TRAFFIC AND PARKING IMPACT ASSESSMENT OF ALTERATIONS AND ADDITIONS TO GREENHOUSE TAVERN AT 4/4A BRAY STREET, COFFS HARBOUR

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210047.01FA - 25th May 2021

Development Type: **Alterations and Additions to Greenhouse Tavern**

Site Address: **4/4A Bray Street, Coffs Harbour**

Prepared for: **Design Collaborative**

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TABLE OF CONTENTS

1 INTRODUCTION

M^CLaren Traffic Engineering (MTE) was commissioned by *Design Collaborative* to provide a traffic and parking impact assessment of the proposed alterations and additions to Green House Tavern at 4/4A Bray Street, Coffs Harbour. The proposed development is shown on reduced plans reproduced in **Annexure A** for reference.

1.1 Description and Scale of Development

The existing site has the following characteristics relevant to traffic and parking:

- Existing Greenhouse Tavern with 1652m^2 Tavern Area comprising of:
    - 278m^2 Drive-thru Bottleshop;
    - 90m^2 Gaming Room;
    - 803m^2 Bar Area;
    - 130m^2 Beer Garden;
    - 351m^2 Outdoor Deck Area;
    - 65 car parking spaces (including 2 disabled car parking spaces).
- Existing Food and Drink Tenancy (currently vacant) with 694m^2 GFA and 78 car parking spaces (including 2 disabled spaces).

The proposed development has the following characteristics relevant to traffic and parking:

- The internal renovation and fit out of the existing tavern building with 1652m^2 Tavern Area comprising of:
    - 256m^2 Gaming room;
    - 782m^2 Bar Area;
    - 97m^2 Beer Garden;
    - 409m^2 Outdoor Deck Area;
    - 67 car parking spaces (including 2 disabled car parking spaces).
- 694m^2 GFA drive-through bottle shop with 74 car parking spaces (including 2 disabled parking spaces);
- Existing car parking to remain generally unchanged.

1.2 State Environmental Planning Policy (Infrastructure) 2007

The proposed development has frontage to a classified road and therefore qualifies as such with reference to *Clause 101 of SEPP (Infrastructure) 2007*. The development therefore must satisfy that:

> *The consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that –*
>
> *(a) where practicable and safe, vehicular access to the land is provided by a road other than the classified road, and*

(b) the safety, efficiency, and ongoing operation of the classified road will not be adversely affected by the development as a result of:

i. the design of the vehicular access to the land.

ii. the emission of smoke or dust from the development

iii. the nature, volume or frequency of vehicles using the classified road to gain access to the land.

An assessment of the proposal against the criteria provided in Clause 101 of SEPP (Infrastructure) is undertaken in **Section 4.4**.

1.3 Site Description

The subject site is currently zoned *B6 – Enterprise Corridor* under the *Coffs Harbour Council LEP 2013* and is currently occupied by Greenhouse Tavern and a vacant food and drink premises. The site has frontages to Pacific Highway to the east and Bray Street to the south.

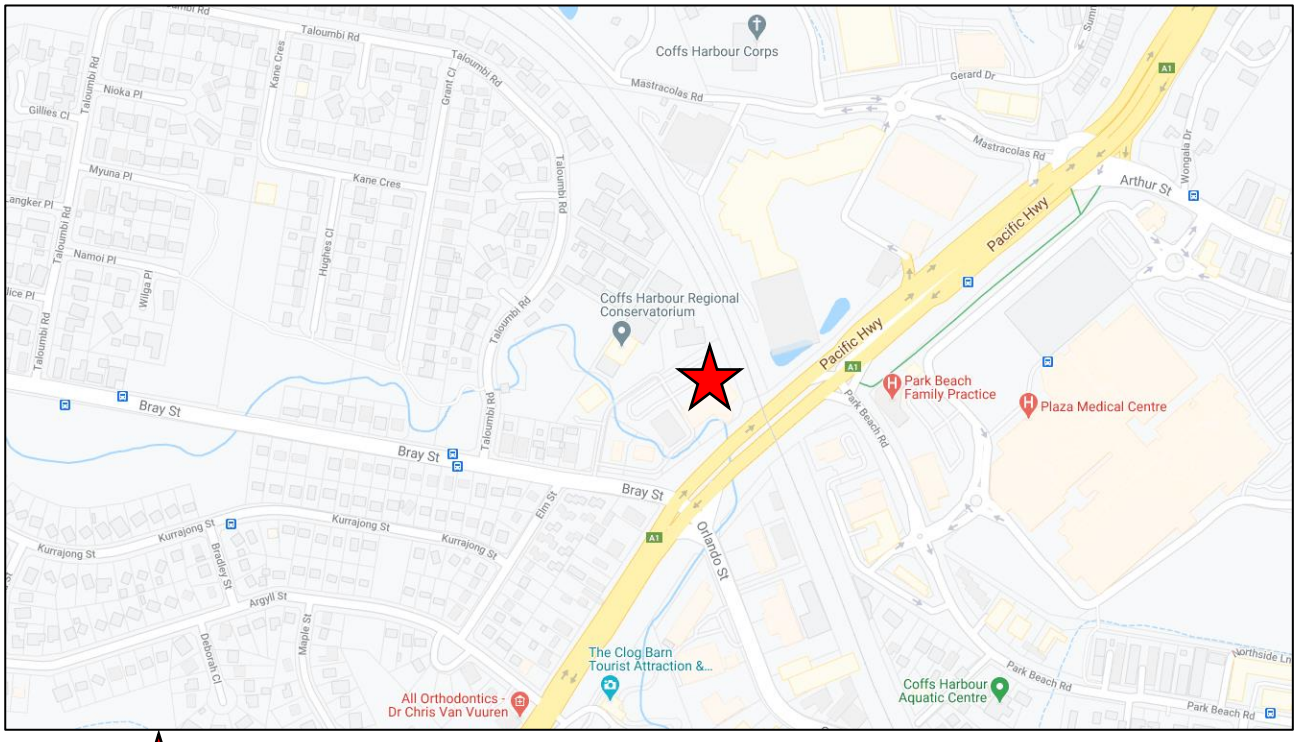
The site is generally surrounded by low-medium density residential developments to the south and west and commercial developments to the north and east. Park Beach Plaza (shopping centre) is located to the east of the site while Park Beach Home Base (shopping centre) is located to the north of the site. The North West NSW train line is located along the northern boundary of the site.

1.4 Site Context

The site location is shown on aerial imagery and a street map in **Figure 1** and **Figure 2** respectively.

Site Location

FIGURE 1: SITE CONTEXT – AERIAL PHOTO



Site Location

FIGURE 2: SITE CONTEXT – STREET MAP

2 TRAFFIC AND PARKING CONDITIONS

2.1 Road Hierarchy

The road network within close proximity of the site has characteristics as described in the following sub-sections.

2.1.1 Pacific Highway

- TfNSW Classified STATE Highway (No. 10);
- Approximately 25m wide two-way carriageway, including median, facilitating two (2) traffic flow lanes and kerbside parking in both directions. Additional turn and merge lanes provided at key intersections;
- Signposted 60km/h speed limit;
- Unrestricted kerbside parking permitted along the eastern side of the road and 'No Stopping, 4pm-6pm, MON-FRI' along the western side of the road south of Bray Street. No stopping permitted along both sides of the road to the north of Bray Street.

2.1.2 Bray Street

- Unclassified COLLECTOR Road;
- Approximately 12m wide two-way carriageway facilitating one (1) traffic flow lane in both directions and kerbside parking along both sides of the road;
- Signposted 50km/h speed limit to the west of the site and 60km/h speed limit along the site access driveway;
- 'No Stopping' restrictions on the southern side of the road east of Elm Street and 'No Stopping' restriction on the northern side of the road west of Taloumbi Road;
- Generally, unrestricted kerbside parking permitted outside of the 'No Stopping' zone above.

2.2 Existing Traffic Management

- Signal controlled intersection of Pacific Highway / Bray Street / Orlando Street;
- Priority controlled 'Keep Clear' intersection of Bray Street / site access driveway;
- Priority controlled intersection of Bray Street / Elm Street;
- Priority controlled intersection of Bray Street / Taloumbi Road;
- Signal controlled intersection of Pacific Highway / Park Beach Road.

2.3 Patron and Parking Survey Results

2.3.1 Patron Surveys

Patronage surveys were conducted at Green House Tavern on three days, being Friday 12th, Friday 26th and Saturday 27th of March 2021, to determine the typical travel mode to and from the Tavern for patrons.

Patron surveys were undertaken at half hourly intervals, with the location of patrons within the premises. The results are summarised in **Table 1** and the data provided in **Annexure B** for reference.

TABLE 1: PATRON ACCUMULATION

Time	Patrons		
	12/05/2021	**26/05/2021**	**27/05/2021**
16:00	41	32	71 (12)
16:30	46	37 (1)	103 (24)
17:00	54	87	103 (25)
17:30	78 (2)	105 (2)	94 (18)
18:00	101 (8)	119 (6)	114 (22)
18:30	116 (11)	**125 (6)**	146 (37)
19:00	**140 (19)**	111 (5)	**155 (42)**
19:30	132 (21)	111 (3)	138 (32)
20:00	118 (15)	97 (4)	122 (21)
20:30	83 (13)	55	108 (17)
21:00	76 (11)	46	87 (19)

Notes:

(1) The number of children observed is shown in brackets and included within the total patron count.

(2) Peak patronage noted in bold.

2.3.2 Parking Accumulation from Tube Count Surveys

Seven-day parking accumulation surveys were undertaken from 15 March 2021 to 22 March 2021 and 22 March 2021 to 29 March 2021. The car parking areas surveyed are illustrated in **Figure 3**. The existing car park acts in a shared arrangement between all tenancies within close proximity as there is no restriction on parking for different users. The total number of shared parking spaces between the tenancies is 398. The results of the parking accumulation is summarised in **Table 2** and the survey data provided in **Annexure C** for reference.

Subject site buildings Parking accumulation survey area

FIGURE 3: PARKING ACCULATION SURVEY AREA

TABLE 2: MINIMUM AVAILABLE PARKING WITHIN EXISTING CARPARK

Week	Friday	Saturday
Week 1 (15/03/2021 to 22/03/2021)	306(1) (77%)	239(1) (60%)
Week 2 (22/03/2021 to 29/03/2021)	174(2) (44%)	190(3) (48%)

Notes:

(1) Peak Hour between 12:00-13:00;

(2) Peak Hour between 17:00-18:00;

(3) Peak Hour between 18:00-19:00;

As shown above there is a minimum of **174** spare car parking spaces within the existing car parking area equating to a minimum **44%** spare car parking capacity. It cannot be determined which parked car was associated with the individual tenancies, therefore, it is assumed that the parking associated with the tavern is also operating with a minimum spare capacity of **43.7%**.

2.4 Existing Traffic Environment

Turning movement count surveys were conducted at the intersections of Bray Street / Site Driveway, Bray Street / Pacific Highway and Pacific Highway / Park Beach Road from 2:00pm to 7:00pm on Friday 19 March 2021 and Saturday 20 March 2021 representing a typical operating weekday. The full survey results are shown in **Annexure D** for reference.

2.4.1 Existing Road Performance

The performance of the surrounding intersections under the existing traffic conditions has been assessed using SIDRA INTERSECTION 9.0. The intersection models have been calibrated using observed queues during the peak 15 minutes. **Table 3** summarises the resultant intersection performance data, with full SIDRA results reproduced in **Annexure E**.

TABLE 3: EXISTING INTERSECTION PERFORMANCES (SIDRA INTERSECTION 9.0)

Intersection	Peak Hour	Degree of Saturation[1]	Average Delay[2] (sec/veh)	Level of Service[3][4]	Control Type	Worst Movement	95th Percentile Queue
EXISTING PERFORMANCE							
Bray St /Site Driveway	FRI	0.46	3.1 (Worst: 21.3)	**NA** (Worst: B)	Give Way	RT from Site Driveway	2.9 veh (20.7m) Bray St
	SAT	0.46	3.4 (Worst: 25.2)	**NA** (Worst: B)		RT from Site Driveway	2.4 veh (16.9m) Bray St
Pacific Hwy /Orlando St	FRI	1.00	54.1	**D**	Signals	RT from Orlando St	34.8 veh (251.3m) Pacific Hwy
	SAT	0.74	35.3	**C**		RT from Pacific Hwy	15.3 veh (108.8m) Pacific Hwy
Pacific Hwy /Park Beach Rd	FRI	0.61	18	**B**	Signals	RT from Park Beach Rd	8.6 veh (63.9m) Pacific Hwy
	SAT	0.58	18.5	**B**		RT from Park Beach Rd	12.1 veh (86.7m) Pacific Hwy

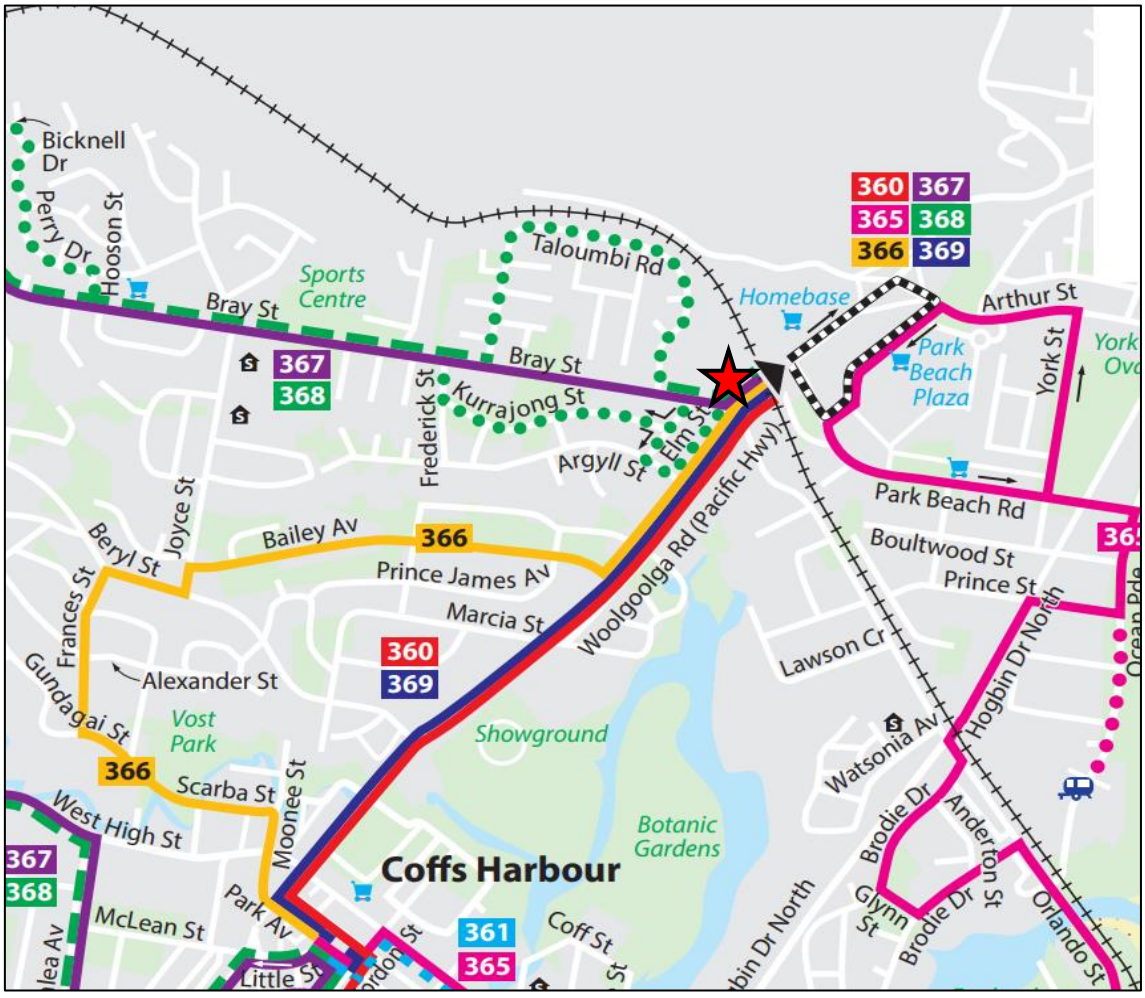
NOTES:
(1) The Degree of Saturation is the ratio of demand to capacity for the most disadvantaged movement.
(2) The average delay is the delay experienced on average by all vehicles. The value in brackets represents the delay to the most disadvantaged movement.
(3) The Level of Service is a qualitative measure of performance describing operational conditions. There are six levels of service, designated from A to F, with A representing the best operational condition and level of service F the worst. The LoS of the intersection is shown in bold, and the LoS of the most disadvantaged movement is shown in brackets.
(4) No overall Level of Service is provided for Give Way and Stop controlled intersections as the low delays associated with the dominant movements skew the average delay of the intersection. The Level of Service of the worst approach is an indicator of the operation of the intersection, with a worse Level of Service corresponding to long delays and reduced safety outcomes for that approach.

As shown, the intersection of Bray Street / Site Driveway and Pacific Highway / Park Beach Road are operating with a high level of service of “B” which is characterised by low approach delays and spare capacity. The intersection of Pacific Highway / Orlando Street / Bray Street is operating at LoS “D” which indicates that the intersection is operating near capacity.

2.5 Public Transport

The subject site has access to existing bus stops (ID: 245041 and 2450117) located approximately 200m and 400m walking distance to the west and south of site on Bray Street and Pacific Highway, respectively. The bus stops service existing bus Routes 360 (Macksville to Coffs Harbour), 363 (Toormina to Coffs Harbour via Boambee East), 364 (Toormina to Coffs Harbour via Sawtell), 366 (Park Beach Plaza to Coffs Harbour City Centre), 367 (Park Beach Plaza to Coffs Harbour City Centre via Donn-Patterson Drive), 369 (Coffs Harbour Health Campus to Park Beach Plaza via Park Ave), and 372 (Grafton to Coffs Harbour via Woolgoolga) provided by Busways and Forest Coach Lines.

The location of the site subject to the surrounding public transport network is shown in **Figure 4**.



Site Location

FIGURE 4: PUBLIC TRANSPORT NETWORK MAP

2.6 Future Road and Infrastructure Upgrades

From the Coffs Harbour City Council and RMS Projects tracker and website, it appears that there are no future planned road or public transport changes that will affect traffic conditions within the immediate vicinity of the subject site.

3 PARKING ASSESSMENT

3.1 DCP Parking Requirement

Reference is made to *Coffs Harbour Development Control Plan 2015 – Part F: General Developmental Controls* which outlines the following car parking requirements for the proposed development.

