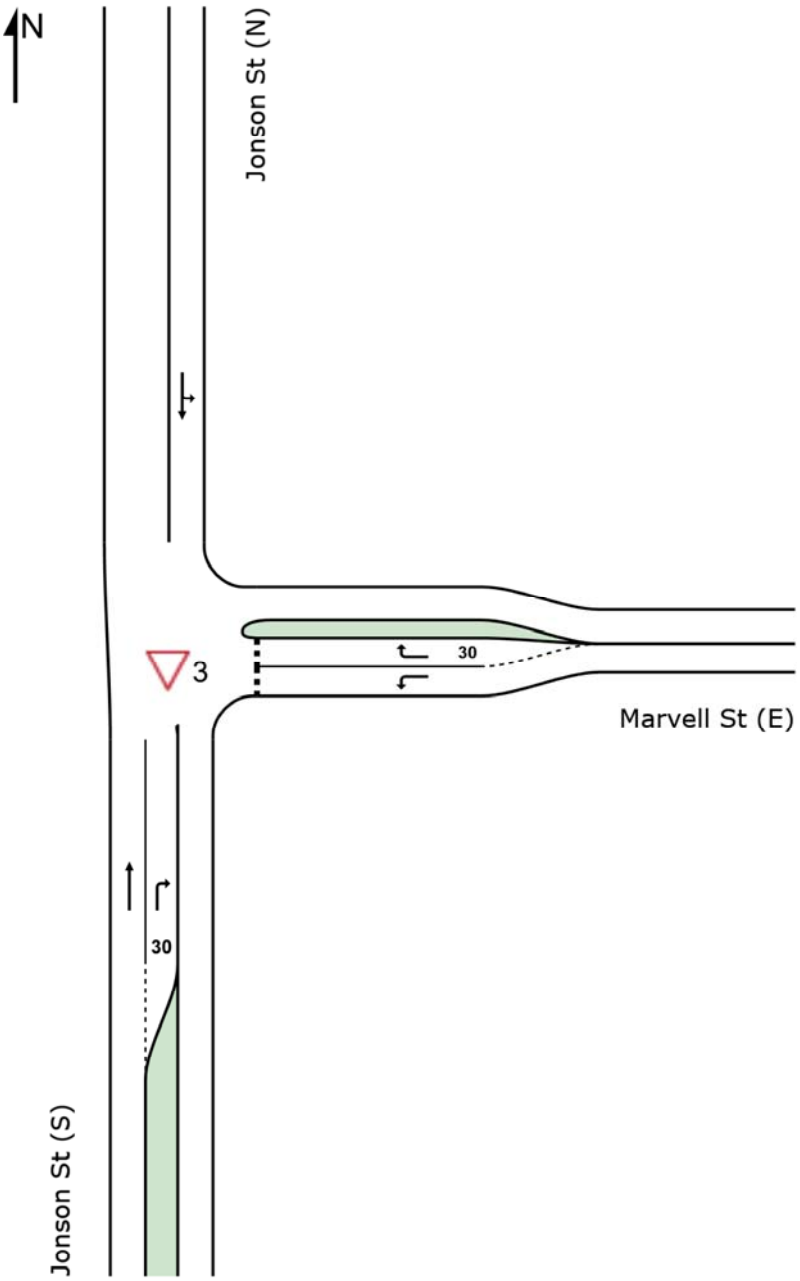
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	553	1.5	0.284	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	112	1.1	0.109	6.9	LOS A	0.5	3.2	0.53	0.70	0.53	30.1
Approach		664	1.4	0.284	1.2	NA	0.5	3.2	0.09	0.12	0.09	46.6
East: Marvell St (E)												
4	L2	163	0.7	0.152	5.2	LOS A	0.6	4.3	0.47	0.66	0.47	34.6
6	R2	91	3.7	0.397	23.7	LOS C	1.6	11.3	0.87	1.01	1.12	19.2
Approach		254	1.8	0.397	11.8	LOS B	1.6	11.3	0.61	0.78	0.70	26.3
North: Jonson St (N)												
7	L2	99	3.4	0.275	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	28.1
8	T1	434	1.3	0.275	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.1
Approach		533	1.7	0.275	0.9	NA	0.0	0.0	0.00	0.10	0.00	43.8
All Vehicles		1451	1.6	0.397	2.9	NA	1.6	11.3	0.15	0.23	0.16	41.5

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

SITE LAYOUT

Site: 3 [2021 BG AM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 3 [2021 BG AM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	577	4.8	0.302	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	48	0.0	0.047	6.7	LOS A	0.2	1.3	0.52	0.66	0.52	30.3
Approach		625	4.4	0.302	0.5	NA	0.2	1.3	0.04	0.05	0.04	48.4
East: Marvell St (E)												
4	L2	62	7.1	0.062	5.3	LOS A	0.2	1.7	0.46	0.63	0.46	33.6
6	R2	66	3.3	0.286	21.1	LOS C	1.0	7.5	0.85	0.97	0.98	20.5
Approach		128	5.1	0.286	13.4	LOS B	1.0	7.5	0.66	0.80	0.73	24.9
North: Jonson St (N)												
7	L2	82	0.0	0.275	4.6	LOS A	0.0	0.0	0.00	0.09	0.00	28.2
8	T1	441	6.3	0.275	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	48.3
Approach		523	5.3	0.275	0.7	NA	0.0	0.0	0.00	0.09	0.00	44.6
All Vehicles		1277	4.9	0.302	1.9	NA	1.0	7.5	0.09	0.14	0.09	43.9

