TRANSPORTATION PLANNERS AND ENGINEERS

bunt & associates

1057 Gibsons Way

Transportation Impact Assessment

Final Report

Prepared for

PCRE Group

Date

August 29, 2023

Project No.

04-21-0241

August 29, 2023
04-21-0241

Daniel Lopez
Real Estate Development Manager
PCRE Group
Suite 1774, Four Bentall Centre
1055 Dunsmuir Street

Dear Daniel:

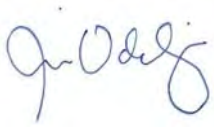
Re: 1057 Gibsons Way
Transportation Impact Assessment

We have prepared the attached Transportation Impact Assessment Study to support the Rezoning Application for the proposed mixed-use development at 1057 Gibsons Way in Gibsons, BC.

The analysis summarized in this report was undertaken in accordance with the study scope as agreed in consultation with the Town of Gibsons staff. The conclusions and recommendations confirm the adequacy of the transportation infrastructure that serves the proposed development.

Please contact us if you have any questions or wish to discuss our report in further detail.

Yours truly,
Bunt & Associates



Jason Potter, M.Sc., PTP
Senior Transportation Planner

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CORPORATE AUTHORIZATION

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Permit No. 1000468

2023-09-01

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1. INTRODUCTION

1.1 Study Purpose, Scope & Objectives

PCRE group retained Bunt and Associates to provide a Traffic Impact Assessment (TIA) study to support their proposes development at 1057 Gibsons Way in the Town of Gibsons, BC.

This study will examine the development's impact on the surrounding traffic network at the anticipated opening day (2025) and opening day + 10 years (2035), assess the proposed parking and loading supply based on Bylaw requirements and recommend Transportation Demand Management strategies. The development's opening day is now anticipated to be in the fall of 2026, however it is noted that this one-year discrepancy is not anticipated to have any impact to this study's findings or recommendations. Given the site's proximity to the Sunshine Coast Highway (Highway 101), BC Ministry of Transportation and Infrastructure (BC MoTI) review and approval of the study will also be required.

The study area, as shown in **Exhibit 1.1**, includes the following existing and proposed future intersections:

- Pratt/Payne Road & Sunshine Coast Highway (signalized);
- Pratt Road future site access (unsignalized); and,
- Sunshine Coast Highway future site access (unsignalized).

Overall, the purpose of this study is to determine if adequate transportation infrastructure exists to serve the proposed development and to identify upgrades required, if any, to mitigate the impacts on the transportation system.

1.2 Proposed Development

The proposal is for 2 five-storey mixed-used buildings with 1 to 2 levels of underground parking. Building A includes commercial and live/work units facing Sunshine Coast Highway with residential units located behind and on the upper floors. Building B has Live-Work units on the north side of the building and residential units located behind. **Table 1.1** summarizes the proposed uses while **Table 1.2** presents the unit breakdown. **Exhibit 1.2** illustrates the site plan.

Table 1.1: Proposed Land Uses

LAND USE	DENSITY	UNITS
Residential Medium Rise	141	Dwelling Units
Commercial Retail Units	3	Units
	284.4	Square meters GFA
Live/Work	5	Units
Retail component of the Live/Work Units	559.28	Square meters GFA
Dwelling component of the Live/Work Units	507.53	Square meters GFA

Table 1.2: Proposed Residential Units Breakdown

BUILDING	STUDIO	1-BEDROOM	2-BEDROOM	LIVE/WORK	COMMERCIAL AND RETAIL
Building A	15	23	26	3	3
Building B	10	43	24	2	0
TOTAL	25	66	50	5	3

In total, there are 141 residential units, 5 live/work units and 3 commercial and retail units.

Two access driveways are proposed, one on Pratt Road and the other one on Sunshine Coast Highway. The Ministry has expressed their interest of limiting access points to/from controlled access highways such as Sunshine Coast Highway. However, the development deems that the proposed driveway on the highway is essential for the success of the future businesses on this site as it would facilitate efficient access to the commercial units and commercial parking located on the north side of the proposed development. Moreover, the majority of the population is located to the east of the site thus an access driveway directly on Gibsons Way is advantageous and is anticipated to reduce the need for dual left turn movements at a signalized Gibsons Way & Pratt Road then again at the site access.