> *Shops / Neighbourhood Shops / Takeaway Food and Drink Premises / Cellar Door Premises / Kiosks / Restricted Premises*
>
> *One space per 25m^2 GLFA*
>
> *Pubs / Small Bars*
>
> *Subject to parking study*
>
> *Calculations are to be rounded up to the nearest whole number e.g. if the calculation determines that 2.3 car parking spaces are required, then three parking spaces are required.*

The proposed drive-through bottle shop requires the provision of **28** (694/25) car parking spaces. A parking study has been undertaken at the site to determine the peak parking demand for the pub use of the site, further detailed in the section below.

3.2 MTE Tavern Parking Demand Analysis – Existing Scale

3.2.1 Patron Demand Analysis

The *RMS Guide to Traffic Generating Developments 2002* prescribes that "*Off-street car parking must be provided to satisfy the average maximum demand*" for taverns. The subject site is zoned B6 – Enterprise Corridor and is within close proximity to R2 – Low Density Residential. Therefore, to reduce any impacts on the residential amenity, the proposed development must provide sufficient off-street parking to cater for the 85th percentile parking demand on peak days being Fridays and Saturdays.

A year's worth of sales transactions at the existing Greenhouse Tavern was obtained to determine a correlation of the peak patron numbers and the number of transactions that occurred in a day. The year worth of sales transactions was obtained in the year prior to the lock downs associated with COVID-19. A headcount survey was undertaken on 12/03/21, 26/03/21 & 27/03/21 which counted the number of patrons inside the tavern between 4pm-9pm, the survey results are summarised in **Section 2.3.1** and detailed results are provided **Annexure B** for reference. The detailed data from the sales transactions is also provided in **Annexure F**.

The peak number of patrons was regressed against the number of transactions in a day. The regression analysis presented in **Figure 5** was undertaken which resulted in an R^2 value of **0.999** representing a very strong correlation between peak patrons and number of sales over a day.

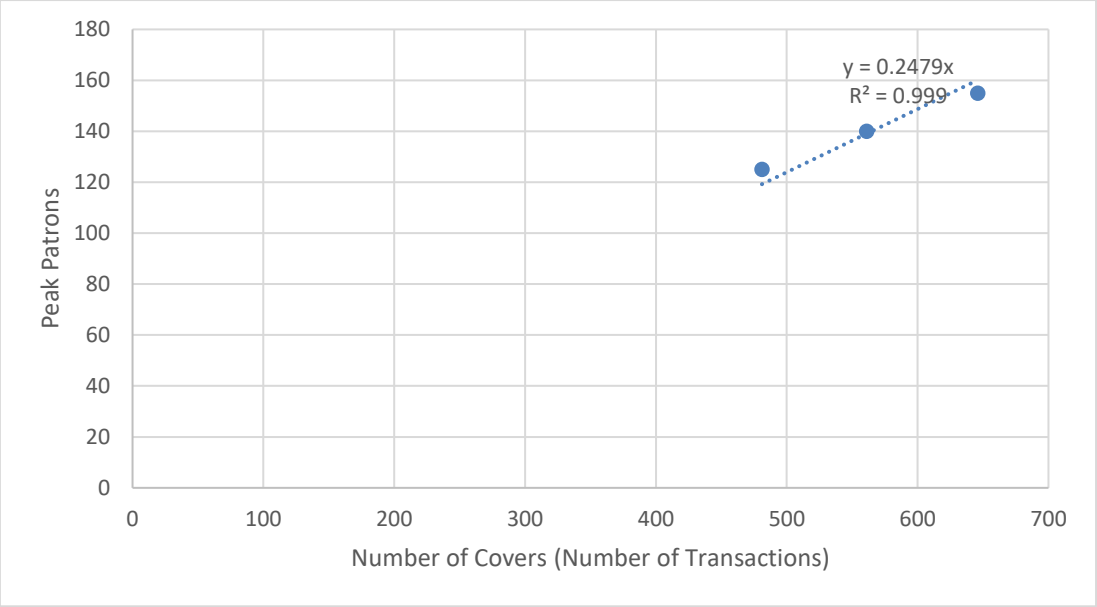


FIGURE 5: GREENHOUSE TAVERN– PATRON NUMBER REGRESSION

The sales transaction data on Fridays and Saturdays over the year were ordered by number of transactions to determine the percentile 'business' on each day and subsequently the percentile 'business' on the days that the headcount surveys were undertaken. By relating the existing parking demand to the percentile 'business' the 85th percentile peak patron number of the tavern was determined to be **198** (0.2479*799) patrons. The patron percentile demand of the tavern is presented in **Figure 6** below with the 85th percentile demand highlighted in red.

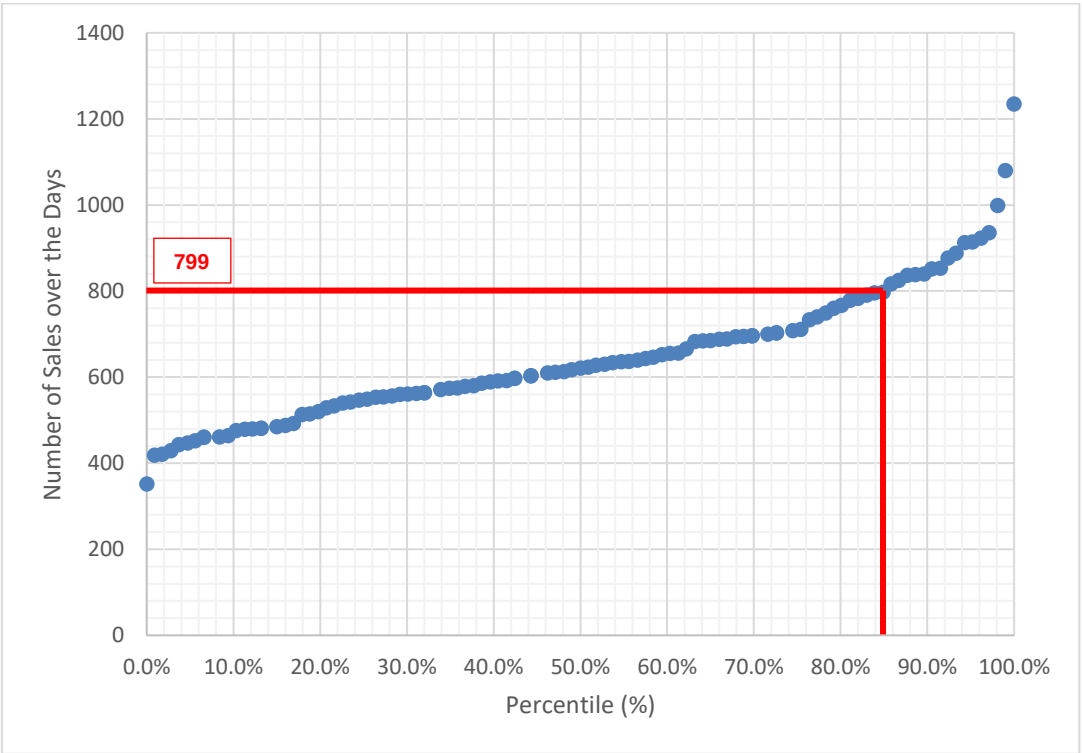


FIGURE 6: GREENHOUSE TAVERN– PATRON PERCENTILE DEMAND

3.2.2 Patron Mode of Transport

During the parking and headcount survey period patron interviews were also undertaken to determine the method of transportation that patrons used to arrive at the site. A summary of the mode of arrival of the surveyed patrons is shown in **Table 4** below.

TABLE 4: SURVEYED PATRON MODE OF TRANSPORT

Date	Car driver	Car passenger	Walked	Dropped off	Taxi	Percent Drivers
12/03/21	91	131	0	17	3	**37.6%**
26/03/21	101	75	0	19	4	**50.7%**
27/03/21	90	129	3	12	12	**36.4%**
Average						**41.6%**

As shown above the existing percentage of patrons that drive to the tavern is **41.59%**.

3.2.3 Patron Parking Demand

The patron driver percentage is applied to the 85th percentile patron demand of 198, results in an existing 85th percentile parking demand of **82** (198 x 41.6%) car parking spaces for patrons. A summary of the parking demand on the surveyed days and subsequent 85th percentile parking demand is presented in **Table 5** below.

TABLE 5: PATRON PARKING DEMAND OF THE EXISTING TAVERN

Date	Peak number of Patrons	Percentile Day	Percent Drivers	Patron Parking Demand
Friday: 12/05/2021	140	30th percentile	37.6%	53
Friday: 26/05/2021	125	13th percentile	50.7%	63
Saturday: 27/05/2021	155	58th percentile	36.4%	56
85th Percentile	198	85th percentile	41.6%	**82**

3.2.4 Staff Parking Demand

The existing staff numbers of the tavern is a peak of 15 staff which equates to a demand of **15** car parking spaces assuming each staff member drives to the site as a conservative assessment.

3.3 Future Parking Demand Analysis

The above parking demand has been used to derive an existing patron parking rate per square meter for the existing development. The GFA of the licensed areas for the existing tavern totals 1,374m^2 (excludes bottleshop area). Therefore, the 85th percentile patron demand of the tavern is 1 patron per 6.94m^2 of licensed GFA (1374/198), or 1 patron car parking space per 16.76m^2 of licensed GFA (1,374/82).

To assess the parking demand of the proposed alterations and additions to the tavern a comparison of the existing and the proposed scales are provided in **Table 6** below. A diagram of the assessed GFA's is provided in **Annexure G**.

TABLE 6: COMPARISON OF EXISTING AND PROPOSED TAVERN SCALES

Type	Description	Scale		
		Existing	**Proposed**	**Change in Scale**
Bottle Shop	-	278m^2	0m^2 (1)	-278m^2
Licensed Area	Bar	803m^2	782m^2	-21m^2
	Outdoor Deck Area	351m^2	409m^2	+58m^2
	Gaming	90m^2	256m^2	+166m^2
	Beer Garden	130m^2	97m^2	-33m^2
Total		**-**	**-**	**+ 170m^2 Licensed Area**

Notes:

(1) The future bottle shop will be relocated to the currently vacant tenancy.

As shown above the proposed alterations and additions will relocate the bottleshop and increase the licensed area of the tavern. To determine the expected parking demand of the proposed site these changes shall be added to the existing parking demand determined in **Section 3.2**.

The following additional parking demand has been determined:

- +170m^2 of licensed area:
    - **+24** patrons based on 1 patron per 6.94m^2 licensed area;
    - **+10** car parking spaces based on 1 per 16.76m^2 licensed area.

The parking demand of the proposed tavern and drive thru bottleshop is presented in **Table 7** below.

TABLE 7: PROPOSED TAVERN PARKING DEMAND

Land Use	Percentile day	Scale	Rate	Parking Required
Existing Development				
Tavern Licensed Area	85th	1374m^2	1 per 16.76m^2	82
		15 Staff	1 per staff	15
Bottle Shop	-	278m^2 GFA	1 per 25m^2 (1)	11
Food and Drink Premise (vacant)	-	694m^2 GFA	1 per 25m^2 (1)	28
Sub-Total	**-**	**-**	**-**	**136**
Future Development				
Tavern Licensed Area	85th	1544m^2	1 per 16.76m^2	92
	-	15 Staff (2)	1 per staff	15
Bottle Shop	-	694m^2 GFA	1 per 25m^2 (1)	28
Sub-Total	**-**	**-**	**-**	**135**
Net Increase	**-**	**-**	**-**	**-1**

Notes:

(1) DCP parking rate.
(2) No additional staff assumed for the future development.

As shown above the 85th percentile car parking demand of the proposed development results in a parking requirement of some **135** car parking spaces. The site provides a total of **143** off-street car parking representing a numerical surplus of some eight (8) car parking spaces above the 85th percentile car parking demand.

3.4 Mini-Bus Shuttle Service

The existing tavern utilises the operation of a courtesy bus which transports patrons to and from the site from the local area. In ***MTE's*** experience, the utilisation of a mini-bus is typically equivalent to the provision of 20-30 extra car parking spaces. The courtesy bus will continue operation under the future scenario of the proposed development.

3.5 Bicycle & Motorcycle Parking Requirements

Coffs Harbour Council DCP does not provide rates for bicycle parking/storage or motorcycle parking / storage for licensed premises and as such does not require the provision of this facility.

3.6 Servicing & Loading

No changes are proposed to the loading dock area of either site as part of the proposed alteration and additions. The loading operation of the site is not expected to change significantly under the proposed scenario. Swept path tests of an 8.8m Medium Rigid Vehicle (MRV) vehicle circulating through the existing car park to the proposed loading zone has been undertaken with the results presented in **Annexure H**.

3.7 Disabled Parking

Reference is made to *Coffs Harbour DCP 2015 – Part F: General Development Controls* which outlines the following disabled car parking requirement.

F1.5 On-Site Parking – Non Residential Uses

(3) Accessible parking spaces are to be provided in accordance with the Disability (Access to Premises – Building Standards) 2010

The proposed tavern falls within a building Class 6 classification under the BCA and as such, has the following requirements for disabled parking provision:

Class 6

1 space for every 50 carparking spaces or part thereof.

The above parking requirements result in a total requirement for one (3) disabled parking spaces to be provided on site. The existing car parking area provides four (4) disabled car parking spaces, satisfying BCA disabled car parking requirements.

3.8 Car Park Design & Compliance

The car parking layout as depicted in **Annexure A** is an existing and approved car parking layout and as such has not been assessed by MTE against the objectives of *AS2890.1:2004*, *AS2890.2:2002* or *AS2890.6:2009*. Swept path tests of a B99 vehicle circulating through the proposed drive-thru bottle shop have been undertaken with the results presented in **Annexure H**.

4 TRAFFIC ASSESSMENT

4.1 Traffic Generation

The operation of the Tavern will not substantially change as a result of this application. However, the drive-through bottle shop GFA is proposed to be increased. *RMS Guide to Traffic Generating Developments 2002* does not specifically outline any traffic generation rate for a drive-through bottle-shop. As such, the Dan Murphy's bottle shop located at 100-102 Grafton Street, Coffs Harbour was surveyed on Friday 19 March 2021 between 2:00pm and 9:00pm and Saturday 20 March 2021 between 10:00am and 3:00pm to determine the peak hour trips per m^2 GFA. The results of the survey are presented in **Annexure D** and are summarised in **Table 8.**

TABLE 8: DAN MURPHY'S TRIP GENERATION SUMMARY

Scale	Friday Peak Hour Trips	Saturday Peak Hour Trips
Approx. 1150m^2 GFA(1)	262 trips (2)	227 trips (3)
Trips per m^2 GFA	**1 per 4.4m^2 GFA**	**1 per 5.1m^2 GFA**

Notes:

(1) Based on aerial imagery of the Dan Murphy's building.
(2) Peak hour between 4:00pm-5:00pm
(3) Peak hour between 1:00pm-2:00pm.

As shown above, the Friday and Saturday peak hour traffic generation rate are 1 trip per 4.4m^2 and 1 trip per 5.1m^2, respectively. The resulting traffic generation of the proposed drive-through bottle shop is outlined in **Table 9**.

TABLE 9: TRAFFIC GENERATION

Land Use	Day	Scale	Rate	Traffic Generation	Trip Distribution	
					Inbound	Outbound
Existing Development						
Drive-Through Bottle Shop	Friday	278m^2	1 per 4.4m^2	63	32	31
	Saturday		1 per 5.1m^2	55	28	27
Future Development						
Drive-Through Bottle Shop	Friday	694m^2	1 per 4.4m^2	158	79	79
	Saturday		1 per 5.1m^2	136	68	68
Net Change	**Friday**	**-**	**-**	**+ 95**	**+ 47**	**+ 48**
	Saturday			**+ 81**	**+ 40**	**+ 41**

As shown above, the proposed increase of the Bottle-Shop GFA results in a net increase of **95** trips (47 inbound, 48 outbound) and **81** trips (40 inbound, 41 outbound) during the Friday and Saturday peak hours, respectively.

4.2 Traffic Assignment

The road network, traffic surveys and locations of residential areas surrounding the site have been assessed and the following traffic assignment has been assumed for all traffic to and from the site:

- 25% to / from the west via Bray Street;
- 35% to / from the north via Pacific Highway;
- 30% to / from the south via Pacific Highway;
- 10% to / from the east via Orlando Street.

4.3 Traffic Impact

The traffic generation outlined in **Section 4.1** & **4.2** above has been added to the existing traffic volumes recorded. SIDRA INTERSECTION 9.0 was used to assess the intersections performance. The purpose of this assessment is to compare the existing intersection operations to the future scenario under the increased traffic load. The results of this assessment are shown in **Table 10**.

TABLE 10: INTERSECTION PERFORMANCE (SIDRA INTERSECTION 9.0)

Intersection	Peak Hour	Degree of Saturation[1]	Average Delay[2] (sec/veh)	Level of Service[3][4]	Control Type	Worst Movement	95th Percentile Queue
EXISTING PERFORMANCE							
Bray St /Site Driveway	FRI	0.46	3.1 (Worst: 21.3)	**NA** (Worst: B)	Give Way	RT from Site Driveway	2.9 veh (20.7m) Bray St
	SAT	0.46	3.4 (Worst: 25.2)	**NA** (Worst: B)		RT from Site Driveway	2.4 veh (16.9m) Bray St
Pacific Hwy /Orlando St	FRI	1.00	54.1	**D**	Signals	RT from Orlando St	34.8 veh (251.3m) Pacific Hwy
	SAT	0.74	35.3	**C**		RT from Pacific Hwy	15.3 veh (108.8m) Pacific Hwy
Pacific Hwy /Park Beach Rd	FRI	0.61	18	**B**	Signals	RT from Park Beach Rd	8.6 veh (63.9m) Pacific Hwy
	SAT	0.58	18.5	**B**		RT from Park Beach Rd	12.1 veh (86.7m) Pacific Hwy
FUTURE PERFORMANCE							
Bray St /Site Driveway	AM	0.62	4.4 (Worst: 26.7)	**NA** (Worst: B)	Give Way	RT from Site Driveway	2.9 veh (20.2m) Bray St
	PM	0.61	4.5 (Worst: 30.6)	**NA** (Worst: C)		RT from Site Driveway	2.4 veh (17.1m) Bray St
Pacific Hwy /Orlando St	AM	0.99	54.3	**D**	Signals	RT from Orlando St	36.3 veh (262.1m) Pacific Hwy
	PM	0.77	34.7	**C**		RT from Pacific Hwy	14.9 veh (105.7m) Pacific Hwy
Pacific Hwy /Park Beach Rd	AM	0.69	17.6	**B**	Signals	RT from Park Beach Rd	8 veh (59.9m) Pacific Hwy
	PM	0.60	17.9	**B**		RT from Park Beach Rd	11.7 veh (83.8m) Pacific Hwy

Notes: Refer to Table 3

As shown, the intersections of Bray Street / Site Driveway, Pacific Highway / Orlando Street / Bray Street and Pacific Highway / Park Beach Road all retain the same overall level of service under future conditions with minimal delays, indicating that there will be negligible impact on the existing road network as a result of the proposed development.