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

MOVEMENT SUMMARY

Site: 3 [2021 BG PM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	502	2.6	0.260	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	113	1.0	0.116	7.1	LOS A	0.5	3.4	0.55	0.72	0.55	29.7
Approach		615	2.3	0.260	1.3	NA	0.5	3.4	0.10	0.13	0.10	46.2
East: Marvell St (E)												
4	L2	127	1.8	0.128	5.5	LOS A	0.5	3.5	0.49	0.67	0.49	33.9
6	R2	82	1.4	0.344	21.6	LOS C	1.3	9.3	0.86	0.99	1.05	20.2
Approach		209	1.6	0.344	11.8	LOS B	1.3	9.3	0.63	0.80	0.71	26.3
North: Jonson St (N)												
7	L2	86	1.3	0.294	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	481	3.0	0.294	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		567	2.7	0.294	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.8
All Vehicles		1392	2.4	0.344	2.6	NA	1.3	9.3	0.14	0.21	0.15	42.2

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

MOVEMENT SUMMARY

Site: 3 [2021 BG SAT - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	521	1.5	0.268	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	105	1.1	0.100	6.7	LOS A	0.4	3.0	0.52	0.69	0.52	30.3
Approach		626	1.4	0.268	1.1	NA	0.4	3.0	0.09	0.12	0.09	46.7
East: Marvell St (E)												
4	L2	156	0.7	0.142	5.1	LOS A	0.6	4.0	0.46	0.64	0.46	34.8
6	R2	89	3.7	0.352	20.6	LOS C	1.4	10.0	0.85	0.99	1.05	20.8
Approach		245	1.8	0.352	10.7	LOS B	1.4	10.0	0.60	0.77	0.67	27.4
North: Jonson St (N)												
7	L2	98	3.4	0.264	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	28.1
8	T1	414	1.3	0.264	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.1
Approach		512	1.7	0.264	0.9	NA	0.0	0.0	0.00	0.10	0.00	43.6
All Vehicles		1383	1.6	0.352	2.7	NA	1.4	10.0	0.15	0.23	0.16	41.7

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

MOVEMENT SUMMARY

Site: 3 [2021 DES AM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	598	4.8	0.314	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	51	0.0	0.049	6.7	LOS A	0.2	1.4	0.52	0.66	0.52	30.3
Approach		648	4.4	0.314	0.5	NA	0.2	1.4	0.04	0.05	0.04	48.4
East: Marvell St (E)												
4	L2	63	7.1	0.064	5.3	LOS A	0.2	1.8	0.46	0.63	0.46	33.5
6	R2	66	3.3	0.303	22.6	LOS C	1.1	8.0	0.86	0.98	1.01	19.7
Approach		129	5.2	0.303	14.1	LOS B	1.1	8.0	0.67	0.81	0.74	24.3
North: Jonson St (N)												
7	L2	82	0.0	0.278	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	446	6.3	0.278	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.3
Approach		528	5.3	0.278	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.7
All Vehicles		1306	4.9	0.314	2.0	NA	1.1	8.0	0.09	0.14	0.09	43.8

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

MOVEMENT SUMMARY

Site: 3 [2021 DES PM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	520	2.6	0.269	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	117	1.0	0.122	7.2	LOS A	0.5	3.6	0.56	0.73	0.56	29.6
Approach		637	2.3	0.269	1.3	NA	0.5	3.6	0.10	0.13	0.10	46.2
East: Marvell St (E)												
4	L2	133	1.8	0.135	5.6	LOS A	0.5	3.8	0.50	0.68	0.50	33.8
6	R2	82	1.4	0.367	23.4	LOS C	1.4	10.0	0.87	1.00	1.09	19.3
Approach		215	1.6	0.367	12.4	LOS B	1.4	10.0	0.64	0.81	0.72	25.8
North: Jonson St (N)												
7	L2	86	1.3	0.301	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.3
8	T1	495	3.0	0.301	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		581	2.7	0.301	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.9
All Vehicles		1433	2.4	0.367	2.7	NA	1.4	10.0	0.14	0.21	0.15	42.1