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Exhibit 1.1
Site Location

1057 Gibsons Way TIA
04-21-0241 August 2023

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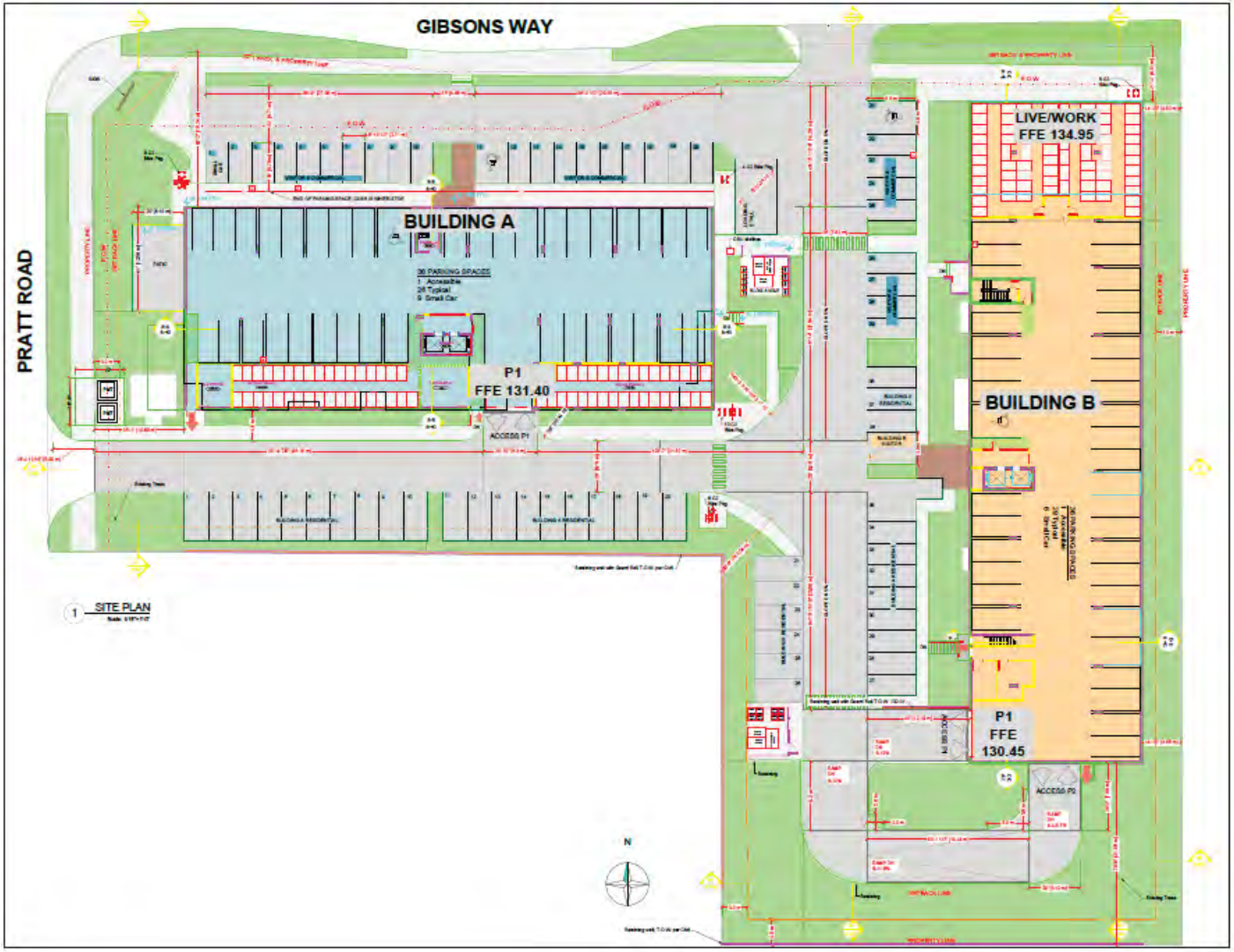

Exhibit 1.2
Site Plan

1057 Gibsons Way TIA
04-21-0241 August 2023

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2. EXISTING CONDITIONS

2.1 Land Use

The site is bounded by the Sunshine Coast Highway to the north, Pratt Road to the west, and by commercial to the east and commercial and residential land uses to the south. The surrounding land uses are illustrated in **Exhibit 2.1**.