4.4 SEPP (Infrastructure) Clause 101

The proposed development has frontage to Pacific Highway, a classified road (No. 10) and as such an assessment against the criteria in *Clause 101 of SEPP (Infrastructure)* is presented below. The relevant items raised in Clause 101 are presented below (italicised) with MTE response thereafter.

> *(a) where practicable and safe, vehicular access to the land is provided by a road other than the classified road, and*

MTE Response: The access to the site is existing and provided via Bray Street which is an unclassified collector road.

> *(b) the safety, efficiency, and ongoing operation of the classified road will not be adversely affected by the development as a result of:*

i. the design of the vehicular access to the land.

MTE Response: The existing access is approximately 12m in width and includes "Keep Clear" linemarking to improve traffic flow efficiency for entering and exiting vehicles. **Section 4.3** demonstrates the proposed driveway will have negligible impact along Pacific Highway.

ii. the emission of smoke or dust from the development

MTE Response: For others to address but noted that parking demand and traffic generation would likely remain consistent with existing approvals.

iii. the nature, volume or frequency of vehicles using the classified road to gain access to the land.

MTE Response: Section 4 outlines the expected peak hour traffic generation and impact on the surrounding intersections. The traffic generation of the site will have negligible impact on the surrounding intersections.

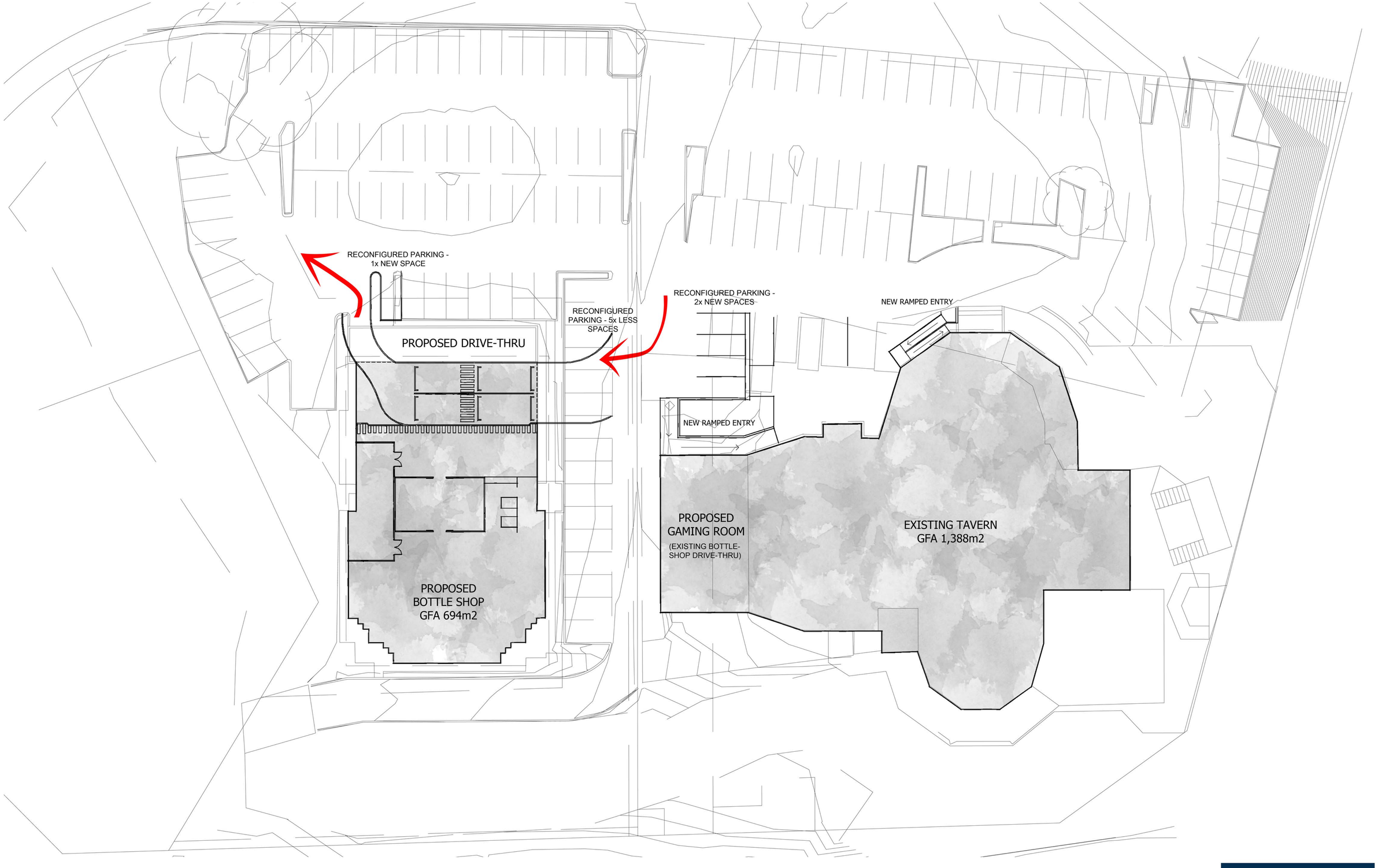
5 CONCLUSION

In view of the foregoing, the subject alterations and additions to Greenhouse Tavern proposal at 4/4A Bray Street, Coffs Harbour (as depicted in **Annexure A**) is fully supportable in terms of its traffic and parking impacts. The following outcomes of this traffic impact assessment are relevant to note:

- The proposal includes the provision of **143** car parking spaces within an existing carpark, satisfying the relevant controls applicable and anticipated 85th percentile parking demand of the site.
- Council's DCP does not require the provision of bicycle and motorcycle parking facilities.
- The parking areas of the site are an existing and approved car parking layout and as such has not been assessed by MTE against the objectives of *AS2890.1:2004*, *AS2890.2:2002* and *AS2890.6:2009*. Swept path testing of the proposed drive-thru bottleshop operation has been undertaken and the results are presented in **Annexure H**.
- The additional traffic generation of the proposed development has been estimated to be some **95** trips in the Friday PM peak period (47 in, 48 out) and **81** trips in the Saturday peak period (40 in, 41 out). The impacts of the traffic generation have been modelled using SIDRA INTERSECTION 9.0, indicating that there will be no detrimental impact to the performance of the intersections as a result of the generated traffic.

ANNEXURE A: PROPOSED PLANS

(2 SHEETS)



Cayas

Suite 2, 19-25 Musk Avenue, Kelvin Grove
PO Box 360, Wilston Q 4051
p 07 3356 6100 | f 07 3356 0664| e admin@cayasarchitects.com.au

ALH Group

Greenhouse Tavern

Sketch Site Plan - 1961-SK02 'A'

Project number - 1961 1:200@A1 Date - 12.02.20

Cayas

Suite 2, 19-25 Musk Avenue, Kelvin Grove
PO Box 360, Wilston Q 4051
p 07 3356 6100 | f 07 3356 0664| e admin@cayasarchitects.com.au

ALH Group

Greenhouse Tavern

Sketch Floor Plan - 1961-SK04 'A'
Project number - 1961 1:100@A1 Date - 12.02.20

ANNEXURE B: PATRON HEADCOUNT SURVEY RESULTS

(6 SHEETS)

Curtis Traffic Surveys

Head Count

Job: 210302mcl (21_0047)

Client: McLaren Traffic Engineering

Day, date 27/03/21

Location: Greenwood Tavern Coffs Harbour

Weather: Fine

Surveyor MC

	Rainforest Room Open Area		Rainforest Room		Deck open to public		Mahagony Room		Gaming Areas	Harbour Bar	Harbour Bar open area	Deck reserved for the "Colts"	
Time	Adults	Children	Adults	Children	Adults	Childre n	Adults	Children	Adults	Adults	Adults	Adults	Children
16:00	2	2	4	0	0	0	0	0	13	23	0	17	10
16:30	2	2	4	2	3	0	0	0	16	25	0	29	20
17:00	3	2	5	2	2	0	0	0	11	21	9	27	21
17:30	2	0	7	3	7	0	5	1	5	20	5	25	14
18:00	0	0	18	5	6	2	15	4	11	17	1	24	11
18:30	3	3	26	5	3	4	27	11	5	12	1	32	14
19:00	9	0	27	11	6	3	26	11	9	6	0	30	17
19:30	7	0	22	11	11	3	29	9	5	5	0	27	9
20:00	9	0	14	6	9	3	31	5	5	4	0	29	7
20:30	0	0	17	2	7	2	27	2	4	2	0	34	11
21:00	0	0	16	8	5	2	22	3	5	1	0	19	6

Curtis Traffic Surveys

Vehicle Occupancy & Arrival Mode

Job: 210302mcl (21_0047) *Tavern Mini Bus not in use*

Client: McLaren Traffic Engineering *Function for sporting club in most of the deck*

Day, date 27/03/21 *family groups arriving from before 16:00*

Location: Greenwood Tavern Coffs Harbour

Weather: Fine

Surveyor MC

Time Start	**Arriving vehicle occupancy**										
16:00	1	2	3	4	5	6+ specify	Taxi	Uber	Walk	Dropped off	Other (specify)
16:15	2	0	3	2	2		3	0	0	3	
16:30	2	1	2	0	0		0	0	0	1	
16:45	2	3	0	1	0		0	0	0	0	
17:00	2	2	0	1			0	0	0	4	
17:15	1	2	1	0	0		0	0	0	0	
17:30	0	2	1	1	0		0	0	0	4	
17:45	1	6	0	1	0		0	0	0	0	
18:00	5	3	3	0	2		0	0	0	3	1 motorcycle
18:15	0	3	1	3	1		0	0	0	0	
18:30	5	3	3	2	1		0	0	0	0	
18:45	1	1	0	1	0		0	0	0	0	
19:00	0	3	0	1	0		0	0	0	0	
19:15	0	2	0	1	0		0	0	0	0	
19:30	0	1	1	0	0		0	0	0	0	
19:45	0	0	0	0	0		0	0	0	0	
20:00	0	0	0	0	0		0	0	0	0	
20:15	0	0	0	0	0		0	0	0	2	
20:30	0	2	0	0	0		0	0	0	0	
20:45	0	1	0	0	0		0	0	0	0	
21:00	0	0	0	0	0		0	0	0	0	

Curtis Traffic Surveys

Head Count

Job: 210302mcl (21_0047)

Client: McLaren Traffic Engineering

Day, date 26/03/21

Location: Greenwood Tavern Coffs Harbour

Weather: Fine

Surveyor MC

	Rainforest Room Open Area		Rainforest Room		Deck		Mahagony Room		Gaming Areas	Harbour Bar	Bar open area
Time	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Adults	Adults
16:00	1	0	6	0	3	0	0	0	10	10	2
16:30	0	0	10	0	5	1	3	0	9	4	5
17:00	0	0	14	0	21	0	26	0	12	11	3
17:30	3	0	17	0	23	2	31	0	10	17	2
18:00	0	0	24	1	29	5	32	0	13	13	2
18:30	0	0	25	1	34	5	35	0	7	17	1
19:00	1	0	11	1	35	4	25	0	15	18	1
19:30	1	0	9	0	35	3	26	0	17	17	3
20:00	0	0	4	0	28	4	28	0	17	13	3
20:30	0	0	2	0	15	0	17	0	12	7	2
21:00	0	0	4	0	14	0	12	0	7	5	4

Curtis Traffic Surveys

Vehicle Occupancy & Arrival Mode

Job: 210302mcl (21_0047) *Tavern Mini Bus not in use*

Client: McLaren Traffic Engineering

Day, date 26/03/21

Location: Greenwood Tavern Coffs Harbour

Weather: Fine

Surveyor MC

Time Start	**Arriving vehicle occupancy**										
16:00	1	2	3	4	5	6+ specify	Taxi	Uber	Walked off		(specify)
16:15	1	1	0	0	0		0	0	0	0	
16:30	4	2	2	0	0		0	0	0	1	
16:45	4	2	1	0	0		0	0	0	5	
17:00	3	1	0	0	0			0	0	6	
17:15	2	1	1	0	0			0	0		1 bicycle
17:30	1	2	1	1	0		1	0	0	2	
17:45	3	4	2	0	0		0	0	0	3	
18:00	2	2	2	0	0		0	0	0	0	1 bicycle
18:15	2	2	0	0	0		0	0	0	0	
18:30	4	7	3	1	0		0	0	0	0	
18:45	3	6	0	0	0		1	0	0	0	
19:00	1	2	1	1	0		2	0	0	1	
19:15	1	2	1	0	0		0	0	0	0	1 bicycle
19:30	1	3	0	0	0		0	0	0	1	
19:45	2	2	0	1	0		0	0	0	0	
20:00	1	4	0	0	0		0	0	0	0	
20:15	1	1	0	0	0		0	0	0	0	
20:30	1	1	0	0	0		0	0	0	0	
20:45	1	0	0	0	0		0	0	0	0	
21:00	0	0	0	0	0		0	0	0	0	

Curtis Traffic Surveys

Head Count

Job: 210302mcl (21_0047)

Client: McLaren Traffic Engineering

Day, date 12/03/21

Location: Greenwood Tavern Coffs Harbour

Weather: Fine

Surveyor MC

	Rainforest Room Open Area		Rainforest Room		Deck		Mahagony Room		Gaming Areas	Harbour Bar	Bar open area
Time	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Adults	Adults
16:00	0	0	10	0	7	0	0	0	9	14	1
16:30	0	0	12	0	8	0	0	0	10	16	0
17:00	0	0	17	0	5	0	0	0	13	17	2
17:30	3	0	16	0	10	2	13	0	17	16	1
18:00	0	0	21	1	20	4	23	3	12	16	1
18:30	0	0	20	3	27	8	22	0	14	19	3
19:00	0	0	30	3	39	13	22	3	11	14	5
19:30	0	0	27	5	43	15	28	1	5	3	5
20:00	0	0	10	0	36	12	23	3	14	16	4
20:30	1	0	11	3	18	9	15	1	11	14	0
21:00	0	0	10	0	13	10	15	1	10	14	3

Curtis Traffic Surveys

Vehicle Occupancy & Arrival Mode

Job: 210302mcl (21_0047) *Tavern Mini Bus not in use*

Client: McLaren Traffic Engineering

Day, date 12/03/21

Location: Greenwood Tavern Coffs Harbour

Weather: Fine

Surveyor MC

Time Start	**Arriving vehicle occupancy**										
16:00	1	2	3	4	5	6+ specify	Taxi	Uber	Walk	Dropped off	Other (specify)
16:15	1	0	0	0	0		0	0	0	1	
16:30	0	1	0	0	0		2	0	0		
16:45	1	0	0	0	0		0	0	0	1	1 bicycle
17:00	0	1	2	0	0		0	0	0	1	
17:15	2	1	2	0	0		0	0	3	1	
17:30	2	4	2	1	0		0	0	0	1	
17:45	3	2	0	1	0		0	0	0	0	1 hire car
18:00	2	5	2	4	0		0	0	0	2	
18:15	4	4	0	2	0		0	0	0	1	
18:30	1	4	1	0	1		0	0	0	0	
18:45	2	3	2	3	3		3	1	0	0	
19:00	4	2	3	1	0		6	0	0	0	
19:15	0	1	1	2	0		1	0	0	0	
19:30	0	1	0	0	1		0	0	0	2	
19:45	0	0	0	0	0		0	0	0	0	
20:00	0	1	0	2	0		0	0	0	2	
20:15	1	0	0	0	0		0	0	0	0	
20:30	0	0	0	0	0		0	0	0	0	
20:45	0	1	0	0	0		0	0	0	0	
21:00	0	0	0	0	0		0	0	0	0	

ANNEXURE C: TUBE COUNT SURVEY RESULTS

(8 SHEETS)

TRANS TRAFFIC SURVEY
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Site Bray St

Direction Northbound

Back to Site Summary Page

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	15/03/2021	16/03/2021	17/03/2021	18/03/2021	19/03/2021	20/03/2021	21/03/2021	Total	Average	Total	Average	Total	Average
AM Peak	00:00	00:00	06:00	06:00	10:00	05:00	09:00	N/A	06:00	N/A	06:00	N/A	05:00
PM Peak	18:00	18:00	12:00	15:00	18:00	14:00	19:00	N/A	14:00	N/A	16:00	N/A	14:00
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	1	0	1	0	0	0	1	1
06:00	0	0	2	2	0	0	0	4	1	4	1	0	0
07:00	0	0	0	0	0	1	0	1	0	0	0	1	1
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	1	1	0	0	1	3	0	2	0	1	1
10:00	0	0	2	0	2	1	0	5	1	4	1	1	1
11:00	0	0	2	0	0	0	0	2	0	2	0	0	0
12:00	0	0	2	0	0	1	0	3	0	2	0	1	1
13:00	0	1	0	0	1	0	1	3	0	2	0	1	1
14:00	0	0	0	0	1	2	1	4	1	1	0	3	2
15:00	0	0	0	1	0	1	2	4	1	1	0	3	2
16:00	1	1	1	0	0	0	0	3	0	3	1	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	2	2	0	0	2	1	2	9	1	6	1	3	2
19:00	0	2	0	0	0	0	3	5	1	2	0	3	2
20:00	0	2	0	0	0	2	0	4	1	2	0	2	1
21:00	0	0	1	0	0	0	0	1	0	1	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	8	11	4	6	10	10	52	7	32	4	20	15
% Heavy	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%		0.00%	

TRANS TRAFFIC SURVEY
trafficsurvey.com.au

Site Bray St

Direction Southbound

Back to Site Summary Page

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	22/03/2021	23/03/2021	24/03/2021	25/03/2021	26/03/2021	27/03/2021	28/03/2021	Total	Average	Total	Average	Total	Average
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	N/A	11:00	N/A	11:00	N/A	11:00
PM Peak	14:00	14:00	20:00	19:00	18:00	21:00	15:00	N/A	17:00	N/A	17:00	N/A	15:00
00:00	0	4	2	9	4	14	4	37	5	19	4	18	9
01:00	0	0	0	1	0	0	2	3	0	1	0	2	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	2	0	1	0	2	0	5	1	3	1	2	1
06:00	2	1	1	0	6	2	0	12	2	10	2	2	1
07:00	3	3	2	4	11	1	2	26	4	23	5	3	2
08:00	11	5	6	8	7	4	7	48	7	37	7	11	6
09:00	7	6	7	7	5	14	6	52	7	32	6	20	10
10:00	6	12	14	24	24	37	11	128	18	80	16	48	24
11:00	16	19	40	38	25	61	23	222	32	138	28	84	42
12:00	25	37	43	31	36	70	29	271	39	172	34	99	50
13:00	29	37	37	35	38	59	99	334	48	176	35	158	79
14:00	62	101	49	44	58	82	50	446	64	314	63	132	66
15:00	36	44	41	72	58	67	111	429	61	251	50	178	89
16:00	47	62	60	70	65	87	31	422	60	304	61	118	59
17:00	45	48	74	69	89	64	102	491	70	325	65	166	83
18:00	36	42	61	60	106	102	48	455	65	305	61	150	75
19:00	32	34	48	92	97	49	29	381	54	303	61	78	39
20:00	17	35	111	72	62	67	84	448	64	297	59	151	76
21:00	2	5	20	71	106	145	15	364	52	204	41	160	80
22:00	3	3	4	13	10	15	8	56	8	33	7	23	12
23:00	2	4	5	4	8	18	2	43	6	23	5	20	10
Total	**381**	**504**	**625**	**725**	**815**	**960**	**663**	**4673**	**667**	**3050**	**611**	**1623**	**814**
% Heavy	**3.67%**	**3.97%**	**2.72%**	**4.14%**	**2.58%**	**3.44%**	**2.41%**	**3.23%**		**3.34%**		**3.02%**	

