ROSE GROUP

TRANSPORT REPORT FOR PROPOSED RESIDENTIAL MIXED USE DEVELOPMENT, 23 FISHER ROAD, DEE WHY

AUGUST 2018

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

Telephone: (02) 9411 2411
Facsimile: (02) 9411 2422
Email: cbrk@cbrk.com.au

REF: 10845

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by Rose Group to assess the transport implications of a proposed residential mixed use development at 23 Fisher Road, Dee Why. The site location is shown in Figure 1.

1.2 The site is on the corner of Fisher Road and St David Avenue, on the north-eastern corner of the intersection. It has previously been approved for 96 residential apartments. The proposed development is for 130 residential apartments, plus 320m^2 business space. The existing Pacific Lodge, a heritage building on the site, will be retained as a separate dwelling. Vehicular access is proposed from Fisher Road.

1.3 This report assesses the transport implications of the proposed development through the following chapters:

- Chapter 2 - describing the existing conditions; and
- Chapter 3 - assessing the implications of the proposed development.

2. EXISTING CONDITIONS

Site Location and Road Network

2.1 The site is at 23 Fisher Road at Dee Why, as shown in Figure 1. It is occupied by a disused Salvation Army aged care facility with access from Fisher Road. Surrounding land use includes commercial and retail development to the east and residential development to the west.

2.2 Fisher Road connects to Pittwater Road to the south. It provides for one traffic lane and one parking lane in each direction, clear of intersections. There are bus stops on both sides of the road, adjacent the site. Fisher Road provides access to adjacent commercial and residential development.

2.3 Fisher Road intersects St David Avenue at a signalized intersection, adjacent to the site. Lewis Street forms a fourth (western) approach to the intersection. All turns are permitted at the intersection. St David Avenue connects to Pittwater Road, east of the site. It provides for one traffic lane and one parking lane in each direction, clear of intersections. It provides access to commercial development.

2.4 Adjacent the site, McIntosh Road runs west from Fisher Road at a roundabout. There are two lanes on the Fisher Road approaches to the roundabout. McIntosh Road provides for one traffic lane in each direction, with parking permitted. It provides access to residential development. There is a pedestrian crossing west of Fisher Road.

Traffic Flows

2.5 Traffic generated by the proposed development would have its greatest effects during weekday morning and afternoon peak periods when it combines with commuter traffic. In order to gauge traffic conditions, counts were undertaken during weekday morning and afternoon peak periods at the intersections of Fisher Road with St David Avenue and McIntosh Road.

2.6 The results of the surveys are shown in Figures 2 and 3, and summarised in Table 2.1.

Table 2.1: Existing two-way (sum of both directions) peak hour traffic flows

Road	Location	AM peak hour	PM peak hour
Fisher Road	North of McIntosh Road	1,550	2,000
	North of St David Avenue	1,360	1,615
	South of St David Avenue	1,005	1,120
McIntosh Road	West of Fisher Road	830	920
St David Avenue	East of Fisher Road	445	630
Lewis Street	West of Fisher Road	380	655

2.7 Table 2.1 shows that Fisher Road carried some 1,000 to 2,000 vehicles per hour two-way during the surveyed morning and afternoon peak periods. McIntosh Road, St David Avenue and Lewis Street carried lower flows of some 400 to 900 vehicles per hour two-way.

Intersection Operation

2.8 The capacity of the road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The intersections of Fisher

Road with McIntosh Road and St David Avenue/Lewis Street have been analysed using the SIDRA program.

2.9 SIDRA simulates the operations of intersections to provide a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

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

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

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

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required

43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

2.10 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.

2.11 The SIDRA analysis found that the roundabout at the intersection of Fisher Road and McIntosh Road operates with average delays for the highest delayed movement of less than 20 seconds per vehicle during peak periods. This represents levels of service B, a good level of service.

2.12 The signalised intersection of Fisher Road with St David Avenue and Lewis Street operates with average delays of less than 20 seconds per vehicle during peak periods. This represents level of service B, a good level of service.