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

MOVEMENT SUMMARY

Site: 3 [2021 DES SAT - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	546	1.5	0.281	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
3	R2	111	1.1	0.107	6.8	LOS A	0.5	3.2	0.53	0.70	0.53	30.1
Approach		657	1.4	0.281	1.2	NA	0.5	3.2	0.09	0.12	0.09	46.6
East: Marvell St (E)												
4	L2	161	0.7	0.150	5.2	LOS A	0.6	4.2	0.47	0.65	0.47	34.6
6	R2	89	3.7	0.383	22.9	LOS C	1.5	10.9	0.87	1.01	1.10	19.6
Approach		251	1.8	0.383	11.5	LOS B	1.5	10.9	0.61	0.78	0.69	26.6
North: Jonson St (N)												
7	L2	98	3.4	0.271	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	28.1
8	T1	428	1.3	0.271	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.1
Approach		526	1.7	0.271	0.9	NA	0.0	0.0	0.00	0.10	0.00	43.8
All Vehicles		1434	1.6	0.383	2.9	NA	1.5	10.9	0.15	0.23	0.16	41.6

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

MOVEMENT SUMMARY

Site: 3 [2031 BG AM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	732	4.8	0.385	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	61	0.0	0.072	7.7	LOS A	0.3	2.0	0.58	0.74	0.58	28.9
Approach		793	4.4	0.385	0.6	NA	0.3	2.0	0.04	0.06	0.04	48.2
East: Marvell St (E)												
4	L2	78	7.1	0.091	6.1	LOS A	0.3	2.5	0.53	0.71	0.53	32.2
6	R2	84	3.3	0.673	56.0	LOS F	2.8	19.9	0.96	1.14	1.55	10.6
Approach		162	5.1	0.673	32.0	LOS D	2.8	19.9	0.75	0.93	1.06	15.1
North: Jonson St (N)												
7	L2	103	0.0	0.348	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	559	6.3	0.348	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.3
Approach		662	5.3	0.348	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.6
All Vehicles		1617	4.9	0.673	3.8	NA	2.8	19.9	0.10	0.16	0.13	40.6

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

MOVEMENT SUMMARY

Site: 3 [2031 BG PM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	636	2.6	0.328	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	142	1.0	0.183	8.5	LOS A	0.7	5.2	0.63	0.83	0.63	28.0
Approach		778	2.3	0.328	1.6	NA	0.7	5.2	0.11	0.15	0.11	45.7
East: Marvell St (E)												
4	L2	161	1.8	0.191	6.5	LOS A	0.7	5.3	0.56	0.77	0.56	32.3
6	R2	103	1.4	0.780	64.7	LOS F	3.7	26.3	0.97	1.24	1.90	9.5
Approach		264	1.6	0.780	29.2	LOS D	3.7	26.3	0.72	0.96	1.08	16.0
North: Jonson St (N)												
7	L2	109	1.3	0.372	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	609	3.0	0.372	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		719	2.7	0.372	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.8
All Vehicles		1761	2.4	0.780	5.4	NA	3.7	26.3	0.16	0.24	0.21	37.7

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

MOVEMENT SUMMARY

Site: 3 [2031 BG SAT - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	659	1.5	0.339	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	133	1.1	0.152	7.8	LOS A	0.6	4.4	0.59	0.78	0.59	28.9
Approach		792	1.4	0.339	1.3	NA	0.6	4.4	0.10	0.13	0.10	46.3
East: Marvell St (E)												
4	L2	197	0.7	0.205	5.8	LOS A	0.8	5.8	0.53	0.72	0.53	33.5
6	R2	114	3.7	0.780	59.3	LOS F	3.9	28.0	0.97	1.26	1.94	10.2
Approach		311	1.8	0.780	25.4	LOS D	3.9	28.0	0.69	0.92	1.05	17.5
North: Jonson St (N)												
7	L2	124	3.4	0.334	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	28.1
8	T1	524	1.1	0.334	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.1
Approach		648	1.5	0.334	0.9	NA	0.0	0.0	0.00	0.10	0.00	43.6
All Vehicles		1751	1.5	0.780	5.4	NA	3.9	28.0	0.17	0.26	0.23	37.4

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

MOVEMENT SUMMARY

Site: 3 [2031 DES AM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	753	4.8	0.396	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	63	0.0	0.075	7.8	LOS A	0.3	2.1	0.59	0.75	0.59	28.9
Approach		816	4.4	0.396	0.6	NA	0.3	2.1	0.05	0.06	0.05	48.2
East: Marvell St (E)												
4	L2	79	7.1	0.093	6.2	LOS A	0.3	2.6	0.53	0.71	0.53	32.2
6	R2	84	3.3	0.721	64.6	LOS F	3.0	22.0	0.97	1.17	1.65	9.5
Approach		163	5.1	0.721	36.3	LOS E	3.0	22.0	0.76	0.95	1.11	13.9
North: Jonson St (N)												
7	L2	103	0.0	0.351	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	564	6.3	0.351	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.3
Approach		667	5.3	0.351	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.7
All Vehicles		1646	4.9	0.721	4.2	NA	3.0	22.0	0.10	0.16	0.13	40.0