TRANS TRAFFIC SURVEY
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Site Bray St

Direction Southbound

Back to Site Summary Page

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	15/03/2021	16/03/2021	17/03/2021	18/03/2021	19/03/2021	20/03/2021	21/03/2021	Total	Average	Total	Average	Total	Average
AM Peak	11:00	11:00	11:00	10:00	11:00	11:00	11:00	N/A	11:00	N/A	10:00	N/A	11:00
PM Peak	17:00	14:00	17:00	20:00	17:00	14:00	13:00	N/A	17:00	N/A	17:00	N/A	15:00
00:00	0	0	2	2	3	4	3	14	2	7	1	7	4
01:00	0	0	0	0	1	0	0	1	0	1	0	0	0
02:00	0	0	0	0	1	0	0	1	0	1	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	3	0	1	2	1	0	7	1	6	1	1	1
06:00	2	0	2	3	2	4	0	13	2	9	2	4	2
07:00	2	3	2	3	6	3	4	23	3	16	3	7	4
08:00	5	2	2	7	1	3	0	20	3	17	3	3	2
09:00	7	11	12	21	11	8	8	78	11	62	12	16	8
10:00	7	13	20	45	16	22	20	143	20	101	20	42	21
11:00	22	20	32	11	17	33	33	168	24	102	20	66	33
12:00	34	36	58	21	27	65	50	291	42	176	35	115	58
13:00	27	26	23	43	51	53	91	314	45	170	34	144	72
14:00	48	61	46	24	50	75	55	359	51	229	46	130	65
15:00	35	47	35	30	49	73	89	358	51	196	39	162	81
16:00	53	51	69	47	54	44	21	339	48	274	55	65	33
17:00	61	54	78	30	55	41	51	370	53	278	56	92	46
18:00	32	47	57	27	43	51	23	280	40	206	41	74	37
19:00	35	39	67	14	35	36	16	242	35	190	38	52	26
20:00	22	27	42	50	40	56	19	256	37	181	36	75	38
21:00	8	10	8	19	45	43	11	144	21	90	18	54	27
22:00	1	6	4	6	7	11	1	36	5	24	5	12	6
23:00	1	2	8	3	2	9	1	26	4	16	3	10	5
Total	**402**	**458**	**567**	**407**	**518**	**635**	**496**	**3483**	**498**	**2352**	**468**	**1131**	**569**
% Heavy	**4.23%**	**5.46%**	**2.65%**	**5.41%**	**6.18%**	**2.20%**	**1.81%**	**3.85%**		**4.72%**		**2.03%**	

TRANS TRAFFIC SURVEY
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Site Bray St

Direction Northbound

Back to Site Summary Page

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	22/03/2021	23/03/2021	24/03/2021	25/03/2021	26/03/2021	27/03/2021	28/03/2021	Total	Average	Total	Average	Total	Average
AM Peak	11:00	11:00	10:00	10:00	10:00	11:00	11:00	N/A	11:00	N/A	11:00	N/A	11:00
PM Peak	14:00	12:00	18:00	18:00	18:00	18:00	15:00	N/A	18:00	N/A	18:00	N/A	18:00
00:00	0	0	0	1	1	5	3	10	1	2	0	8	4
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	1	0	0	1	0	1	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	1	1	0	0	0	3	0	3	1	0	0
05:00	0	1	0	3	0	2	0	6	1	4	1	2	1
06:00	4	3	4	2	13	3	3	32	5	26	5	6	3
07:00	8	7	9	9	10	5	2	50	7	43	9	7	4
08:00	15	10	15	17	15	27	5	104	15	72	14	32	16
09:00	29	30	40	31	37	69	17	253	36	167	33	86	43
10:00	22	31	43	57	45	58	51	307	44	198	40	109	55
11:00	41	73	36	39	41	77	84	391	56	230	46	161	81
12:00	53	84	68	54	78	131	93	561	80	337	67	224	112
13:00	48	42	48	52	59	65	92	406	58	249	50	157	79
14:00	66	63	55	57	68	113	80	502	72	309	62	193	97
15:00	61	69	98	104	92	82	125	631	90	424	85	207	104
16:00	60	83	86	114	148	117	57	665	95	491	98	174	87
17:00	63	77	100	131	149	102	82	704	101	520	104	184	92
18:00	47	37	160	167	187	194	66	858	123	598	120	260	130
19:00	14	24	41	54	63	56	21	273	39	196	39	77	39
20:00	6	19	12	19	41	40	27	164	23	97	19	67	34
21:00	4	7	4	8	31	58	9	121	17	54	11	67	34
22:00	5	1	4	8	9	10	3	40	6	27	5	13	7
23:00	1	1	8	3	3	4	1	21	3	16	3	5	3
Total	547	663	832	931	1091	1218	821	6103	872	4064	812	2039	1025
% Heavy	4.94%	4.37%	2.76%	3.44%	2.66%	2.22%	1.46%	2.93%		3.44%		1.91%	

TRANS TRAFFIC SURVEY
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Site Bray St

Direction Northbound

Back to Site Summary Page

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	15/03/2021	16/03/2021	17/03/2021	18/03/2021	19/03/2021	20/03/2021	21/03/2021	Total	Average	Total	Average	Total	Average
AM Peak	00:00	00:00	06:00	06:00	10:00	05:00	09:00	N/A	06:00	N/A	06:00	N/A	05:00
PM Peak	18:00	18:00	12:00	15:00	18:00	14:00	19:00	N/A	14:00	N/A	16:00	N/A	14:00
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	1	0	1	0	0	0	1	1
06:00	0	0	2	2	0	0	0	4	1	4	1	0	0
07:00	0	0	0	0	0	1	0	1	0	0	0	1	1
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	1	1	0	0	1	3	0	2	0	1	1
10:00	0	0	2	0	2	1	0	5	1	4	1	1	1
11:00	0	0	2	0	0	0	0	2	0	2	0	0	0
12:00	0	0	2	0	0	1	0	3	0	2	0	1	1
13:00	0	1	0	0	1	0	1	3	0	2	0	1	1
14:00	0	0	0	0	1	2	1	4	1	1	0	3	2
15:00	0	0	0	1	0	1	2	4	1	1	0	3	2
16:00	1	1	1	0	0	0	0	3	0	3	1	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	2	2	0	0	2	1	2	9	1	6	1	3	2
19:00	0	2	0	0	0	0	3	5	1	2	0	3	2
20:00	0	2	0	0	0	2	0	4	1	2	0	2	1
21:00	0	0	1	0	0	0	0	1	0	1	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	8	11	4	6	10	10	52	7	32	4	20	15
% Heavy	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%		0.00%	

TRANS TRAFFIC SURVEY
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Site Bray St

Direction Southbound

Back to Site Summary Page

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	15/03/2021	16/03/2021	17/03/2021	18/03/2021	19/03/2021	20/03/2021	21/03/2021	Total	Average	Total	Average	Total	Average
AM Peak	11:00	10:00	09:00	11:00	10:00	10:00	11:00	N/A	10:00	N/A	10:00	N/A	10:00
PM Peak	17:00	16:00	17:00	17:00	16:00	14:00	16:00	N/A	16:00	N/A	17:00	N/A	16:00
00:00	0	1	1	1	0	0	0	3	0	3	1	0	0
01:00	0	0	0	0	1	0	0	1	0	1	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	1	0	1	0	0	0
05:00	0	1	0	0	0	1	0	2	0	1	0	1	1
06:00	0	1	0	4	1	1	1	8	1	6	1	2	1
07:00	0	0	1	0	1	1	0	3	0	2	0	1	1
08:00	1	0	1	1	1	1	1	6	1	4	1	2	1
09:00	5	6	8	3	6	5	1	34	5	28	6	6	3
10:00	7	8	6	2	14	7	8	52	7	37	7	15	8
11:00	10	2	5	8	10	6	9	50	7	35	7	15	8
12:00	9	8	12	8	25	26	14	102	15	62	12	40	20
13:00	11	3	9	12	24	23	16	98	14	59	12	39	20
14:00	17	13	17	9	25	30	18	129	18	81	16	48	24
15:00	21	18	22	18	33	25	22	159	23	112	22	47	24
16:00	22	26	24	30	44	28	25	199	28	146	29	53	27
17:00	27	24	30	33	35	21	17	187	27	149	30	38	19
18:00	12	19	13	17	22	19	11	113	16	83	17	30	15
19:00	5	12	8	14	13	12	9	73	10	52	10	21	11
20:00	1	4	6	10	18	11	4	54	8	39	8	15	8
21:00	1	1	2	2	4	4	2	16	2	10	2	6	3
22:00	0	0	0	0	1	0	0	1	0	1	0	0	0
23:00	1	0	1	1	0	1	0	4	1	3	1	1	1
Total	150	148	166	173	278	222	158	1295	183	915	182	380	195
% Heavy	5.33%	4.73%	4.22%	8.09%	5.04%	4.95%	1.27%	4.86%		5.46%		3.42%	

TRANS TRAFFIC SURVEY
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Site Bray St

Direction Southbound

Back to Site Summary Page

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	15/03/2021	16/03/2021	17/03/2021	18/03/2021	19/03/2021	20/03/2021	21/03/2021	Total	Average	Total	Average	Total	Average
AM Peak	11:00	10:00	09:00	11:00	10:00	10:00	11:00	N/A	10:00	N/A	10:00	N/A	10:00
PM Peak	17:00	16:00	17:00	17:00	16:00	14:00	16:00	N/A	16:00	N/A	17:00	N/A	16:00
00:00	0	1	1	1	0	0	0	3	0	3	1	0	0
01:00	0	0	0	0	1	0	0	1	0	1	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	1	0	1	0	0	0
05:00	0	1	0	0	0	1	0	2	0	1	0	1	1
06:00	0	1	0	4	1	1	1	8	1	6	1	2	1
07:00	0	0	1	0	1	1	0	3	0	2	0	1	1
08:00	1	0	1	1	1	1	1	6	1	4	1	2	1
09:00	5	6	8	3	6	5	1	34	5	28	6	6	3
10:00	7	8	6	2	14	7	8	52	7	37	7	15	8
11:00	10	2	5	8	10	6	9	50	7	35	7	15	8
12:00	9	8	12	8	25	26	14	102	15	62	12	40	20
13:00	11	3	9	12	24	23	16	98	14	59	12	39	20
14:00	17	13	17	9	25	30	18	129	18	81	16	48	24
15:00	21	18	22	18	33	25	22	159	23	112	22	47	24
16:00	22	26	24	30	44	28	25	199	28	146	29	53	27
17:00	27	24	30	33	35	21	17	187	27	149	30	38	19
18:00	12	19	13	17	22	19	11	113	16	83	17	30	15
19:00	5	12	8	14	13	12	9	73	10	52	10	21	11
20:00	1	4	6	10	18	11	4	54	8	39	8	15	8
21:00	1	1	2	2	4	4	2	16	2	10	2	6	3
22:00	0	0	0	0	1	0	0	1	0	1	0	0	0
23:00	1	0	1	1	0	1	0	4	1	3	1	1	1
Total	150	148	166	173	278	222	158	1295	183	915	182	380	195
% Heavy	5.33%	4.73%	4.22%	8.09%	5.04%	4.95%	1.27%	4.86%		5.46%		3.42%	

TRANS TRAFFIC SURVEY
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Site Bray St

Direction Northbound

Back to Site Summary Page

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	7 days		Weekday		Weekend	
Date	15/03/2021	16/03/2021	17/03/2021	18/03/2021	19/03/2021	20/03/2021	21/03/2021	Total	Average	Total	Average	Total	Average
AM Peak	11:00	09:00	10:00	10:00	11:00	11:00	10:00	N/A	10:00	N/A	10:00	N/A	10:00
PM Peak	17:00	17:00	17:00	16:00	16:00	12:00	13:00	N/A	17:00	N/A	17:00	N/A	12:00
00:00	0	0	1	1	2	1	0	5	1	4	1	1	1
01:00	0	0	0	0	2	0	0	2	0	2	0	0	0
02:00	0	0	0	0	1	0	0	1	0	1	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	2	0	2	0	0	0
05:00	0	1	1	2	2	2	1	9	1	6	1	3	2
06:00	3	3	4	7	7	4	1	29	4	24	5	5	3
07:00	5	3	3	8	7	5	3	34	5	26	5	8	4
08:00	11	6	10	6	10	12	1	56	8	43	9	13	7
09:00	18	36	53	33	30	47	14	231	33	170	34	61	31
10:00	28	29	54	45	41	62	100	359	51	197	39	162	81
11:00	39	34	32	42	43	83	72	345	49	190	38	155	78
12:00	54	62	59	54	81	115	80	505	72	310	62	195	98
13:00	28	37	34	47	62	66	110	384	55	208	42	176	88
14:00	66	60	60	32	62	85	56	421	60	280	56	141	71
15:00	68	75	83	51	88	54	80	499	71	365	73	134	67
16:00	70	74	84	69	90	66	35	488	70	387	77	101	51
17:00	73	78	110	62	89	75	24	511	73	412	82	99	50
18:00	38	59	70	68	81	88	25	429	61	316	63	113	57
19:00	11	19	37	28	43	36	25	199	28	138	28	61	31
20:00	9	7	19	9	32	24	9	109	16	76	15	33	17
21:00	5	8	8	7	15	13	7	63	9	43	9	20	10
22:00	0	5	4	3	4	8	1	25	4	16	3	9	5
23:00	1	1	2	3	3	5	0	15	2	10	2	5	3
Total	527	599	728	577	795	851	644	4721	673	3226	644	1495	755
% Heavy	4.55%	3.34%	2.06%	5.72%	4.78%	2.59%	2.33%	3.54%		4.03%		2.47%	

ANNEXURE D: INTERSECTION SURVEY RESULTS

(8 SHEETS)

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

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Intersection of Orlando Street and Pacific Hwy, Coffs Harbour

GPS -30.283659, 153.126694

Date:	Fri 19/03/21
Weather:	Overcast
Suburban:	Coffs Harbour
Customer:	McLaren

North:	Pacific Hwy
East:	Orlando Street
South:	Pacific Hwy
West:	Bray Street

Survey Period	AM:	N/A
	PM:	12:00 PM-7:00 PM
Traffic Peak	AM:	N/A
	PM:	2:30 PM-2:30 PM

All Vehicles

Time		North Approach Pacific Hwy				East Approach Orlando Street				South Approach Pacific Hwy				West Approach Bray Street				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
14:00	14:15	0	88	275	58	0	38	35	42	0	40	276	17	0	21	26	72	3848	
14:15	14:30	0	67	234	38	0	57	33	26	0	19	223	9	0	22	42	80	3822	
14:30	14:45	0	74	268	54	0	40	23	15	0	23	296	17	0	25	36	81	4023	Peak
14:45	15:00	0	72	250	29	0	64	39	36	0	37	348	24	0	27	33	99	4002	
15:00	15:15	0	72	223	44	0	59	41	33	0	25	298	25	0	17	33	92	3945	
15:15	15:30	0	84	239	61	0	74	38	36	0	22	348	29	0	20	26	74	3963	
15:30	15:45	0	87	191	30	0	75	48	36	0	22	288	17	0	18	31	88	3843	
15:45	16:00	0	80	223	37	0	77	49	38	0	19	322	21	0	14	33	88	3846	
16:00	16:15	0	94	209	41	0	49	35	25	0	20	338	26	0	31	27	85	3714	
16:15	16:30	0	79	225	32	0	58	50	28	0	14	298	19	0	18	33	77	3591	
16:30	16:45	0	83	242	22	0	46	24	22	0	20	335	12	0	24	25	79	3556	
16:45	17:00	0	83	182	26	0	59	43	23	0	24	268	33	0	21	29	78	3419	
17:00	17:15	0	92	185	34	0	38	34	24	0	11	292	18	0	12	28	89	3290	
17:15	17:30	0	82	183	44	0	56	32	23	0	17	335	26	0	12	24	62	3111	
17:30	17:45	0	92	198	32	0	38	37	13	0	13	247	18	0	17	17	75	2830	
17:45	18:00	0	96	217	26	0	26	21	16	0	11	194	13	0	18	26	76	2556	
18:00	18:15	0	83	164	35	0	38	28	12	0	12	172	26	0	24	20	64	2226	
18:15	18:30	0	77	147	17	0	32	15	11	0	20	169	26	0	19	25	57		
18:30	18:45	0	62	129	23	0	24	16	26	0	7	125	21	0	21	21	48		
18:45	19:00	0	52	109	14	0	29	18	4	0	6	91	24	0	9	14	40		

Peak Time		North Approach Pacific Hwy				East Approach Orlando Street				South Approach Pacific Hwy				West Approach Bray Street				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
14:30	15:30	0	302	980	188	0	237	141	120	0	107	1290	95	0	89	128	346	4023

Pedestrians Crossing

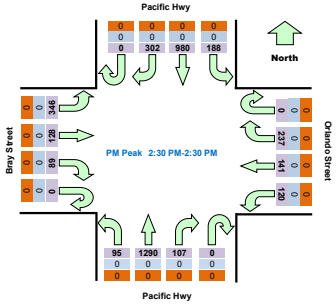
Time		North Approach Pacific Hwy		East Approach Orlando Street		South Approach Pacific Hwy		West Approach Bray Street		Hourly Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	
14:00	14:15	0	0	1	0	0	0	0	0	19
14:15	14:30	0	1	0	2	1	1	2	0	22
14:30	14:45	0	1	1	3	0	0	0	0	20
14:45	15:00	3	2	1	0	0	0	0	0	56
15:00	15:15	2	2	0	0	0	0	0	0	67
15:15	15:30	0	0	2	2	0	1	0	0	75
15:30	15:45	1	2	1	24	0	12	1	0	82
15:45	16:00	0	1	1	8	0	5	2	0	45
16:00	16:15	2	8	1	0	1	0	0	0	33
16:15	16:30	3	1	1	2	2	3	0	0	22
16:30	16:45	0	0	3	1	0	0	0	0	13
16:45	17:00	2	0	0	3	0	0	0	0	19
17:00	17:15	1	0	0	0	0	0	0	0	17
17:15	17:30	1	0	1	0	1	0	0	0	20
17:30	17:45	4	4	2	0	0	0	0	0	19
17:45	18:00	0	0	3	0	0	0	0	0	13
18:00	18:15	0	0	3	0	0	0	0	1	16
18:15	18:30	0	0	0	0	2	0	0	0	
18:30	18:45	1	1	1	0	0	0	0	1	
18:45	19:00	0	5	1	0	0	0	0	0	