Public Transport

2.13 As previously discussed, the site is adjacent to bus services which operate along Fisher Road. Local bus services are provided by Sydney Buses. Services include:

- route 136: Chatswood to Manly;

- route 146: Wheeler Heights to Manly;
- route 169: Manly to city via Narraweena;
- route 178: Cromer Heights to city.

2.14 Numerous other services also operate along Pittwater Road, east of the site. The site therefore has good access to public transport services.

3. IMPLICATIONS OF PROPOSED DEVELOPMENT

3.1 The proposed development is for 130 residential apartments, plus 320m^2 business space. The existing Pacific Lodge, a heritage building on the site, will be retained as a separate dwelling. Vehicular access is proposed from Fisher Road. This chapter assesses the implications of the proposed development through the following sections:

- public transport, walking and cycling;
- parking provision;
- access and internal layout;
- traffic generation and effects; and
- summary.

Public Transport, Walking and Cycling

3.2 As previously discussed, the site is close to services and shops in Dee Why. It is also adjacent to bus services on Fisher Road and close to bus services on Pittwater Road, which provide links to surrounding areas.

3.3 The proposed development would increase residential densities close to existing public transport services.

3.4 The proposed development is therefore consistent with government objectives and the planning principles of:

(a) improving accessibility to employment and services by walking, cycling, and public transport;

(b) improving the choice of transport and reducing dependence solely on cars for travel purposes;

(c) moderating growth in the demand for travel and the distances travelled, especially by car; and

(d) supporting the efficient and viable operation of public transport services.

Parking Provision

3.5 Appendix 1 of the Warringah Development Control Plan 2011 (Car Parking Requirements) includes the following parking requirements:

- one space per one bedroom apartment;
- 1.2 spaces per two bedroom apartment;
- 1.5 spaces per three bedroom apartment;
- one space per five apartments for visitors; and
- one space per 40m^2 business premises (excluding customer service areas), plus one space per 16.4m^2 for customer service area.

3.6 The proposed development includes 39 one bedroom, 70 two bedroom and 22 three bedroom apartments (including Pacific Lodge) and 320m^2 business premises. Based on one space per 40m^2 for the business uses, the development would require 190 spaces, including 156 resident spaces and 34 visitor/business spaces.

3.7 The proposed provision is 191 spaces, which satisfies this requirement. Parking provision is therefore appropriate.

3.8 Appropriate disabled parking will be provided within the development. One business use space will be an accessible space.

Access and Internal Layout

3.9 Vehicular access to the development is proposed to be provided from Fisher Road. The main driveway to the car park would be provided at the roundabout at McIntosh Road. A second driveway would be provided north of this, for service vehicles.

3.10 The site driveways would be provided with appropriate widths, to accommodate the swept paths of cars and service vehicles, in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 2: Off-street commercial vehicle facilities), AS 2890.1:2004 and AS 2890.2 – 2002.

3.11 Within the development, two levels of parking will be provided. A ramp will connect the upper and lower parking levels. Ramp grades and transitions will be provided in accordance with AS 2890.1:2004.

3.12 A service vehicle area is proposed on the north-eastern part of the site. The area will provide for a garbage truck to enter, manoeuvre within the site and exit in a forward direction.

3.13 Within the car park, spaces will be a minimum of 5.4 metres long by 2.4 metres wide, with 5.8 metre wide circulation aisles and columns set back 750 mm from the front of spaces. Spaces with adjacent obstructions will be 0.3 metres wider. Disabled spaces will be 2.4 metres wide, with a 2.4 metre wide adjacent area for wheelchairs. Height clearance will be a minimum of 2.2 metres, with 2.5 metres above disabled spaces. These dimensions are considered appropriate, being in accordance with AS 2890.1:2004.

Traffic Generation and Effects

3.14 Traffic generated by the proposed development will have its greatest effects during morning and afternoon peak periods when it combines with commuter traffic. RMS surveys of traffic generation indicate that high density residential flat buildings generate 0.19 and 0.15 vehicles per hour per apartment (two-way) during weekday morning and afternoon peak hours respectively. Traffic generation for the business uses would be some two vehicles per hour per 100m^2 two-way during afternoon peak hours.