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

MOVEMENT SUMMARY

Site: 3 [2031 DES PM - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	654	2.6	0.338	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	146	1.0	0.193	8.7	LOS A	0.8	5.5	0.63	0.83	0.63	27.8
Approach		800	2.3	0.338	1.6	NA	0.8	5.5	0.12	0.15	0.12	45.6
East: Marvell St (E)												
4	L2	166	1.8	0.201	6.6	LOS A	0.8	5.6	0.57	0.78	0.57	32.1
6	R2	103	1.4	0.839	79.6	LOS F	4.3	30.7	0.98	1.32	2.15	8.0
Approach		269	1.6	0.839	34.5	LOS D	4.3	30.7	0.73	0.99	1.18	14.3
North: Jonson St (N)												
7	L2	109	1.3	0.379	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	28.2
8	T1	623	3.0	0.379	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	48.4
Approach		733	2.7	0.379	0.7	NA	0.0	0.0	0.00	0.08	0.00	44.9
All Vehicles		1802	2.4	0.839	6.2	NA	4.3	30.7	0.16	0.25	0.23	36.6

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

MOVEMENT SUMMARY

Site: 3 [2031 DES SAT - Sensitivity Test]

Jonson Street / Marvell Street
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jonson St (S)												
2	T1	684	1.5	0.352	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	138	1.1	0.162	7.9	LOS A	0.7	4.7	0.60	0.79	0.60	28.7
Approach		822	1.4	0.352	1.3	NA	0.7	4.7	0.10	0.13	0.10	46.2
East: Marvell St (E)												
4	L2	202	0.7	0.215	6.0	LOS A	0.9	6.1	0.54	0.74	0.54	33.3
6	R2	114	3.7	0.860	79.0	LOS F	4.8	34.8	0.98	1.37	2.34	8.1
Approach		316	1.8	0.860	32.3	LOS D	4.8	34.8	0.70	0.97	1.19	14.9
North: Jonson St (N)												
7	L2	124	3.4	0.342	4.6	LOS A	0.0	0.0	0.00	0.10	0.00	28.1
8	T1	539	1.3	0.342	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	48.1
Approach		663	1.7	0.342	0.9	NA	0.0	0.0	0.00	0.10	0.00	43.7
All Vehicles		1801	1.6	0.860	6.6	NA	4.8	34.8	0.17	0.27	0.25	35.8

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

APPENDIX E

HOTEL PARKING LETTER

Mr James Vallis
Managing Director
Azzura Corporation International P/L
Mercato on Ferry
SOUTHPORT QLD 4215

13 February 2019

Dear James

Re: Car Park Utilisation in Accommodation Hotels

Accommodation hotels typically have two ownership structures, either Strata Title (mostly serviced apartments) or One Title (ie one ownership entity, generally a typical hotel). Depending on the ownership structure, the carpark utilization by guests/ owners will differ.

UHL has decades of experience in the modelling of operational structure for One Entity hotels.

Many additional factors will intervene in the utilization factoring for hotel (one entity ownership) parking, for example- Airport Hotels, CBD Hotels and Resort Hotels.

In our experience the utilisation factor is seldom higher than 30% and more within a range of 20-30%
.

There is no single source of data on this subject and even if there were the individual features of each Hotel asset would require a subjective extrapolation of that data.