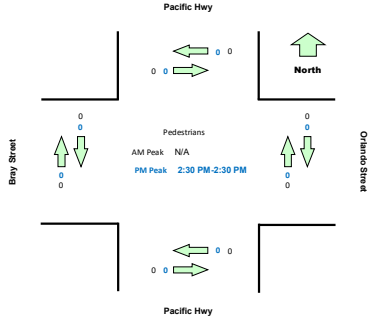
Peak Time		North Approach Pacific Hwy		East Approach Orlando Street		South Approach Pacific Hwy		West Approach Bray Street		Peak hour total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	
14:30	15:30	0	0	0	0	0	0	0	0	0

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy





TRANS TRAFFIC SURVEY

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TURNING MOVEMENT SURVEY

Intersection of Pacific Hwy and Park Beach Rd, Coffs Har

GPS *-30.282489, 153.128484*

Date:	Fri 19/03/21
Weather:	Overcast
Suburban:	Coffs Harbour
Customer:	McLaren

North:	Pacific Hwy
East:	Park Beach Rd
South:	Pacific Hwy
West:	N/A

Survey Period	AM:	N/A
	PM:	12:00 PM-7:00 PM
Traffic Peak	AM:	N/A
	PM:	2:45 PM-3:45 PM

All Vehicles

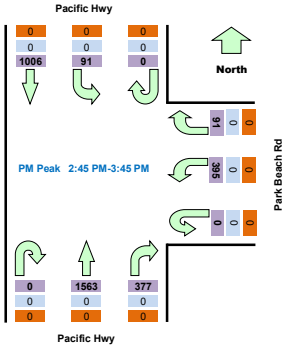
Time		North Approach Pacific Hwy			East Approach Park Beach R			South Approach Pacific Hwy			Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Hour	Peak
14:00	14:15	0	304	24	0	20	98	0	83	307	3346	
14:15	14:30	0	260	17	0	11	104	0	77	277	3354	
14:30	14:45	0	298	29	0	15	102	0	90	307	3494	
14:45	15:00	0	238	19	0	22	115	0	100	429	3523	Peak
15:00	15:15	0	255	27	0	23	94	0	99	346	3439	
15:15	15:30	0	257	23	0	30	92	0	91	393	3496	
15:30	15:45	0	256	22	0	16	94	0	87	395	3413	
15:45	16:00	0	226	31	0	24	102	0	86	370	3379	
16:00	16:15	0	274	17	0	26	90	0	78	416	3357	
16:15	16:30	0	210	26	0	24	124	0	98	321	3191	
16:30	16:45	0	247	22	0	26	91	0	86	364	3179	
16:45	17:00	0	252	26	0	23	81	0	92	343	3116	
17:00	17:15	0	203	21	0	15	86	0	73	337	2996	
17:15	17:30	0	188	26	0	28	107	0	80	362	2834	
17:30	17:45	0	249	22	0	16	99	0	73	314	2639	
17:45	18:00	0	231	26	0	20	104	0	61	255	2338	
18:00	18:15	0	190	19	0	21	78	0	51	214	2030	
18:15	18:30	0	178	20	0	15	96	0	54	233		
18:30	18:45	0	139	24	0	18	74	0	53	164		
18:45	19:00	0	131	11	0	10	61	0	44	132		

Peak Time		North Approach Pacific Hwy			East Approach Park Beach R			South Approach Pacific Hwy			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
14:45	15:45	0	1006	91	0	91	395	0	377	1563	3523

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

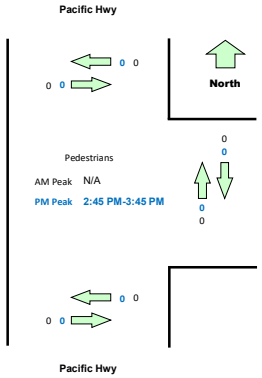
Total
Light
Heavy



Pedestrians Crossing

Time		North Approach Pacific Hwy		East Approach Park Beach Rd		South Approach Pacific Hwy		Hourly Total
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	
14:00	14:15	1	0	0	2	0	0	10
14:15	14:30	0	0	0	0	0	0	11
14:30	14:45	0	0	3	0	0	0	14
14:45	15:00	0	0	2	2	0	0	14
15:00	15:15	0	0	2	1	0	1	16
15:15	15:30	0	0	1	2	0	0	17
15:30	15:45	0	0	2	1	0	0	15
15:45	16:00	1	0	3	2	0	0	19
16:00	16:15	0	0	5	0	0	0	14
16:15	16:30	0	0	1	0	0	0	11
16:30	16:45	1	0	2	3	1	0	11
16:45	17:00	0	0	1	0	0	0	6
17:00	17:15	0	0	2	0	0	0	8
17:15	17:30	0	0	0	1	0	0	9
17:30	17:45	0	0	0	2	0	0	10
17:45	18:00	0	0	1	1	1	0	9
18:00	18:15	0	0	1	1	0	1	13
18:15	18:30	0	0	0	2	0	0	
18:30	18:45	0	0	0	1	0	0	
18:45	19:00	0	0	6	1	0	0	

Peak Time		North Approach Pacific Hwy		East Approach Park Beach Rd		South Approach Pacific Hwy		Peak total
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	
14:45	15:45	0	0	0	0	0	0	0



TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Bray Street and Hungry Jack's Asess, Cof

GPS	*-30.283536, 153.125806*

Date:	Fri 19/03/21
Weather:	Overcast
Suburban:	Coffs Harbour
Customer:	McLaren

North:	Hungry Jack's Asess
East:	Bray Street
South:	N/A
West:	Bray Street

Survey Period	AM:	N/A
	PM:	12:00 PM-7:00 PM
Traffic Peak	AM:	N/A
	PM:	3:30 PM-4:30 PM

All Vehicles

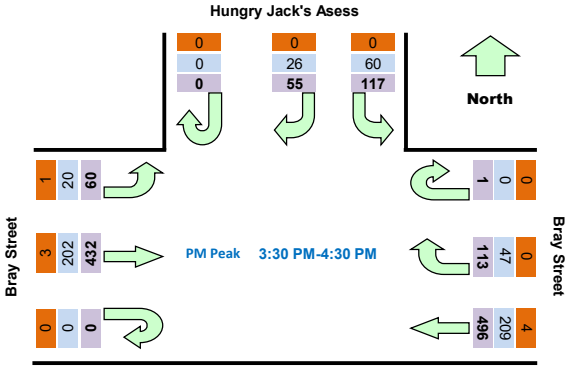
Time		h Approach Hungry Jack's A			East Approach Bray Street			West Approach Bray Street			Hourly Total	
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	Hour	Peak
14:00	14:15	0	11	31	0	29	105	0	101	12	1165	
14:15	14:30	0	15	29	0	18	108	0	104	9	1161	
14:30	14:45	0	11	22	0	17	92	0	128	13	1169	
14:45	15:00	0	12	19	0	37	98	0	134	10	1207	
15:00	15:15	0	14	33	0	18	111	0	104	5	1220	
15:15	15:30	0	12	28	1	32	112	0	93	13	1257	
15:30	15:45	0	12	33	0	27	126	0	110	13	1274	Peak
15:45	16:00	0	15	26	1	25	122	0	114	20	1222	
16:00	16:15	0	16	27	0	33	122	0	111	13	1206	
16:15	16:30	0	12	31	0	28	126	0	97	14	1178	
16:30	16:45	0	14	25	0	17	98	0	103	12	1156	
16:45	17:00	0	13	27	0	40	112	0	100	15	1166	
17:00	17:15	0	13	21	0	22	130	0	103	5	1138	
17:15	17:30	0	17	21	0	22	125	0	84	17	1125	
17:30	17:45	0	13	17	0	22	123	0	95	9	1091	
17:45	18:00	0	11	16	0	29	105	0	104	14	1011	
18:00	18:15	0	13	36	0	25	104	0	83	20	915	
18:15	18:30	0	12	25	0	35	93	0	73	14		
18:30	18:45	0	7	20	0	24	77	0	67	4		
18:45	19:00	0	9	14	0	25	72	0	55	8		

Peak Time		h Approach Hungry Jack's A			East Approach Bray Street			West Approach Bray Street			Peak
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	total
15:30	16:30	0	55	117	1	113	496	0	432	60	1274

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

GPS	*-30.294418, 153.115299*
Date:	Fri 19/03/21
Weather:	Overcast
Suburban:	Coffs Harbour
Customer:	McLaren

All Vehicles

Time				ourly Tot
Period Start	Period End	Entry	Exit	
14:00	14:15	18	33	228
14:15	14:30	35	28	243
14:30	14:45	31	28	247
14:45	15:00	28	27	247
15:00	15:15	31	35	251
15:15	15:30	35	32	254
15:30	15:45	28	31	250
15:45	16:00	33	26	255
16:00	16:15	32	37	262
16:15	16:30	31	32	238
16:30	16:45	31	33	230
16:45	17:00	32	34	220
17:00	17:15	25	20	199
17:15	17:30	22	33	194
17:30	17:45	28	26	190
17:45	18:00	21	24	168
18:00	18:15	23	17	146
18:15	18:30	22	29	
18:30	18:45	16	16	
18:45	19:00	10	13	

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Orlando Street and Pacific Hwy, Coffs Harbour

GPS	*-30.283659, 153.126694*
Date:	Sat 20/03/21
Weather:	Overcast
Suburban:	Coffs Harbour
Customer:	McLaren

North:	Pacific Hwy
East:	Orlando Street
South:	Pacific Hwy
West:	Bray Street

Survey Period	AM:	10:00 AM-12:00 PM
	PM:	12:00 PM-7:00 PM
Traffic Peak	AM:	11:30 AM-11:30 AM
	PM:	12:00 PM-12:00 PM

All Vehicles

Time		North Approach Pacific Hwy				East Approach Orlando Street				South Approach Pacific Hwy				West Approach Bray Street				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
10:00	10:15	0	93	243	60	0	33	35	26	0	25	178	18	0	20	37	96	3783	
10:15	10:30	0	84	295	49	0	55	38	37	0	25	257	24	0	26	30	86	3900	
10:30	10:45	0	89	279	48	0	38	23	24	0	22	244	18	0	21	32	105	3935	
10:45	11:00	0	80	302	42	0	30	40	21	0	31	280	18	0	18	31	77	4029	
11:00	11:15	0	78	277	49	0	42	37	27	0	22	283	25	0	18	29	94	4169	
11:15	11:30	0	72	281	56	0	65	23	39	0	32	285	22	0	25	37	104	4193	
11:30	11:45	0	77	301	54	0	65	35	41	0	31	270	14	0	13	39	97	4278	Peak
11:45	12:00	0	100	331	68	0	43	28	33	1	20	303	29	0	22	29	103	4245	
12:00	12:15	0	94	273	39	0	60	30	28	0	32	264	23	0	30	26	106	4043	
12:15	12:30	0	113	293	54	0	68	41	36	0	17	309	26	0	27	29	113	3902	
12:30	12:45	0	118	278	47	0	55	23	29	0	14	286	36	0	18	21	79	3683	
12:45	13:00	0	88	293	31	0	41	14	20	0	20	243	20	0	19	23	96	3497	
13:00	13:15	0	97	244	42	0	54	20	16	0	26	224	22	0	18	24	77	3414	
13:15	13:30	1	66	284	41	0	29	20	14	0	12	272	12	0	20	36	100	3357	
13:30	13:45	0	99	222	26	0	45	25	17	0	19	228	20	0	14	26	77	3301	
13:45	14:00	1	72	210	32	0	33	25	23	0	16	280	10	0	9	35	79	3246	
14:00	14:15	0	94	228	38	0	35	16	13	0	12	218	24	0	18	21	90	3230	
14:15	14:30	0	88	244	34	0	33	28	19	0	22	249	16	0	16	31	71		
14:30	14:45	0	80	215	32	0	38	30	14	0	10	217	20	0	14	26	67		
14:45	15:00	0	93	238	25	0	27	27	19	0	18	230	20	0	13	32	67		

Peak Time		North Approach Pacific Hwy				East Approach Orlando Street				South Approach Pacific Hwy				West Approach Bray Street				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
11:30	12:30	0	384	1198	215	0	236	134	138	1	100	1146	92	0	92	123	419	4278
12:00	13:00	0	413	1137	171	0	224	108	113	0	83	1102	105	0	94	99	394	4043

Pedestrians Crossing

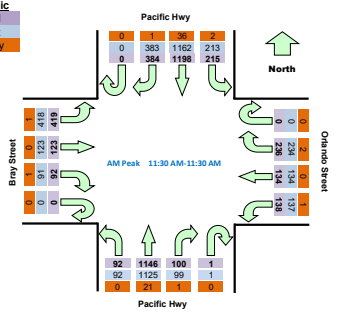
Time		North Approach Pacific Hwy		East Approach Orlando Street		South Approach Pacific Hwy		West Approach Bray Street		Hourly Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	
10:00	10:15	1	1	1	1	0	0	0	0	20
10:15	10:30	1	1	0	6	0	1	0	0	26
10:30	10:45	0	0	0	1	0	0	0	0	21
10:45	11:00	1	0	2	2	1	0	0	0	30
11:00	11:15	2	0	3	2	1	1	1	0	37
11:15	11:30	1	2	1	0	0	0	0	0	38
11:30	11:45	0	6	2	1	0	1	0	0	41
11:45	12:00	0	1	7	5	0	0	0	0	40
12:00	12:15	4	3	0	4	0	0	0	0	30
12:15	12:30	1	0	3	3	0	0	0	0	22
12:30	12:45	2	1	4	1	1	0	0	0	21
12:45	13:00	1	0	0	1	0	0	0	1	24
13:00	13:15	1	0	1	1	0	0	0	0	24
13:15	13:30	2	0	1	0	1	0	0	2	31
13:30	13:45	2	0	3	6	1	0	0	0	29
13:45	14:00	0	3	0	0	0	0	0	0	25
14:00	14:15	2	0	3	3	1	1	0	0	24
14:15	14:30	2	0	0	1	0	1	0	0	
14:30	14:45	3	3	0	1	0	0	1	0	
14:45	15:00	0	1	0	0	0	0	0	1	

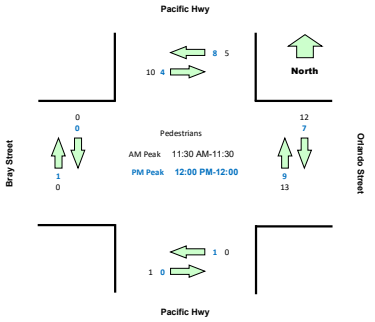
Peak Time		North Approach Pacific Hwy		East Approach Orlando Street		South Approach Pacific Hwy		West Approach Bray Street		Peak hour total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	
11:30	12:30	5	10	12	13	0	1	0	0	41
12:00	13:00	8	4	7	9	1	0	0	1	30

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy





TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Pacific Hwy and Park Beach Rd, Coffs Ha

GPS *-30.282489, 153.128484*

Date:	Sat 20/03/21
Weather:	Overcast
Suburban:	Coffs Harbour
Customer:	McLaren

North:	Pacific Hwy
East:	Park Beach Rd
South:	Pacific Hwy
West:	N/A

Survey Period	AM:	10:00 AM-12:00 PM
	PM:	12:00 PM-7:00 PM
Traffic Peak	AM:	11:30 AM-12:30 PM
	PM:	12:00 PM-1:00 PM

All Vehicles

Time		North Approach Pacific Hwy			East Approach Park Beach Rd			South Approach Pacific Hwy			Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Hour	Peak
10:00	10:15	0	308	30	0	23	102	0	77	255	3341	
10:15	10:30	0	295	44	0	18	118	0	117	269	3463	
10:30	10:45	0	292	40	0	13	110	0	125	284	3545	
10:45	11:00	0	292	24	0	23	114	0	108	260	3630	
11:00	11:15	0	305	47	0	13	114	0	114	324	3795	
11:15	11:30	0	307	52	0	24	103	0	147	310	3803	
11:30	11:45	0	331	41	0	25	124	0	122	306	3856	Peak
11:45	12:00	0	340	46	0	31	135	0	136	298	3819	
12:00	12:15	0	286	38	0	25	133	0	138	305	3701	
12:15	12:30	0	328	44	0	21	123	0	134	346	3617	
12:30	12:45	0	285	29	0	24	149	0	137	288	3469	
12:45	13:00	0	298	38	0	38	130	0	113	251	3322	
13:00	13:15	0	253	36	0	34	146	0	107	265	3231	
13:15	13:30	0	261	30	0	30	112	0	120	295	3126	
13:30	13:45	0	225	33	0	37	113	0	91	266	3032	
13:45	14:00	0	222	36	0	30	113	0	109	267	2953	
14:00	14:15	0	250	23	0	21	117	1	88	236	2893	
14:15	14:30	0	255	26	0	25	98	0	79	271		
14:30	14:45	0	237	28	0	12	106	0	91	212		
14:45	15:00	0	230	26	0	16	117	0	78	250		

Peak Time		North Approach Pacific Hwy			East Approach Park Beach Rd			South Approach Pacific Hwy			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
11:30	12:30	0	1285	169	0	102	515	0	530	1255	3856
12:00	13:00	0	1197	149	0	108	535	0	522	1190	3701

Pedestrians Crossing

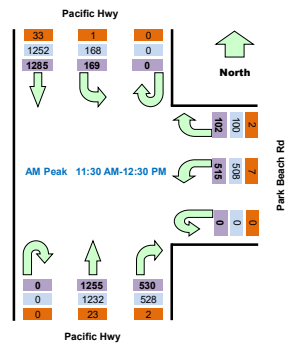
Time		North Approach Pacific Hwy		East Approach Park Beach Rd		South Approach Pacific Hwy		Hourly Total
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	
10:00	10:15	0	0	1	0	0	0	14
10:15	10:30	0	0	5	2	0	0	18
10:30	10:45	0	0	0	1	0	0	12
10:45	11:00	0	0	2	3	0	0	11
11:00	11:15	0	1	2	2	0	0	10
11:15	11:30	0	0	1	0	0	0	
11:30	11:45	0	0	0	0	0	0	
11:45	12:00	1	1	1	1	0	0	
12:00	12:15	0	0	5	3	0	0	18
12:15	12:30	0	0	1	2	0	0	15
12:30	12:45	3	0	2	2	0	0	12
12:45	13:00	0	0	0	0	0	0	8
13:00	13:15	0	0	1	4	0	0	13
13:15	13:30	0	0	0	0	0	0	23
13:30	13:45	0	0	1	2	0	0	26
13:45	14:00	0	0	2	3	0	0	26
14:00	14:15	2	0	8	5	0	0	22
14:15	14:30	0	0	3	0	0	0	
14:30	14:45	0	0	0	1	2	0	
14:45	15:00	1	0	0	0	0	0	