3.15 On this basis, the proposed development would generate some 25 to 30 vehicles per hour two-way during weekday peak hours. This is a low generation. It is also similar to the traffic generation of the approved development of some 15 to 20 vehicles per hour two-way.

3.16 The traffic generation of the proposed development is equivalent to an average of only one vehicle every two to 2½ minutes at peak times. Such a low generation would not have noticeable effects on the operation of the surrounding road network.

3.17 The intersections of Fisher Road with McIntosh Road (including the proposed site access) and St David Avenue have been re-analysed with SIDRA for the additional development traffic. The analysis found that the intersection of Fisher Road with McIntosh Road (including the site access) would operate with average delays for the highest delayed movement of less than 20 seconds per vehicle during peak periods. This represents level of service B, a good level of service.

3.18 The intersection of Fisher Road with St David Avenue would continue to operate with average delays of less than 20 seconds per vehicle. This represents level of service B, a good level of service.

3.19 Therefore, the road network will cater for the traffic generation of the proposed development.

Summary

3.20 In summary, the main points relating to the transport implications of the proposed development are as follows:

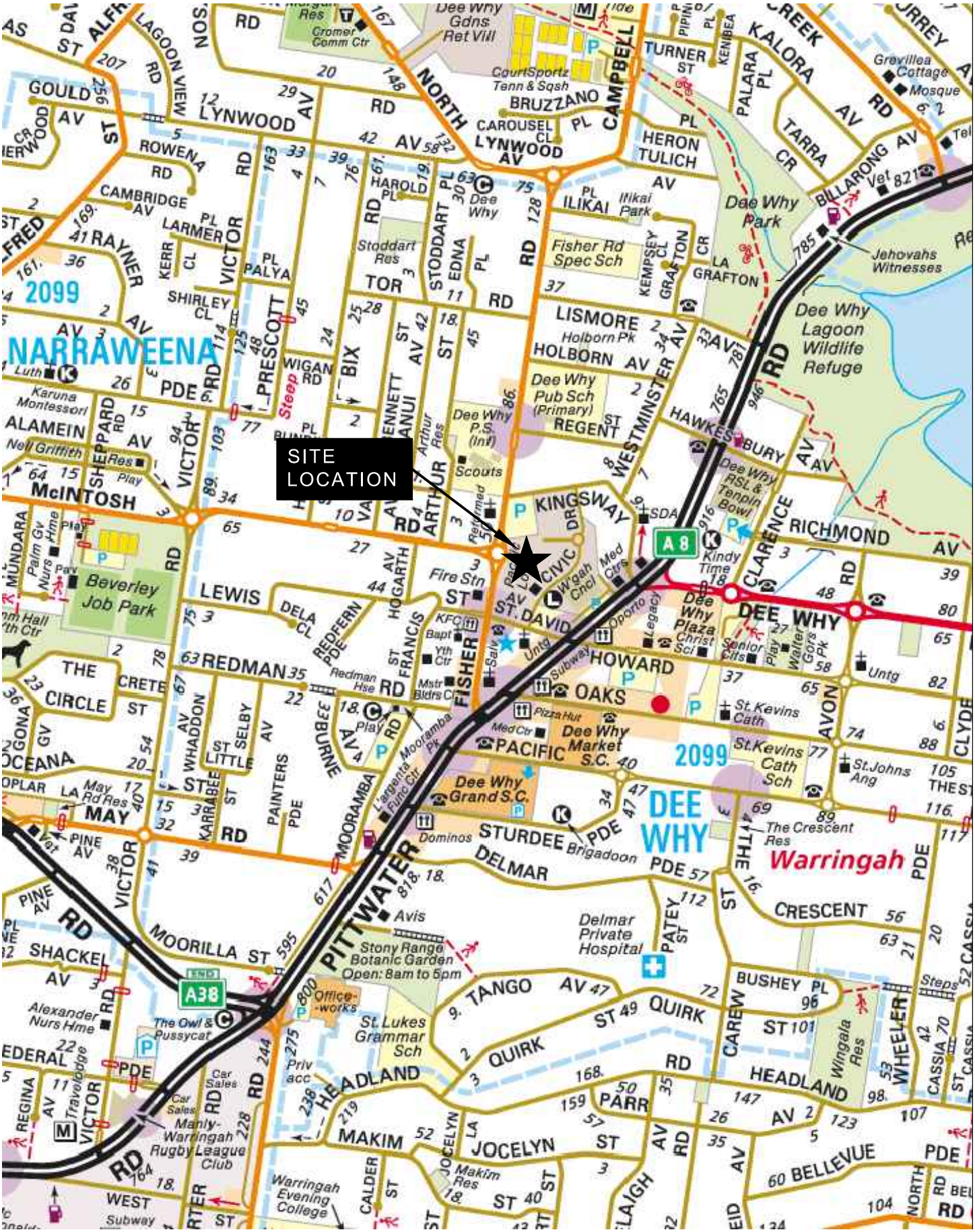
i) the proposed development would increase residential densities close to good public transport services and services and facilities in Dee Why;