I trust this is of assistance

Regards

Andreas Pilz

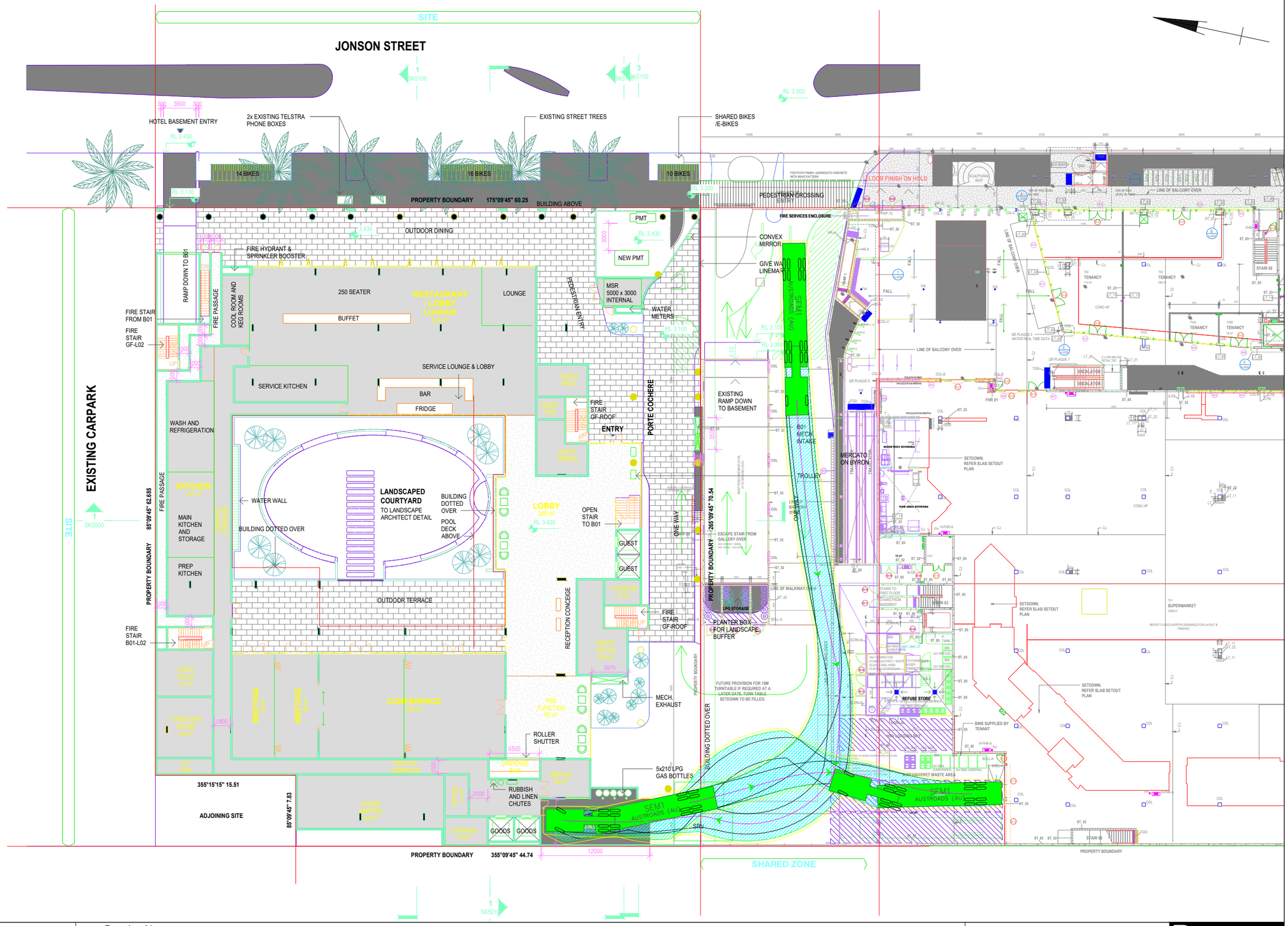
Managing Director

UHL Hospitality Pty Ltd – ABN 94 009397 424 – www.uhlhospitality.com

Australia Gold Coast: 10 Adios Crt Mudgeeraba QLD 4213 M: +61403188155 T: +61755306362 E: Andreas.pilz@uhlhospitality.com
Australia Sydney: 29 Pengilly St, River View, Sydney NSW 2066 M: +61418256650 E: bill.edwards@strategy4hotels.com
New Zealand: 10 Clissold Street, Merivale Christchurch M: +64211859115 E: jrpaynter@gmail.com
Europe: Thannrain 59, 6422 Stams, Austria T: +4369917281481 E: ulliwolffram@yahoo.co.uk

APPENDIX F

SWEPT PATH ASSESSMENT



Date: 18/06/2020	Drawing Name: Ground Floor Swept Path Assessment - 19m AV Manoeuvring - Eastern Shopping Centre Loading Bay	NOT FOR CONSTRUCTION	BITZIOS consulting
Project No: P3829	Project Name: 106 Jonson Street	0 4 8 12 16m Scale 1:400 (A3)	Sheet 1 / Version 001

SITE

JONSON STREET

HOTEL BASEMENT ENTRY

2x EXISTING TELSTRA PHONE BOXES

EXISTING STREET TREES

SHARED BIKES /E-BIKES

14 BIKES

16 BIKES

10 BIKES

PROPERTY BOUNDARY 175°09'45" 60.25

BUILDING ABOVE

OUTDOOR DINING

FIRE HYDRANT & SPRINKLER BOOSTER

PMT

NEW PMT

MSR 5000 x 3000 INTERNAL

WATER METERS

CONVEX MIRROR

GIVE WAY LINEMARK

PEDESTRIAN CROSSING

FIRE SERVICES ENCLOSURE

FLOOR FINISH ON HOLD

RAMP DOWN TO B01

FIRE PASSAGE

COOL ROOM AND KEG ROOMS

250 SEATER

RESTAURANT / LOBBY LOUNGE 228 m²

LOUNGE

BUFFET

PEDESTRIAN ENTRY

FIRE STAIR FROM B01

FIRE STAIR GF-L02

SERVICE LOUNGE & LOBBY

SERVICE KITCHEN

BAR

FRIDGE

GUEST WALE

GUEST PWD

GUEST FEMALE

FIRE STAIR GF-ROOF

ENTRY

PORTE COCHERE

EXISTING RAMP DOWN TO BASEMENT

WASH AND REFRIGERATION

KITCHEN 131 m²

MAIN KITCHEN AND STORAGE

PREP KITCHEN

SERVICE CORRIDOR

WATER WALL

BUILDING DOTTED OVER

LANDSCAPED COURTYARD

TO LANDSCAPE ARCHITECT DETAIL

BUILDING DOTTED OVER

POOL DECK ABOVE

LOBBY 280 m²

OPEN STAIR TO B01

ONE WAY

GUEST

GUEST

LUGGAGE 10 m²

RECEPTION CONCIEGE

FIRE STAIR GF-ROOF

FIRE STAIR B01-L02

OUTDOOR TERRACE

PLANTER BOX FOR LANDSCAPE BUFFER

LPG STORAGE

ESCAPE STAIR FROM GALLERY OVER

LINE OF WALKWAY OVER

MERCATO ON BYRON

TROLLEY

SETDOWN. REFER SLAB SETOUT PLAN

STAFF TOILET 34 m²

FURNITURE STORE 46 m²

MEETING 34 m²

MEETING 32 m²

CONFERENCE 220 m²

PRE FUNCTION 95 m²

FRONT OF HOUSE 42 m²

MECH. EXHAUST

FUTURE PROVISION FOR 19M TURNTABLE IF REQUIRED AT A LATER DATE. TURN TABLE SETDOWN TO BE FILLED.