The site is located in the Upper Gibsons Mixed-Use Commercial Land Use Plan Designation and within the Upper Gibsons Commercial Development Permit Area No.3 per the Gibsons OCP. Currently, the site is occupied by a two-storey commercial structure. It is also just within 800 meters (10-15 minute walking distance) to the Sunnycrest Mall and to a variety of restaurants, retailers and amenities in the area.

Outside of the commercial district, the area is largely residential consisting mostly of single-family residential houses but with multi-family residential buildings situated closer to Gibsons Way and School Road. Gibsons Elementary School, Elphinstone Secondary School and Sunshine Coast Alternative School are all situated nearby.

Within 2km southeast of the site is Gibsons Landing which hosts various restaurants, cafes and retail. Gibsons Landing is accessible from the site through the two bus routes that serve the bus stop in front of the site.

2.2 Existing Transportation Network

2.2.1 Road Network

To the north of development site is Gibsons Way, an arterial road and one of the major streets in the Town of Gibsons. Gibsons Way connects to Gibsons Landing and Langdale Ferry Terminal to the east thus it serves as a major truck route for goods movements to and from BC Ferries. In front of the site, the road has painted bike lanes and one travel lane in each direction with a painted median/ centre lane.

To the west of the site is Pratt Road, a major collector road with two travel lanes that forms a link to Chaster Road and King Road, two major collector roads to the south. **Table 2.1** summarizes the existing road network characteristics. **Exhibit 2.2** shows the existing lane configuration.

Table 2.1: Existing Street Characteristics

STREET	CLASSIFICATION	NUMBER OF TRAVEL LANES	POSTED SPEED	PARKING FACILITIES
Gibsons Way (Sunshine Coast Highway)	Arterial	2	50 km/h	None
Pratt Road	Collector	2	50 km/h	None