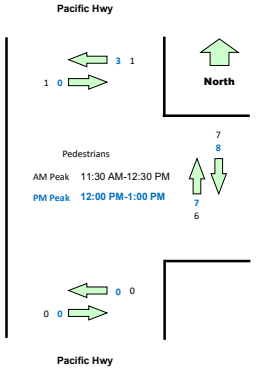
Peak Time		North Approach Pacific Hwy		East Approach Park Beach Rd		South Approach Pacific Hwy		Peak total
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	
11:30	12:30	1	1	7	6	0	0	15
12:00	13:00	3	0	8	7	0	0	18

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy





TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

Intersection of Bray Street and Hungry Jack's Asess, Cof

GPS	-30.283536, 153.125806

Date:	Sat 20/03/21
Weather:	Overcast
Suburban:	Coffs Harbour
Customer:	McLaren

North:	Hungry Jack's Asess
East:	Bray Street
South:	N/A
West:	Bray Street

Survey Period	AM:	10:00 AM-12:00 PM
	PM:	12:00 PM-7:00 PM
Traffic Peak	AM:	11:45 AM-12:45 PM
	PM:	12:00 PM-1:00 PM

All Vehicles

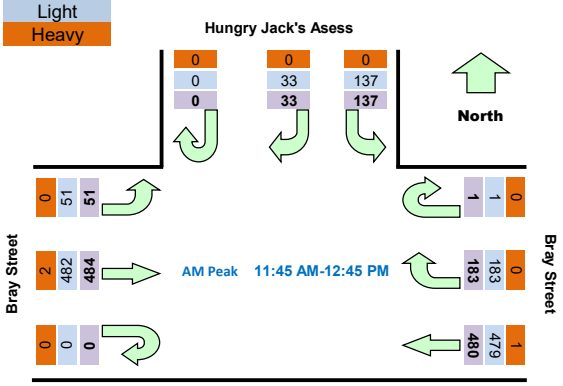
Time		h Approach Hungry Jack's A			East Approach Bray Street			West Approach Bray Street			Hourly Total	
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	Hour	Peak
10:00	10:15	0	7	17	0	37	103	0	132	5	1197	
10:15	10:30	0	7	21	1	33	117	0	123	6	1197	
10:30	10:45	0	4	23	0	16	114	0	130	13	1185	
10:45	11:00	0	5	22	0	25	118	0	109	9	1172	
11:00	11:15	0	8	19	1	29	117	0	114	13	1214	
11:15	11:30	0	9	26	0	29	88	0	136	8	1265	
11:30	11:45	0	7	20	0	21	100	0	129	10	1322	
11:45	12:00	0	7	32	1	37	111	0	130	12	1369	Peak
12:00	12:15	0	7	33	0	48	109	0	139	16	1337	
12:15	12:30	0	9	35	0	45	126	0	126	12	1258	
12:30	12:45	0	10	37	0	53	134	0	89	11	1189	
12:45	13:00	0	19	33	0	41	89	0	108	8	1136	
13:00	13:15	0	12	39	0	37	99	0	71	15	1094	
13:15	13:30	0	11	31	0	22	84	0	126	10	1110	
13:30	13:45	0	11	28	0	26	123	0	82	11	1105	
13:45	14:00	0	11	18	0	15	99	0	103	10	1097	
14:00	14:15	0	15	24	1	32	102	0	104	11	1142	
14:15	14:30	0	12	52	0	30	93	0	77	15		
14:30	14:45	0	21	24	0	33	106	0	80	9		
14:45	15:00	0	19	24	1	27	119	0	97	14		

Peak Time		h Approach Hungry Jack's A			East Approach Bray Street			West Approach Bray Street			Peak
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	total
11:45	12:45	0	33	137	1	183	480	0	484	51	1369
12:00	13:00	0	45	138	0	187	458	0	462	47	1337

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total
Light
Heavy



TRANS TRAFFIC SURVEY

trafficsurvey.com.au

TURNING MOVEMENT SURVEY

GPS	*-30.294418, 153.115299*
Date:	Sat 20/03/21
Weather:	Overcast
Suburban:	Coffs Harbour
Customer:	McLaren

All Vehicles

Time				Hourly
Period Start	Period End	Entry	Exit	Total
10:00	10:15	15	17	142
10:15	10:30	13	14	171
10:30	10:45	23	13	197
10:45	11:00	22	25	201
11:00	11:15	33	28	205
11:15	11:30	26	27	189
11:30	11:45	15	25	185
11:45	12:00	35	16	190
12:00	12:15	18	27	184
12:15	12:30	23	26	207
12:30	12:45	20	25	224
12:45	13:00	24	21	220
13:00	13:15	43	25	227
13:15	13:30	25	41	198
13:30	13:45	18	23	192
13:45	14:00	28	24	197
14:00	14:15	20	19	195
14:15	14:30	30	30	
14:30	14:45	23	23	
14:45	15:00	22	28	

ANNEXURE E: SIDRA RESULTS

(20 SHEETS)

MOVEMENT SUMMARY

Site: 101 [Bray Street / Site Driveway - EX FRI (Site Folder: Existing Peak Hour)]

Network: N101 [FRI Existing (Network Folder: Existing Conditions)]

Bray Street / Site Driveway
Existing Conditions
Friday PM Peak Period
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Bray St (E)														
5	T1	435	2.2	435	2.2	0.307	1.3	LOS A	0.6	4.0	0.26	0.14	0.28	55.9
6	R2	111	0.0	111	0.0	0.307	8.3	LOS A	0.6	4.0	0.34	0.19	0.37	52.6
Approach		545	1.7	545	1.7	0.307	2.7	NA	0.6	4.0	0.27	0.15	0.30	55.2
North: Site Driveway														
7	L2	107	1.0	107	1.0	0.460	9.0	LOS A	1.5	10.6	0.47	0.76	0.66	42.3
9	R2	52	0.0	52	0.0	0.460	21.3	LOS B	1.5	10.6	0.47	0.76	0.66	48.6
Approach		159	0.7	159	0.7	0.460	13.0	LOS A	1.5	10.6	0.47	0.76	0.66	45.2
West: Bray St (W)														
10	L2	43	0.0	43	0.0	0.130	5.6	LOS A	2.9	20.7	0.00	0.10	0.00	57.4
11	T1	483	1.3	483	1.3	0.130	0.0	LOS A	2.9	20.7	0.00	0.04	0.00	59.1
Approach		526	1.2	526	1.2	0.130	0.5	NA	2.9	20.7	0.00	0.05	0.00	58.9
All Vehicles		1231	1.4	1231	1.4	0.460	3.1	NA	2.9	20.7	0.18	0.18	0.22	54.8

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

MOVEMENT SUMMARY

Site: 102 [Pacific Hwy / Bray St- EX FRI (Site Folder: Existing Peak Hour)]

Network: N101 [FRI Existing (Network Folder: Existing Conditions)]

Pacific Highway / Bray Street
Existing Conditions
Friday Peak PM Period
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pacific Hwy (S)														
1	L2	100	2.1	100	2.1	* 0.486	34.2	LOS C	10.2	73.4	0.73	0.71	0.73	30.4
2	T1	1358	3.7	1358	3.7	* 0.972	57.8	LOS E	34.8	251.3	0.92	0.99	1.10	21.0
3	R2	113	5.6	113	5.6	0.591	76.4	LOS F	5.0	36.4	1.00	0.79	1.00	26.4
Approach		1571	3.8	1571	3.8	0.972	57.6	LOS E	34.8	251.3	0.92	0.96	1.07	22.0
East: Orlando St (E)														
4	L2	126	4.2	126	4.2	0.154	11.5	LOS A	1.4	10.5	0.32	0.64	0.32	50.5
5	T1	148	1.4	148	1.4	* 0.997	115.3	LOS F	12.1	85.8	1.00	1.17	1.61	12.9
6	R2	249	1.7	249	1.7	0.997	121.4	LOS F	12.1	85.8	1.00	1.13	1.61	12.5
Approach		524	2.2	524	2.2	0.997	93.2	LOS F	12.1	85.8	0.84	1.02	1.30	17.7
North: Pacific Hwy (N)														
7	L2	198	4.3	198	4.3	0.140	8.8	LOS A	2.1	15.5	0.31	0.64	0.31	48.6
8	T1	1032	8.3	1032	8.3	0.491	24.7	LOS B	12.0	89.7	0.59	0.52	0.59	37.8
9	R2	318	1.7	318	1.7	* 0.825	88.1	LOS F	7.5	53.4	1.00	0.86	1.11	7.1
Approach		1547	6.4	1547	6.4	0.825	35.7	LOS C	12.0	89.7	0.64	0.61	0.66	29.9
West: Bray St (W)														
10	L2	364	1.2	364	1.2	0.674	54.8	LOS D	9.9	70.0	0.94	0.85	0.94	5.2
11	T1	135	1.6	135	1.6	0.455	62.8	LOS E	5.6	39.4	0.96	0.77	0.96	21.9
12	R2	94	0.0	94	0.0	0.329	66.3	LOS E	3.8	26.5	0.94	0.77	0.94	20.7
Approach		593	1.1	593	1.1	0.674	58.4	LOS E	9.9	70.0	0.94	0.82	0.94	13.5
All Vehicles		4235	4.2	4235	4.2	0.997	54.1	LOS D	34.8	251.3	0.81	0.82	0.93	22.5

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Pacific Hwy (S)											
P1	Full	1	69.1	LOS F	0.0	0.0	0.96	0.96	243.8	227.1	0.93
East: Orlando St (E)											
P2	Full	9	69.1	LOS F	0.0	0.0	0.96	0.96	232.1	211.9	0.91
North: Pacific Hwy (N)											

P3 Full	11	69.2	LOS F	0.0	0.0	0.96	0.96	245.9	229.8	0.93
West: Bray St (W)										
P4 Full	1	69.1	LOS F	0.0	0.0	0.96	0.96	237.2	218.5	0.92
All Pedestrians	22	69.1	LOS F	0.0	0.0	0.96	0.96	239.5	221.5	0.92

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

MOVEMENT SUMMARY

Site: 103 [Pacific Hwy / Park Beach Rd - EX FRI (Site Folder: Existing Peak Hour)]

Network: N101 [FRI Existing (Network Folder: Existing Conditions)]

Pacific Highway / Park Beach Road
Existing Conditions
Friday Peak PM Period
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pacific Hwy (S)														
2	T1	1553	4.0	1553	4.0	0.272	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
3	R2	400	0.5	400	0.5	* 0.610	48.2	LOS D	6.8	47.7	0.97	0.81	0.97	27.5
Approach		1953	3.3	1953	3.3	0.610	9.9	LOS A	6.8	47.7	0.20	0.17	0.20	48.2
East: Park Beach Rd (E)														
4	L2	424	3.0	424	3.0	0.349	44.3	LOS D	7.1	51.3	0.79	0.78	0.79	24.9
6	R2	95	1.1	95	1.1	* 0.603	79.4	LOS F	4.3	30.1	1.00	0.79	1.01	25.9
Approach		519	2.6	519	2.6	0.603	50.7	LOS D	7.1	51.3	0.83	0.78	0.83	25.2
North: Pacific Hwy (N)														
7	L2	103	1.0	103	1.0	0.068	7.4	LOS A	0.7	4.8	0.20	0.60	0.20	52.8
8	T1	1103	7.5	1103	7.5	* 0.345	17.9	LOS B	8.6	63.9	0.57	0.50	0.57	38.1
Approach		1206	7.0	1206	7.0	0.345	17.0	LOS B	8.6	63.9	0.54	0.51	0.54	39.8
All Vehicles		3678	4.4	3678	4.4	0.610	18.0	LOS B	8.6	63.9	0.40	0.37	0.40	40.7

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Park Beach Rd (E)											
P2	Full	14	69.2	LOS F	0.1	0.1	0.96	0.96	233.8	214.0	0.92
P2B	Slip/ Bypass	14	69.2	LOS F	0.1	0.1	0.96	0.96	228.4	207.0	0.91
North: Pacific Hwy (N)											
All Pedestrians		27	69.2	LOS F	0.1	0.1	0.96	0.96	231.1	210.5	0.91

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

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MOVEMENT SUMMARY

Site: 101 [Bray Street / Site Driveway - EX SAT (Site Folder: Existing Peak Hour)]

Network: N101 [SAT Existing (Network Folder: Existing Conditions)]

Bray Street / Site Driveway
Existing Conditions
Saturday Peak Period
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Bray St (E)														
5	T1	469	0.2	469	0.2	0.384	2.1	LOS A	1.0	6.7	0.34	0.19	0.42	54.4
6	R2	160	0.0	160	0.0	0.384	9.5	LOS A	1.0	6.7	0.50	0.27	0.60	50.3
Approach		629	0.2	629	0.2	0.384	4.0	NA	1.0	6.7	0.38	0.21	0.46	53.3
North: Site Driveway														
7	L2	126	0.0	126	0.0	0.457	8.9	LOS A	1.3	9.0	0.46	0.75	0.64	43.1
9	R2	32	0.0	32	0.0	0.457	25.2	LOS B	1.3	9.0	0.46	0.75	0.64	49.1
Approach		158	0.0	158	0.0	0.457	12.2	LOS A	1.3	9.0	0.46	0.75	0.64	44.9
West: Bray St (W)														
10	L2	53	0.0	53	0.0	0.149	5.6	LOS A	2.4	16.9	0.00	0.11	0.00	57.4
11	T1	552	0.4	552	0.4	0.149	0.0	LOS A	2.4	16.9	0.00	0.05	0.00	59.1
Approach		604	0.3	604	0.3	0.149	0.5	NA	2.4	16.9	0.00	0.05	0.00	58.8
All Vehicles		1392	0.2	1392	0.2	0.457	3.4	NA	2.4	16.9	0.23	0.20	0.28	54.2

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

MOVEMENT SUMMARY

Site: 102 [Pacific Hwy / Bray St - EX SAT (Site Folder: Existing Peak Hour)]

Network: N101 [SAT Existing (Network Folder: Existing Conditions)]

Pacific Highway / Bray Street
Existing Conditions
Saturday Peak Period
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 115 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pacific Hwy (S)														
1	L2	97	0.0	97	0.0	* 0.506	35.3	LOS C	9.2	65.4	0.82	0.77	0.82	29.9
2	T1	1206	1.8	1206	1.8	* 0.722	31.6	LOS C	15.3	108.8	0.88	0.78	0.88	29.6
3	R2	106	1.0	106	1.0	0.368	53.3	LOS D	3.3	23.6	0.94	0.78	0.94	31.8
Approach		1409	1.6	1409	1.6	0.722	33.5	LOS C	15.3	108.8	0.88	0.78	0.88	29.9
East: Orlando St (E)														
4	L2	145	0.7	145	0.7	0.160	13.0	LOS A	1.6	11.3	0.40	0.66	0.40	49.9
5	T1	141	0.0	141	0.0	* 0.744	54.6	LOS D	6.9	48.7	1.00	0.88	1.11	21.7
6	R2	248	0.8	248	0.8	0.744	60.4	LOS E	6.9	48.7	1.00	0.87	1.11	20.8
Approach		535	0.6	535	0.6	0.744	46.0	LOS D	6.9	48.7	0.84	0.82	0.92	27.9
North: Pacific Hwy (N)														
7	L2	226	0.9	226	0.9	0.159	8.3	LOS A	1.9	13.6	0.34	0.65	0.34	49.2
8	T1	1261	3.0	1261	3.0	0.705	22.2	LOS B	12.8	91.6	0.69	0.61	0.69	39.3
9	R2	404	0.3	404	0.3	* 0.708	64.8	LOS E	7.1	50.1	1.00	0.84	1.03	9.2
Approach		1892	2.2	1892	2.2	0.708	29.6	LOS C	12.8	91.6	0.72	0.66	0.72	32.7
West: Bray St (W)														
10	L2	441	0.2	441	0.2	0.739	42.7	LOS D	10.0	70.0	0.95	0.87	0.97	6.4
11	T1	129	0.0	129	0.0	0.545	52.8	LOS D	4.3	30.3	0.99	0.79	0.99	24.4
12	R2	97	1.1	97	1.1	0.432	56.8	LOS E	3.2	22.5	0.97	0.78	0.97	22.8
Approach		667	0.3	667	0.3	0.739	46.7	LOS D	10.0	70.0	0.96	0.84	0.97	15.0
All Vehicles		4503	1.5	4503	1.5	0.744	35.3	LOS C	15.3	108.8	0.82	0.74	0.83	28.7

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Pacific Hwy (S)											
P1	Full	1	51.7	LOS E	0.0	0.0	0.95	0.95	226.4	227.1	1.00
East: Orlando St (E)											
P2	Full	26	51.7	LOS E	0.1	0.1	0.95	0.95	214.7	211.9	0.99
North: Pacific Hwy (N)											

P3 Full	16	51.7	LOS E	0.0	0.0	0.95	0.95	228.5	229.8	1.01
West: Bray St (W)										
P4 Full	1	51.7	LOS E	0.0	0.0	0.95	0.95	219.7	218.5	0.99
All Pedestrians	44	51.7	LOS E	0.1	0.1	0.95	0.95	220.0	218.8	0.99

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

MOVEMENT SUMMARY

Site: 103 [Pacific Hwy / Park Beach Rd - EX SAT (Site Folder: Existing Peak Hour)]

Network: N101 [SAT Existing (Network Folder: Existing Conditions)]

Pacific Highway / Park Beach Road
Existing Conditions
Saturday Peak Period
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 115 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pacific Hwy (S)														
2	T1	1321	1.8	1321	1.8	0.229	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	558	0.4	558	0.4	* 0.568	29.3	LOS C	6.2	43.4	0.94	0.82	0.94	34.6
Approach		1879	1.4	1879	1.4	0.568	8.7	LOS A	6.2	43.4	0.28	0.24	0.28	49.2
East: Park Beach Rd (E)														
4	L2	542	1.4	542	1.4	0.313	25.2	LOS B	5.6	40.0	0.65	0.75	0.65	33.3
6	R2	107	2.0	107	2.0	* 0.571	60.7	LOS E	3.7	26.1	1.00	0.79	1.00	29.9
Approach		649	1.5	649	1.5	0.571	31.1	LOS C	5.6	40.0	0.71	0.76	0.71	32.3
North: Pacific Hwy (N)														
7	L2	178	0.6	178	0.6	0.131	8.1	LOS A	1.3	8.9	0.28	0.63	0.28	52.3
8	T1	1353	2.6	1353	2.6	* 0.578	27.3	LOS B	12.1	86.7	0.82	0.72	0.82	32.0
Approach		1531	2.3	1531	2.3	0.578	25.1	LOS B	12.1	86.7	0.75	0.71	0.75	34.7
All Vehicles		4059	1.8	4059	1.8	0.578	18.5	LOS B	12.1	86.7	0.53	0.50	0.53	40.2