ii) the proposed parking provision is appropriate;

iii) access and internal layout will be provided in accordance with AS 2890.1:2004 and AS 2890.2 – 2002;

iv) the proposed development will have a low traffic generation; and

v) the surrounding road network will be able to cater for the low traffic generation.



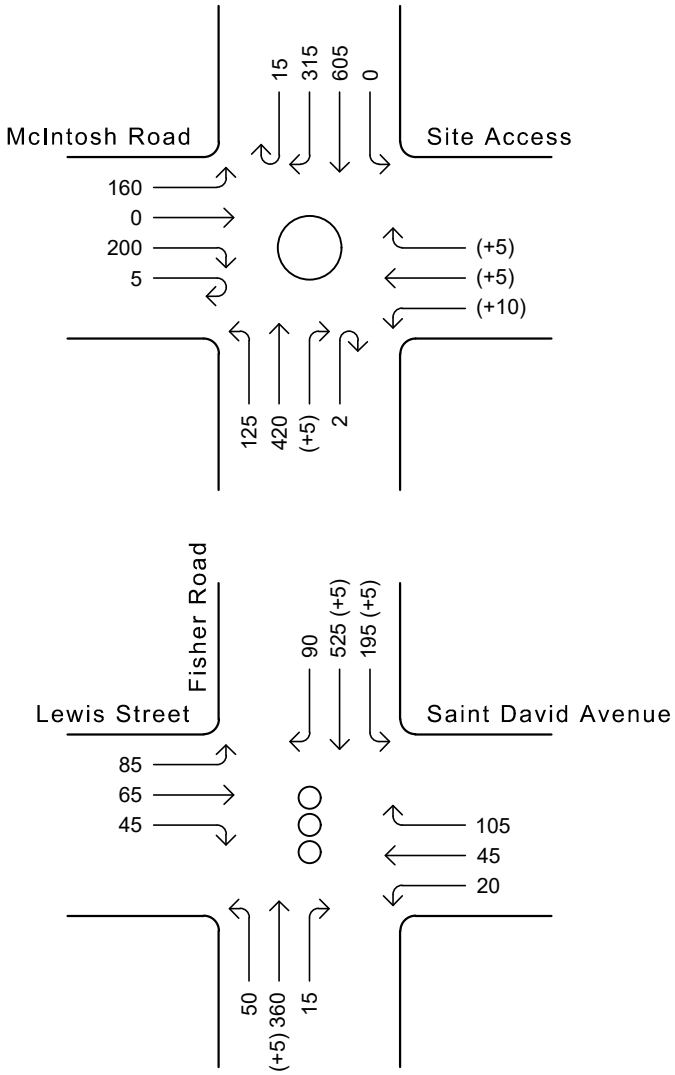
Location Plan

Colston Budd Rogers & Kafes Pty Ltd

DRAWN BY CBRK Pty Ltd_hs/mc Ref: 10845 18.07.2018

Figure 1

North



LEGEND

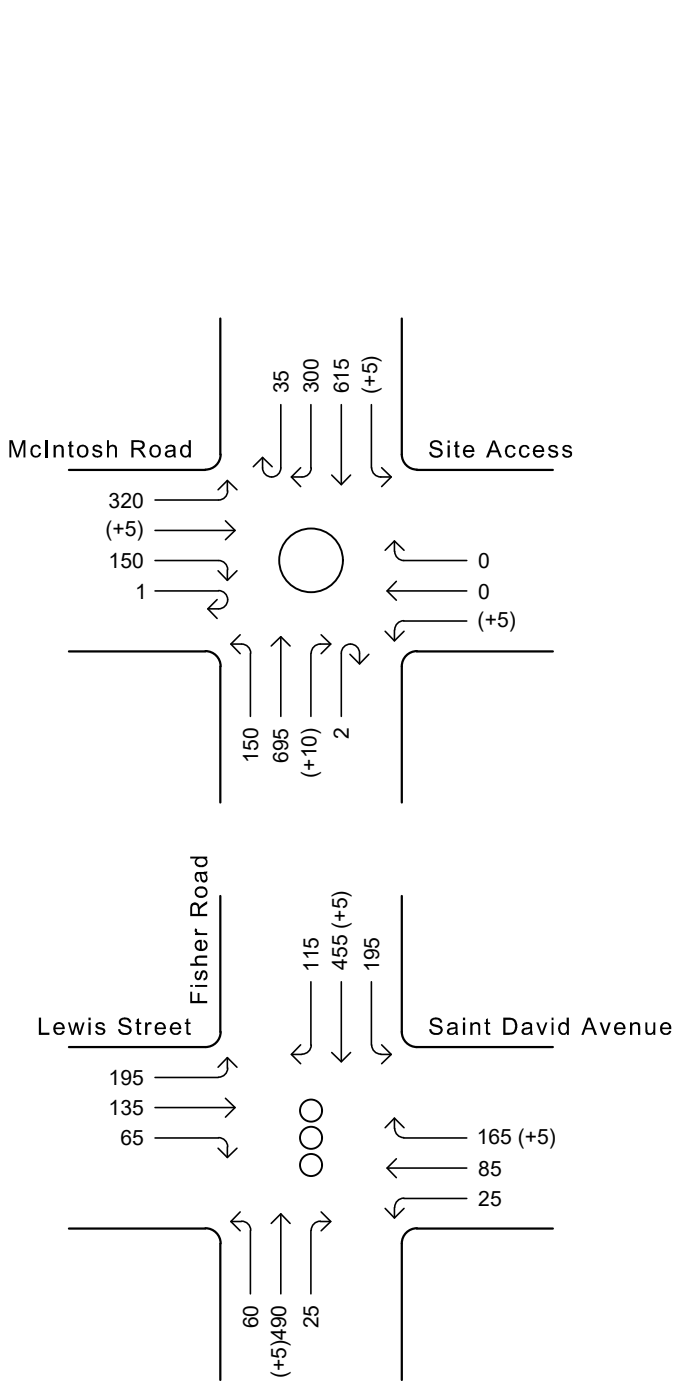
100 - Existing Peak Hour Traffic Flows
(+10) - Additional Development Traffic
- Traffic Signals
- Roundabout

Existing weekday morning peak hour traffic flows plus development traffic

Figure 2

Colston Budd Rogers & Kafes Pty Ltd

DRAWN BY CBRK Pty Ltd_hs/mc Ref: 10845 18.07.2018



LEGEND

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

Existing weekday afternoon peak hour traffic flows plus development traffic

Figure 3

Colston Budd Rogers & Kafes Pty Ltd

DRAWN BY CBRK Pty Ltd_hs/mc Ref: 10845 18.07.2018