REFUSE STORE

BINS SUPPLIED BY TENANT

SUPERMARKET WASTE AREA

SUPERMARKET 3428 m²

AV 10 m²

ROLLER SHUTTER

DISPENSE BAR

REFUSE 42 m²

5x210 LPG GAS BOTTLES

OFFICE 14 m²

HOUSE KEEPING 16 m²

STORAGE 14 m²

GOODS

GOODS

RUBBISH AND LINEN CHUTES

355°15'15" 15.51

ADJOINING SITE

85°09'45" 7.83

PROPERTY BOUNDARY 355°09'45" 44.74

PROPERTY BOUNDARY 265°09'45" 70.54

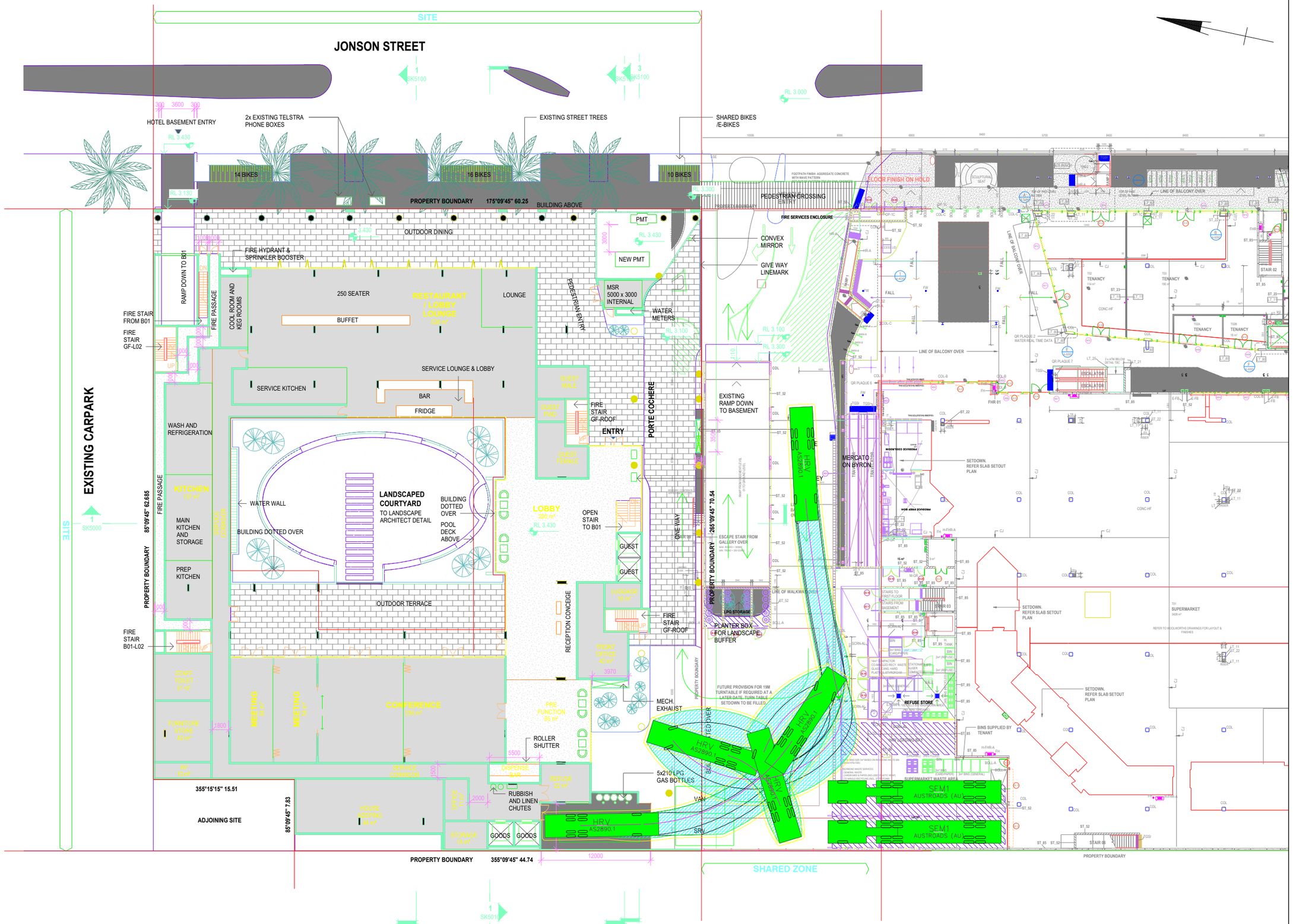
PROPERTY BOUNDARY 85°09'45" 62.685

SHARED ZONE

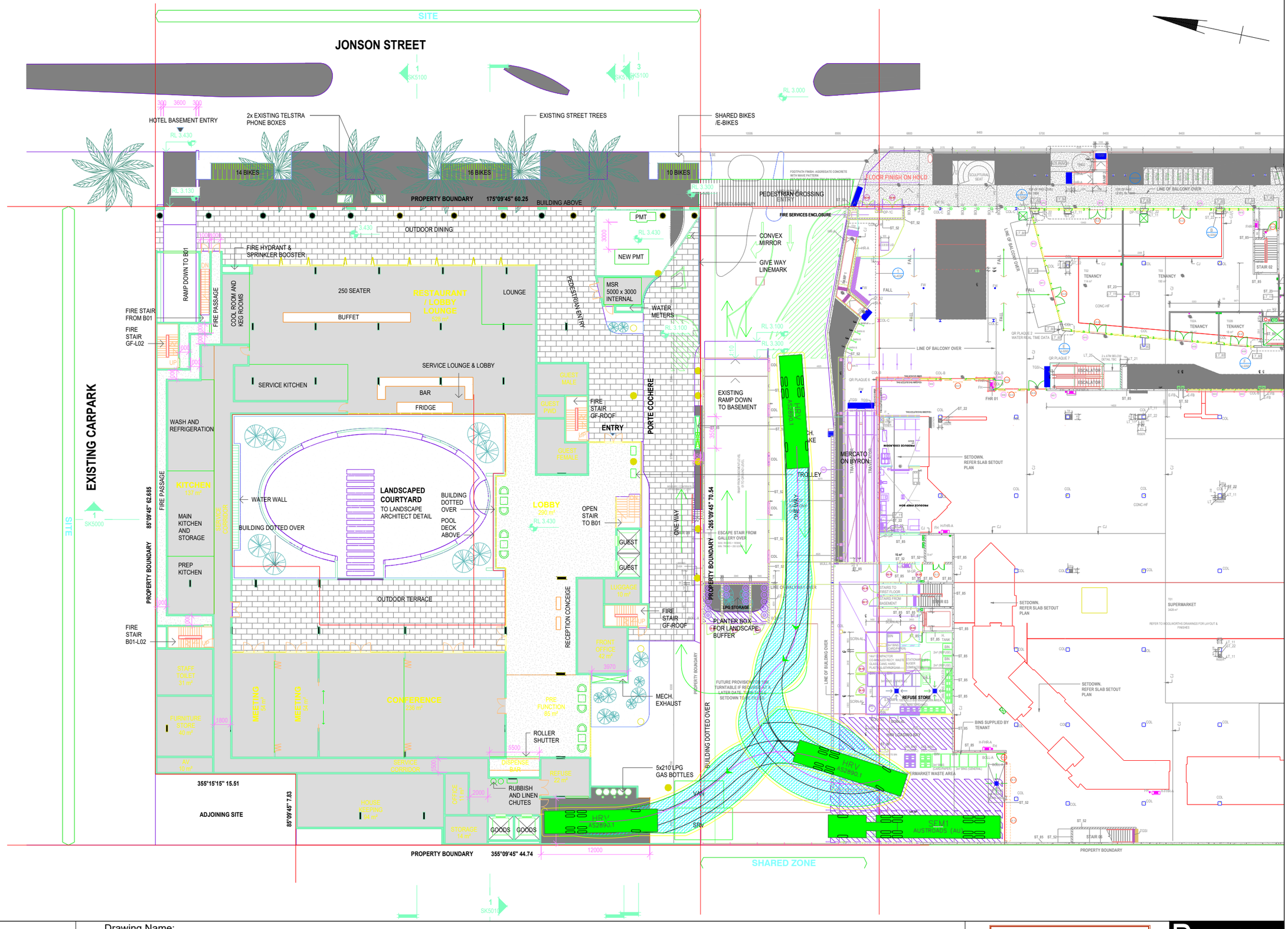
EXISTING CARPARK

SITE

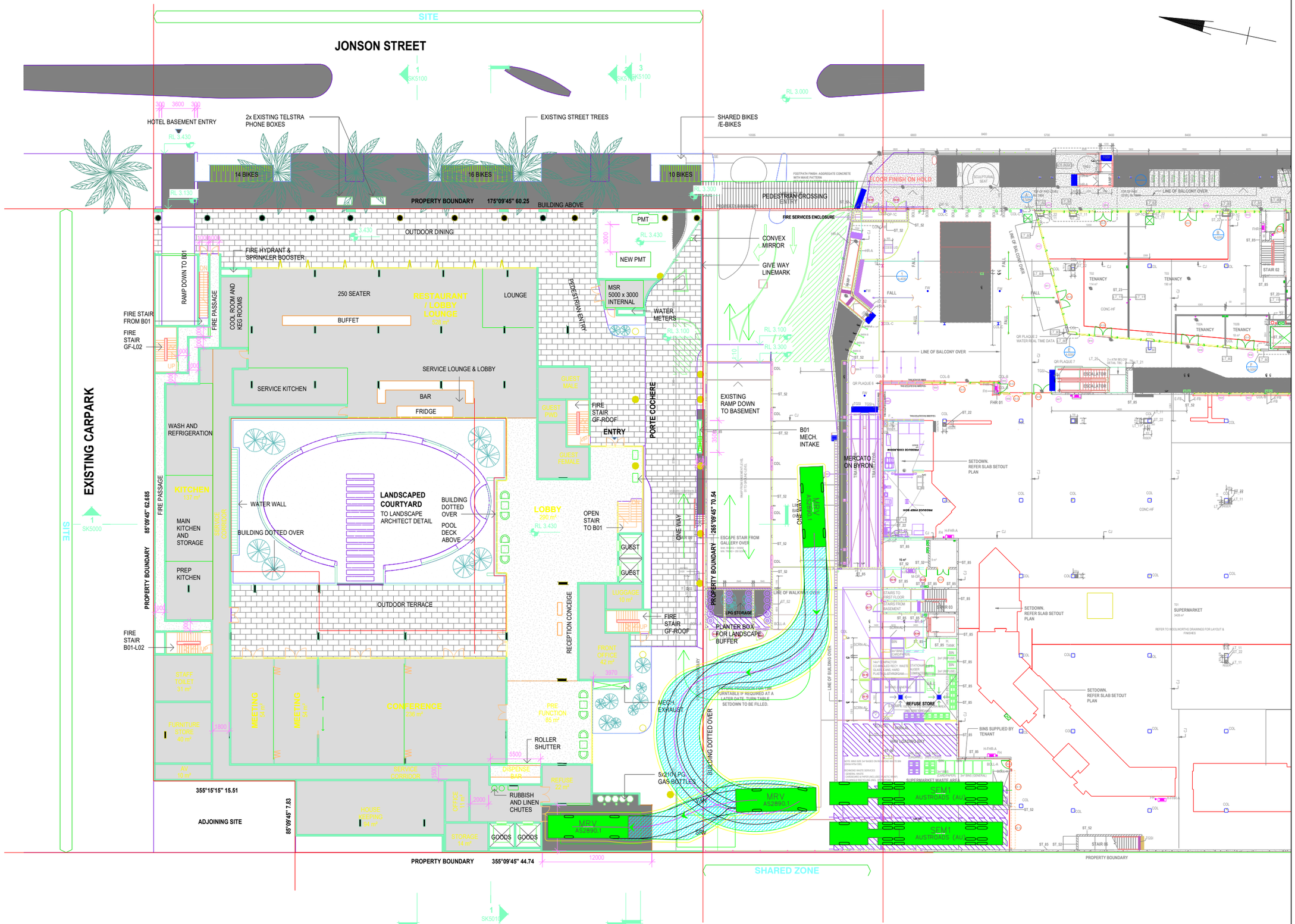
Date: 18/06/2020	Drawing Name: Ground Floor Swept Path Assessment - 19m AV Manoeuvring - Western Shopping Centre Loading Bay	NOT FOR CONSTRUCTION	BITZIOS consulting