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Park Beach Rd (E)											
P2	Full	14	51.7	LOS E	0.0	0.0	0.95	0.95	216.3	214.0	0.99
P2B	Slip/ Bypass	14	51.7	LOS E	0.0	0.0	0.95	0.95	210.9	207.0	0.98
North: Pacific Hwy (N)											
All Pedestrians		27	51.7	LOS E	0.0	0.0	0.95	0.95	213.6	210.5	0.99

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

Project: \\192.168.1.107\mte storage\Jobs\2021\210047\MTE SIDRA\Final Sidra\4 Bray Street 21 04 22 - TS Edits.sip9

MOVEMENT SUMMARY

Site: 101 [Bray Street / Site Driveway - FU FRI (Site Folder: Future Peak Hour)]

Network: N101 [FRI Future (Network Folder: Future Conditions)]

Bray Street / Site Driveway
Future Conditions
Friday PM Peak Period
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Bray St (E)														
5	T1	435	2.2	435	2.2	0.345	1.7	LOS A	0.8	5.4	0.30	0.18	0.35	55.1
6	R2	147	0.0	147	0.0	0.345	8.7	LOS A	0.8	5.4	0.43	0.25	0.49	51.3
Approach		582	1.6	582	1.6	0.345	3.5	NA	0.8	5.4	0.34	0.20	0.38	54.1
North: Site Driveway														
7	L2	145	0.7	145	0.7	0.619	12.4	LOS A	2.0	14.4	0.48	0.85	0.89	38.9
9	R2	64	0.0	64	0.0	0.619	26.7	LOS B	2.0	14.4	0.48	0.85	0.89	46.3
Approach		209	0.5	209	0.5	0.619	16.8	LOS B	2.0	14.4	0.48	0.85	0.89	42.1
West: Bray St (W)														
10	L2	56	0.0	56	0.0	0.133	5.6	LOS A	2.9	20.2	0.00	0.13	0.00	57.2
11	T1	483	1.3	483	1.3	0.133	0.0	LOS A	2.9	20.2	0.00	0.05	0.00	59.0
Approach		539	1.2	539	1.2	0.133	0.6	NA	2.9	20.2	0.00	0.06	0.00	58.6
All Vehicles		1331	1.3	1331	1.3	0.619	4.4	NA	2.9	20.2	0.22	0.24	0.31	53.0

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

MOVEMENT SUMMARY

Site: 102 [Pacific Hwy / Bray St- FU FRI (Site Folder: Future Peak Hour)]

Network: N101 [FRI Future (Network Folder: Future Conditions)]

Pacific Highway / Bray Street
Future Conditions
Friday Peak PM Period
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 145 seconds (Network Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pacific Hwy (S)														
1	L2	115	1.8	115	1.8	* 0.494	33.4	LOS C	10.0	71.8	0.74	0.72	0.74	30.7
2	T1	1358	3.7	1358	3.7	* 0.989	62.4	LOS E	36.3	262.1	0.93	1.03	1.15	19.9
3	R2	113	5.6	113	5.6	0.572	73.5	LOS F	4.8	35.0	1.00	0.79	1.00	27.0
Approach		1585	3.7	1585	3.7	0.989	61.1	LOS E	36.3	262.1	0.92	0.99	1.11	21.1
East: Orlando St (E)														
4	L2	126	4.2	126	4.2	0.154	12.0	LOS A	1.5	10.8	0.34	0.65	0.34	50.2
5	T1	154	1.4	154	1.4	* 0.976	102.7	LOS F	11.4	80.7	1.00	1.14	1.55	14.1
6	R2	249	1.7	249	1.7	0.976	108.7	LOS F	11.4	80.7	1.00	1.10	1.56	13.6
Approach		529	2.2	529	2.2	0.976	83.9	LOS F	11.4	80.7	0.84	1.00	1.27	19.0
North: Pacific Hwy (N)														
7	L2	198	4.3	198	4.3	0.140	8.3	LOS A	1.7	12.1	0.25	0.62	0.25	49.0
8	T1	1032	8.3	1032	8.3	0.495	24.8	LOS B	11.9	88.9	0.62	0.54	0.62	37.7
9	R2	335	1.6	335	1.6	* 0.839	86.0	LOS F	7.7	54.6	1.00	0.87	1.13	7.2
Approach		1564	6.3	1564	6.3	0.839	35.8	LOS C	11.9	88.9	0.65	0.62	0.68	29.8
West: Bray St (W)														
10	L2	382	1.1	382	1.1	0.716	54.3	LOS D	9.9	70.0	0.96	0.86	0.96	5.2
11	T1	140	1.5	140	1.5	0.501	62.4	LOS E	5.7	40.2	0.97	0.78	0.97	22.0
12	R2	108	0.0	108	0.0	0.403	66.2	LOS E	4.3	30.3	0.95	0.78	0.95	20.7
Approach		631	1.0	631	1.0	0.716	58.1	LOS E	9.9	70.0	0.96	0.83	0.96	13.7
All Vehicles		4309	4.1	4309	4.1	0.989	54.3	LOS D	36.3	262.1	0.82	0.83	0.95	22.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Pacific Hwy (S)											
P1	Full	1	66.6	LOS F	0.0	0.0	0.96	0.96	241.3	227.1	0.94
East: Orlando St (E)											
P2	Full	9	66.7	LOS F	0.0	0.0	0.96	0.96	229.7	211.9	0.92

North: Pacific Hwy (N)										
P3 Full	11	66.7	LOS F	0.0	0.0	0.96	0.96	243.4	229.8	0.94
West: Bray St (W)										
P4 Full	1	66.6	LOS F	0.0	0.0	0.96	0.96	234.7	218.5	0.93
All Pedestrians	22	66.6	LOS F	0.0	0.0	0.96	0.96	237.0	221.5	0.93

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

MOVEMENT SUMMARY

Site: 103 [Pacific Hwy / Park Beach Rd - FU FRI (Site Folder: Future Peak Hour)]

Network: N101 [FRI Future (Network Folder: Future Conditions)]

Pacific Highway / Park Beach Road
Future Conditions
Friday Peak PM Period
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 145 seconds (Network Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pacific Hwy (S)														
2	T1	1571	4.0	1571	4.0	0.275	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
3	R2	400	0.5	400	0.5	* 0.663	49.7	LOS D	6.9	48.7	1.00	0.82	1.00	27.0
Approach		1971	3.3	1971	3.3	0.663	10.1	LOS A	6.9	48.7	0.20	0.17	0.20	48.0
East: Park Beach Rd (E)														
4	L2	424	3.0	424	3.0	0.374	45.7	LOS D	7.2	51.5	0.81	0.79	0.81	24.4
6	R2	95	1.1	95	1.1	* 0.688	80.3	LOS F	4.2	30.0	1.00	0.82	1.09	25.8
Approach		519	2.6	519	2.6	0.688	52.0	LOS D	7.2	51.5	0.85	0.79	0.87	24.8
North: Pacific Hwy (N)														
7	L2	103	1.0	103	1.0	0.068	7.5	LOS A	0.7	4.9	0.21	0.60	0.21	52.7
8	T1	1120	7.4	1120	7.4	* 0.338	15.8	LOS B	8.0	59.9	0.55	0.48	0.55	39.8
Approach		1223	6.9	1223	6.9	0.338	15.1	LOS B	8.0	59.9	0.52	0.49	0.52	41.4
All Vehicles		3713	4.4	3713	4.4	0.688	17.6	LOS B	8.0	59.9	0.40	0.36	0.40	41.0

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Park Beach Rd (E)											
P2	Full	14	66.7	LOS F	0.1	0.1	0.96	0.96	231.3	214.0	0.93
P2B	Slip/ Bypass	14	66.7	LOS F	0.1	0.1	0.96	0.96	225.9	207.0	0.92
North: Pacific Hwy (N)											
All Pedestrians		27	66.7	LOS F	0.1	0.1	0.96	0.96	228.6	210.5	0.92

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

MOVEMENT SUMMARY

Site: 101 [Bray Street / Site Driveway - FU SAT (Site Folder: Future Peak Hour)]

Network: N101 [SAT Future (Network Folder: Future Conditions)]

Bray Street / Site Driveway
Future Conditions
Saturday Peak Period
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Bray St (E)														
5	T1	469	0.2	469	0.2	0.422	2.5	LOS A	1.2	8.1	0.37	0.22	0.47	53.8
6	R2	192	0.0	192	0.0	0.422	9.9	LOS A	1.2	8.1	0.56	0.33	0.70	49.3
Approach		661	0.2	661	0.2	0.422	4.6	NA	1.2	8.1	0.43	0.25	0.53	52.4
North: Site Driveway														
7	L2	159	0.0	159	0.0	0.606	12.3	LOS A	1.7	11.7	0.48	0.84	0.88	39.5
9	R2	42	0.0	42	0.0	0.606	30.6	LOS C	1.7	11.7	0.48	0.84	0.88	46.7
Approach		201	0.0	201	0.0	0.606	16.1	LOS B	1.7	11.7	0.48	0.84	0.88	41.7
West: Bray St (W)														
10	L2	63	0.0	63	0.0	0.151	5.6	LOS A	2.4	17.1	0.00	0.13	0.00	57.2
11	T1	552	0.4	552	0.4	0.151	0.0	LOS A	2.4	17.1	0.00	0.05	0.00	59.0
Approach		615	0.3	615	0.3	0.151	0.6	NA	2.4	17.1	0.00	0.06	0.00	58.6
All Vehicles		1477	0.2	1477	0.2	0.606	4.5	NA	2.4	17.1	0.26	0.25	0.36	52.7

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

MOVEMENT SUMMARY

Site: 102 [Pacific Hwy / Bray St - FU SAT (Site Folder: Future Peak Hour)]

Network: N101 [SAT Future (Network Folder: Future Conditions)]

Pacific Highway / Bray Street
Future Conditions
Saturday Peak Period
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pacific Hwy (S)														
1	L2	109	0.0	109	0.0	* 0.512	33.7	LOS C	8.9	63.0	0.82	0.78	0.82	30.6
2	T1	1206	1.8	1206	1.8	* 0.731	30.4	LOS C	14.9	105.7	0.88	0.79	0.88	30.2
3	R2	106	1.0	106	1.0	0.373	51.6	LOS D	3.2	22.7	0.94	0.78	0.94	32.2
Approach		1422	1.6	1422	1.6	0.731	32.2	LOS C	14.9	105.7	0.88	0.78	0.88	30.5
East: Orlando St (E)														
4	L2	145	0.7	145	0.7	0.161	13.3	LOS A	1.6	11.3	0.42	0.67	0.42	49.7
5	T1	145	0.0	145	0.0	* 0.767	53.5	LOS D	6.8	47.9	1.00	0.90	1.14	22.0
6	R2	248	0.8	248	0.8	0.767	59.3	LOS E	6.8	47.9	1.00	0.89	1.15	21.1
Approach		539	0.6	539	0.6	0.767	45.3	LOS D	6.8	47.9	0.84	0.83	0.95	28.1
North: Pacific Hwy (N)														
7	L2	226	0.9	226	0.9	0.159	8.1	LOS A	1.8	12.7	0.33	0.64	0.33	49.3
8	T1	1261	3.0	1261	3.0	0.708	21.5	LOS B	12.3	88.1	0.70	0.61	0.70	39.8
9	R2	419	0.3	419	0.3	* 0.743	63.2	LOS E	7.2	50.2	1.00	0.85	1.05	9.4
Approach		1906	2.2	1906	2.2	0.743	29.1	LOS C	12.3	88.1	0.72	0.67	0.73	32.9
West: Bray St (W)														
10	L2	456	0.2	456	0.2	0.773	43.3	LOS D	10.0	70.0	0.97	0.89	1.02	6.4
11	T1	134	0.0	134	0.0	0.580	51.2	LOS D	4.3	30.2	0.99	0.79	0.99	24.8
12	R2	109	1.0	109	1.0	0.502	55.6	LOS D	3.5	24.7	0.98	0.78	0.98	23.1
Approach		699	0.3	699	0.3	0.773	46.7	LOS D	10.0	70.0	0.98	0.85	1.01	15.1
All Vehicles		4566	1.5	4566	1.5	0.773	34.7	LOS C	14.9	105.7	0.82	0.75	0.85	28.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Pacific Hwy (S)											
P1	Full	1	49.2	LOS E	0.0	0.0	0.95	0.95	223.9	227.1	1.01
East: Orlando St (E)											
P2	Full	26	49.2	LOS E	0.1	0.1	0.95	0.95	212.2	211.9	1.00

North: Pacific Hwy (N)										
P3 Full	16	49.2	LOS E	0.0	0.0	0.95	0.95	226.0	229.8	1.02
West: Bray St (W)										
P4 Full	1	49.2	LOS E	0.0	0.0	0.95	0.95	217.2	218.5	1.01
All Pedestrians	44	49.2	LOS E	0.1	0.1	0.95	0.95	217.5	218.8	1.01

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

MOVEMENT SUMMARY

Site: 103 [Pacific Hwy / Park Beach Rd - FU SAT (Site Folder: Future Peak Hour)]

Network: N101 [SAT Future (Network Folder: Future Conditions)]

Pacific Highway / Park Beach Road
Future Conditions
Saturday Peak Period
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Optimum Cycle Time - Minimum Delay)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pacific Hwy (S)														
2	T1	1336	1.8	1336	1.8	0.231	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	558	0.4	558	0.4	* 0.580	28.8	LOS C	6.0	41.8	0.94	0.82	0.94	34.9
Approach		1894	1.4	1894	1.4	0.580	8.5	LOS A	6.0	41.8	0.28	0.24	0.28	49.4
East: Park Beach Rd (E)														
4	L2	542	1.4	542	1.4	0.317	24.8	LOS B	5.5	38.7	0.66	0.75	0.66	33.6
6	R2	107	2.0	107	2.0	* 0.596	59.3	LOS E	3.6	25.3	1.00	0.80	1.02	30.2
Approach		649	1.5	649	1.5	0.596	30.5	LOS C	5.5	38.7	0.72	0.76	0.72	32.6
North: Pacific Hwy (N)														
7	L2	178	0.6	178	0.6	0.131	8.0	LOS A	1.2	8.4	0.28	0.63	0.28	52.3
8	T1	1367	2.5	1367	2.5	* 0.581	26.1	LOS B	11.7	83.8	0.82	0.72	0.82	32.6
Approach		1545	2.3	1545	2.3	0.581	24.1	LOS B	11.7	83.8	0.76	0.71	0.76	35.3
All Vehicles		4088	1.8	4088	1.8	0.596	17.9	LOS B	11.7	83.8	0.53	0.50	0.53	40.7

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Park Beach Rd (E)											
P2	Full	14	49.2	LOS E	0.0	0.0	0.95	0.95	213.8	214.0	1.00
P2B	Slip/ Bypass	14	49.2	LOS E	0.0	0.0	0.95	0.95	208.4	207.0	0.99
North: Pacific Hwy (N)											
All Pedestrians		27	49.2	LOS E	0.0	0.0	0.95	0.95	211.1	210.5	1.00

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

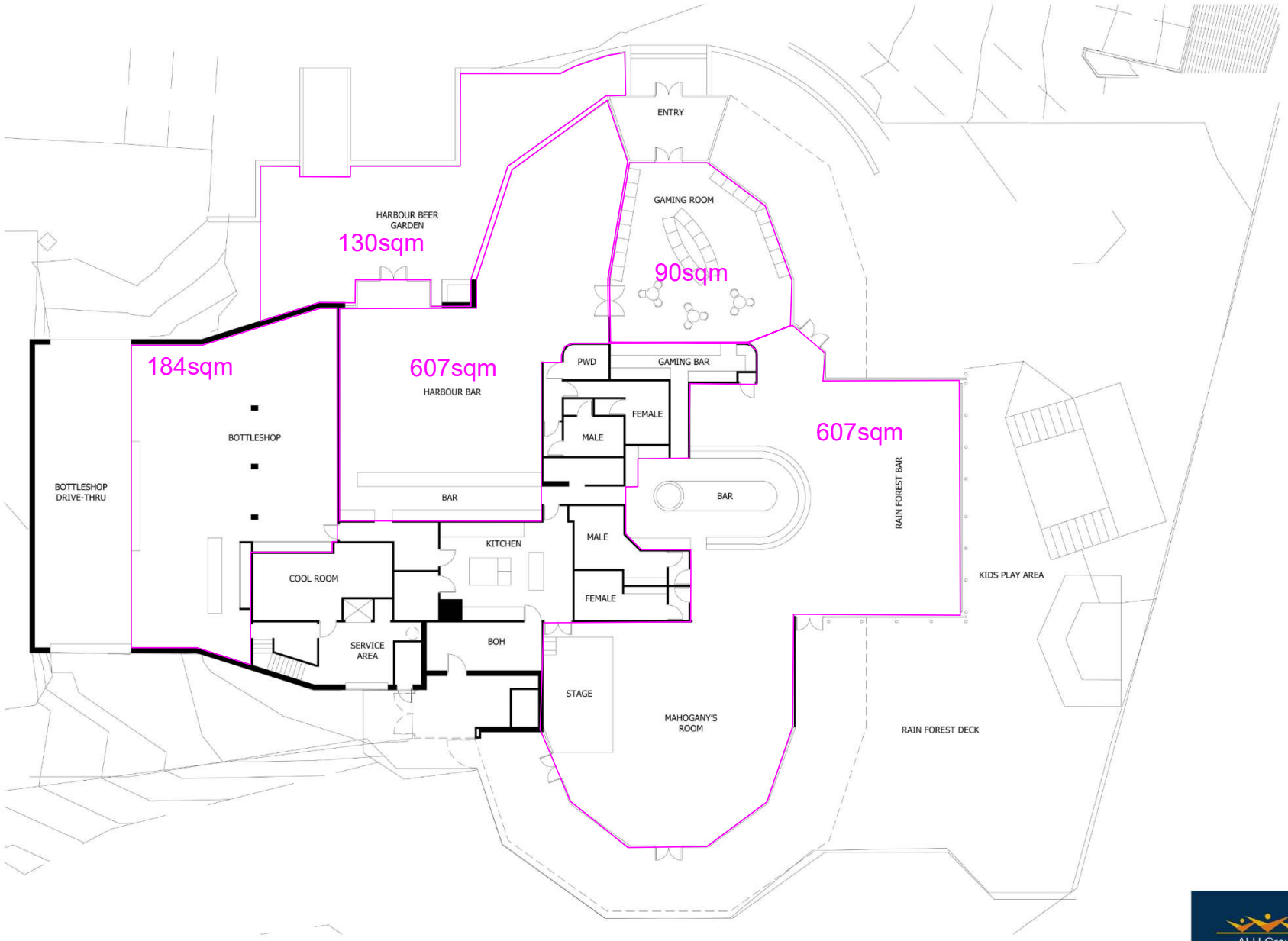
ANNEXURE F: GREENHOUSE TAVERN SALES DATA