Project No: P3829	Project Name: 106 Jonson Street	0 4 8 12 16m Scale 1:400 (A3)	Sheet 2 / Version 001



Date: 18/06/2020	Drawing Name: Ground Floor Swept Path Assessment - HRV Manoeuvring - Hotel Loading Bay with Shopping Centre Loading Bays Occupied	NOT FOR CONSTRUCTION	BITZIOS consulting
Project No: P3829	Project Name: 106 Jonson Street	0 4 8 12 16m Scale 1:400 (A3)	Sheet 3 / Version 001



Date: 18/06/2020	Drawing Name: Ground Floor Swept Path Assessment - HRV Manoeuvring - Hotel Loading Bay with Eastern Shopping Centre Loading Bay Free	NOT FOR CONSTRUCTION	BITZIOS consulting
Project No: P3829	Project Name: 106 Jonson Street	0 4 8 12 16m Scale 1:400 (A3)	Sheet 4 / Version 001



Date: 18/06/2020	Drawing Name: Ground Floor Swept Path Assessment - MRV Manoeuvring - Hotel Loading Bay	NOT FOR CONSTRUCTION	BITZIOS consulting
Project No: P3829	Project Name: 106 Jonson Street	0 4 8 12 16m Scale 1:400 (A3)	Sheet 5 / Version 001

- ADMIN
- GOODS LIFT
- IT
- LIFT LOBBY
- MAINTENANCE STORE
- PWD
- SERVICE
- STAFF CANTEEN
- STAFF MALE ☐ FEMALE LOCKERS

Date: 18/06/2020	Drawing Name: Ground Floor Swept Path Assessment - B99 Manoeuvring - Curved Roadway Entrance	NOT FOR CONSTRUCTION	BITZIOS consulting
Project No: P3829	Project Name: 106 Jonson Street	0 4 8 12 16m Scale 1:400 (A3)	Sheet 6 / Version 001