(1 SHEET)

AVERAGE COVERS	MONDAYS	TUESDAYS	WEDNESDAYS	THURSDAYS	FRIDAYS	SATURDAYS	SUNDAYS
WEEK 1	404	596	664	546	634	574	491
WEEK 2	384	372	539	547	481	603	341
WEEK 3	254	232	421	497	1080	688	550
WEEK 4	316	288	425	395	592	352	476
WEEK 5	412	194	310	389	460	520	272
WEEK 6	238	281	326	375	913	796	511
WEEK 7	228	286	426	355	888	685	400
WEEK 8	207	267	484	343	554	696	258
WEEK 9	187	211	357	369	485	708	430
WEEK 10	251	232	368	404	936	636	348
WEEK 11	273	329	381	445	740	656	334
WEEK 12	266	278	399	412	564	637	445
WEEK 13	223	202	385	484	666	999	488
WEEK 14	205	172	426	410	817	571	373
WEEK 15	245	307	368	383	542	547	515
WEEK 16	269	356	434	476	586	838	579
WEEK 17	565	486	578	741	628	684	382
WEEK 18	273	254	327	390	529	640	413
WEEK 19	255	162	379	370	923	623	541
WEEK 20	217	214	331	417	479	560	402
WEEK 21	313	243	312	259	589	575	465
WEEK 22	184	167	297	314	421	452	365
WEEK 23	191	247	381	281	597	760	585
WEEK 24	287	291	300	339	779	564	249
WEEK 25	262	267	301	308	443	447	344
WEEK 26	197	233	360	310	553	597	357
WEEK 27	276	260	332	421	556	694	383
WEEK 28	407	408	426	418	877	700	386
WEEK 29	381	476	464	444	696	611	472
WEEK 30	304	208	320	317	460	464	379
WEEK 31	227	233	337	555	419	603	355
WEEK 32	190	194	496	374	579	429	334
WEEK 33	336	366	438	309	1235	767	348
WEEK 34	231	310	334	383	617	461	329
WEEK 35	299	247	327	345	630	549	528
WEEK 36	272	187	325	333	476	513	405
WEEK 37	255	256	295	347	791	515	395
WEEK 38	247	257	252	335	591	643	591
WEEK 39	290	291	413	369	683	621	521
WEEK 40	385	483	365	582	610	703	837
WEEK 41	504	306	424	457	797	783	511
WEEK 42	249	262	337	443	689	853	351
WEEK 43	278	217	370	349	540	562	426
WEEK 44	226	214	347	427	480	852	579
WEEK 45	225	368	291	406	703	492	394
WEEK 46	258	259	392	316	695	488	339
WEEK 47	308	407	438	399	533	749	380
WEEK 48	329	400	423	461	733	613	384
WEEK 49	325	330	450	380	655	580	526
WEEK 50	332	466	419	456	711	652	436
WEEK 51	293	303	534	373	825	840	484
WEEK 52	461	352	857	692	837	914	707

ANNEXURE G: GREENHOUSE TAVERN GFA CALCULATION

(2 SHEETS)



Cayas

Suite 2, 19-25 Mark Avenue, Kelvin Grove
PO Box 360, Wilston Q 4051
p 07 3356 6100 | f 07 3356 0664 | e admin@cayasarchitects.com.au

ALH Group

Greenhouse Tavern

Existing Floor Plan - 1961-SK03 'A'

Project number - 1961 1:100@A1 Date - 12.02.20

Cayas

Suite 2, 19-25 Musk Avenue, Kelvin Grove
PO Box 360, Wilston Q 4051
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ALH Group

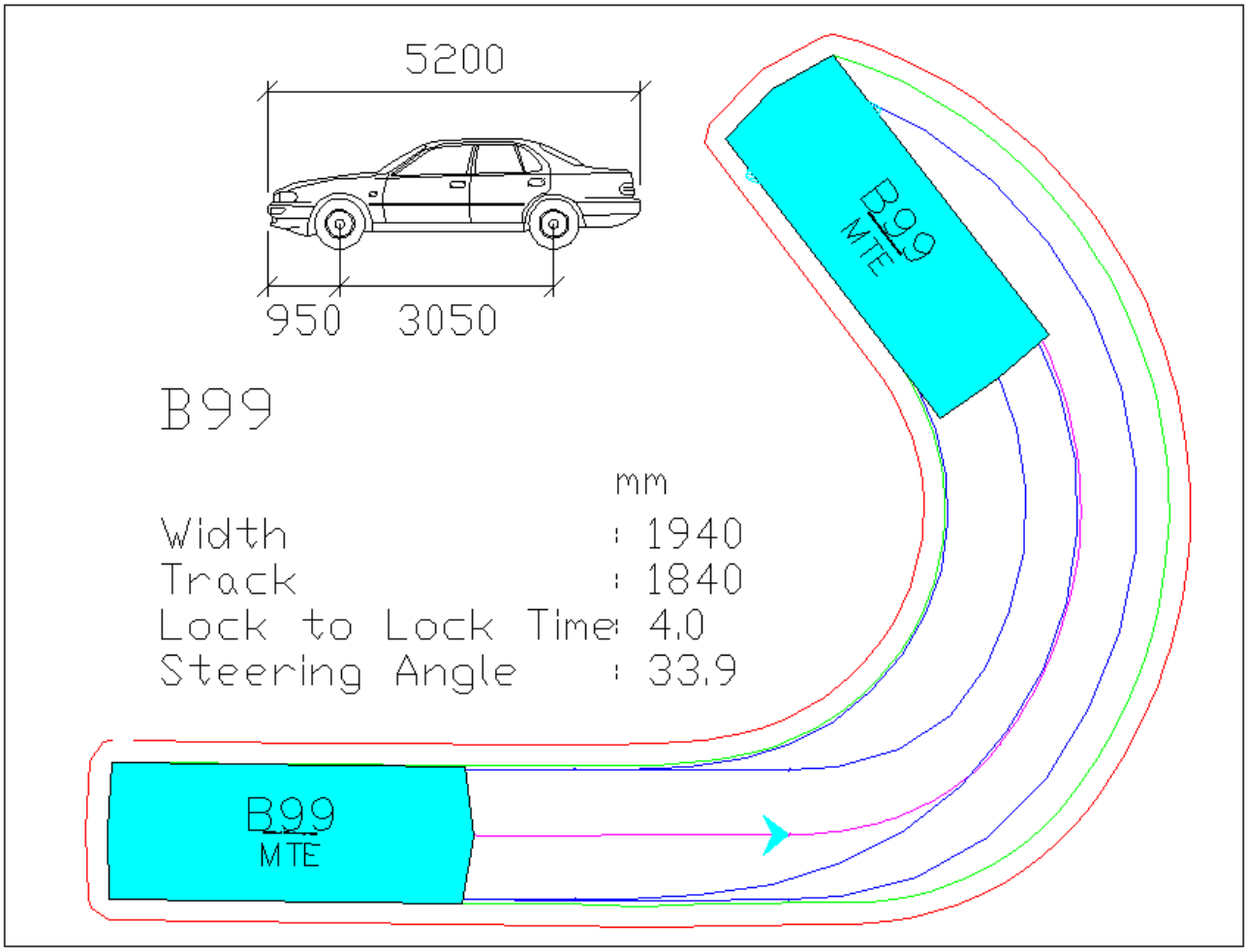
Greenhouse Tavern

Sketch Floor Plan - 1961-SK04 'A'

Project number - 1961 1:100@A1 Date - 12.02.20

ANNEXURE H: SWEPT PATH TESTS

(4 SHEETS)

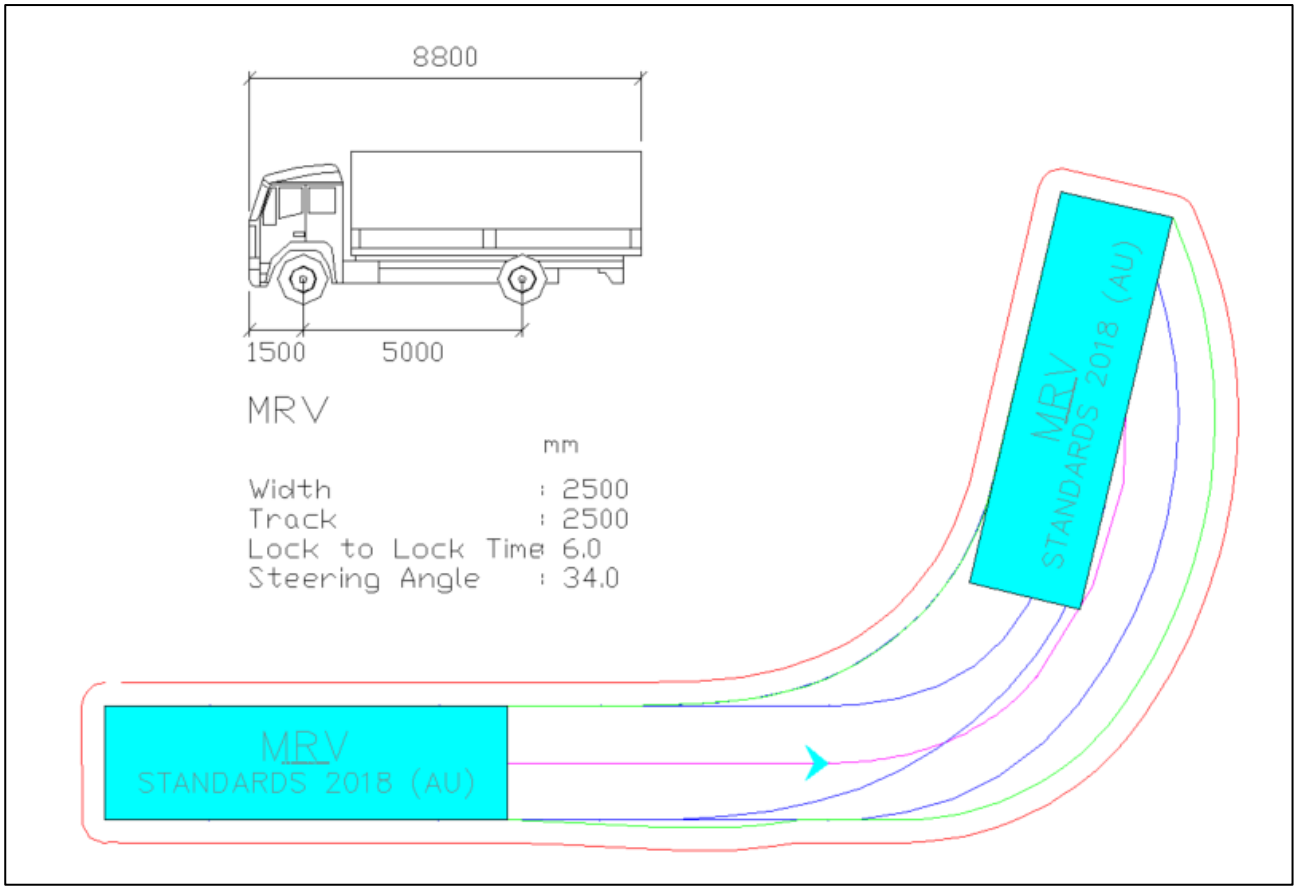


AUSTRALIAN STANDARD 99.8TH PERCENTILE SIZE VEHICLE (B99)

Blue – Tyre Path

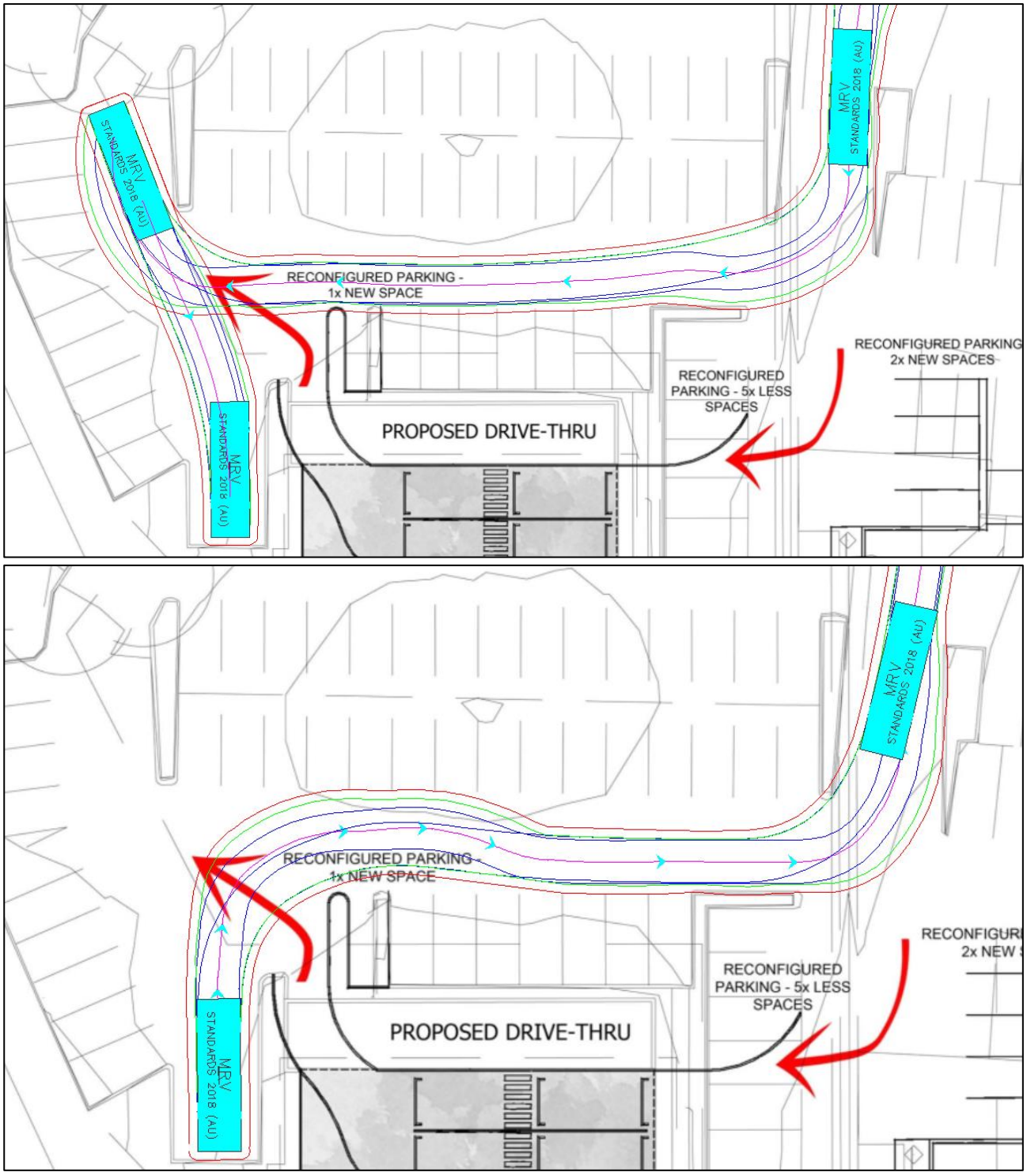
Green – Vehicle Body

Red – 300mm Clearance

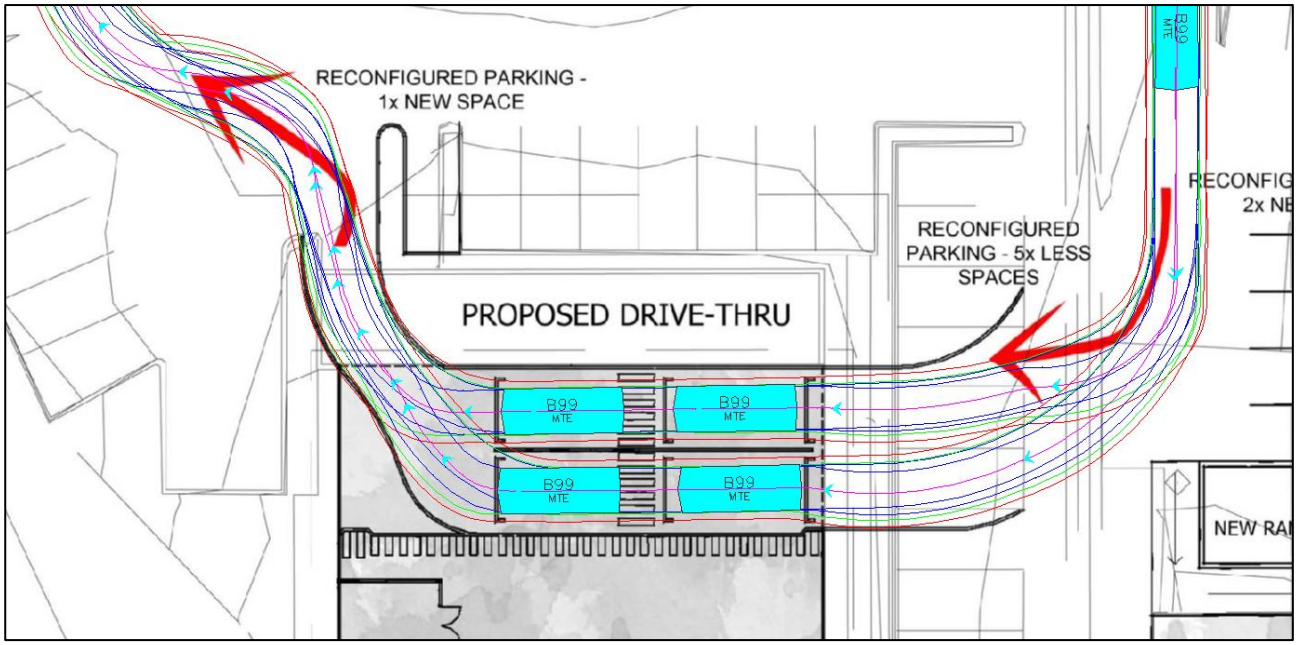


AUSTRALIAN STANDARD MEDIUM RIGID VEHICLE (MRV)

Blue – Tyre Path
Green – Vehicle Body
Red – 500mm Clearance



MRV ENTRY and EXIT loading dock
SUCCESSFUL



B99 ENTRY and EXIT Proposed drive-thru bottle shop
SUCCESSFUL