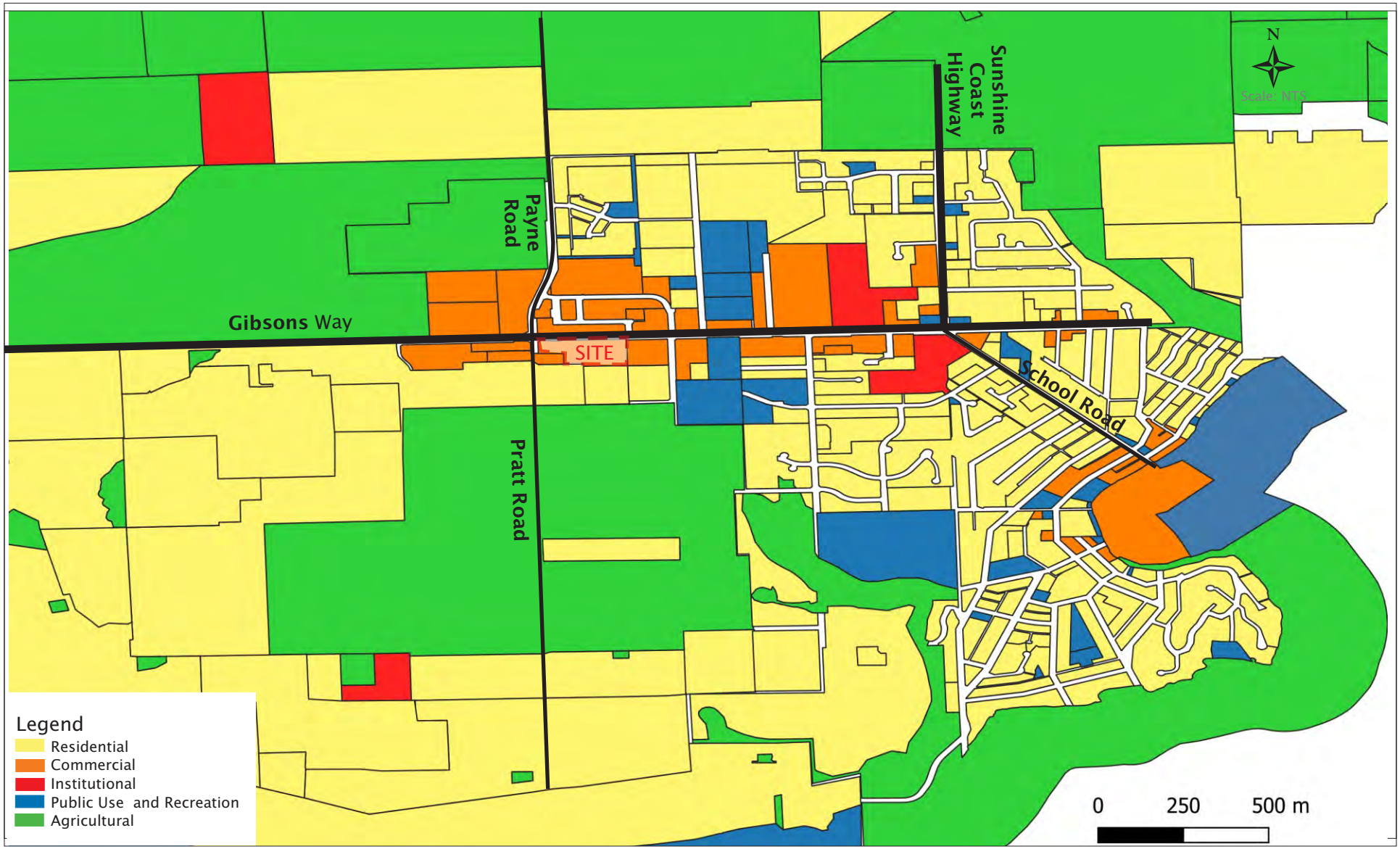

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Exhibit 2.1

Land Use Map

1057 Gibsons Way TIA
04-21-0241 August 2023

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Exhibit 2.2

Existing Road Network Laning

1057 Gibsons Way TIA
04-21-0241 May 2023

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2.2.2 Transit Network

The Sunshine Coast Transit System, operated by the Regional District, provides bus services to the site. Bus routes number 1 and 90 services the bus stops that are within 5-minute walk of the site. Both routes connect the site to Langdale Ferry Terminal and Gibsons Landing to the east and Sechelt to the west. Route number 90 is an express route, and therefore has fewer stops in Gibsons. Meanwhile, route number 1 has more frequent service and stops in the residential neighborhood of Bay Area/Georgia View south of Gibsons Landing. **Table 2.2** below summarizes the bus routes service frequencies.

Table 2.2: Existing Transit Service Frequency

ROUTE		STOP	WEEKDAY SERVICE SPAN		HEADWAY (MIN.)				
#	DIRECTION		START	END	AM	MID-DAY	PM	EVENING	WEEKEND
1	Eastbound	Gibsons at Pratt	5:38am	11:59am	53-85	40, 77	59-81	42-93	120-145
90	Eastbound	Gibsons at Pratt	5:48am	9:56pm	25-50	42-50	11-55	26-58	43-145
1	Westbound	Pratt at Gibsons	6:44am	12:54am	41-89	34-81	40-101	40-100	134-140
90	Westbound	Gibsons at Pratt	6:19am	10:37pm	25-42	43-48	17-48	52-63	33-151

2.2.3 Coast Car Co-op

Coast Car Co-op currently has three co-op vehicles located in Gibsons (highlighted on **Exhibit 2.3**). Two co-op vehicles are located at Sunnycrest Mall (an approximate 5-minute walk), and one vehicle is located at the Sunshine Coast Museum.

Being within a proximate walking distance to the two car-share vehicles would allow future residents of 1057 Gibsons Way to make use of these vehicles if they were a co-op member and reduce their need to own a personal vehicle. Future residents would be able to use the co-op as either their only or second vehicle.

2.2.4 Cycling & Pedestrian Networks

The pedestrian and cycling facilities in the Town of Gibsons are presented in **Exhibit 2.4**.

Sidewalks are present on both sides of Gibsons Way, including the north frontage of the site. The intersection of Gibsons Way and Pratt Road/Payne Road is signalized with marked crosswalks at all four legs of the intersection. Sidewalks are also provided on the east side of Payne Road and Pratt Road. There are marked crosswalks at all intersections along Gibsons Way within 800m to the site.

There is a separated bike lane on both sides of Gibsons Way from the intersection with Pratt Road/Payne Road to the intersection with School Road. In 2018 and 2021, additional cycling facilities were constructed

along School Road, from its interaction with Gibsons Way and North Road eastward to the Lower Gibson Area. Cycling facilities were also constructed/improved along North Road, School Road and other side streets of Gibsons Way.

The other cycling facilities in Gibsons mostly comprised of shared-use road spaces and segments of painted bicycle lanes and shoulders at various locations. As expressed in the OCP, the Town is working towards providing a well-connected cycling network to develop a bike-friendly environment and culture.

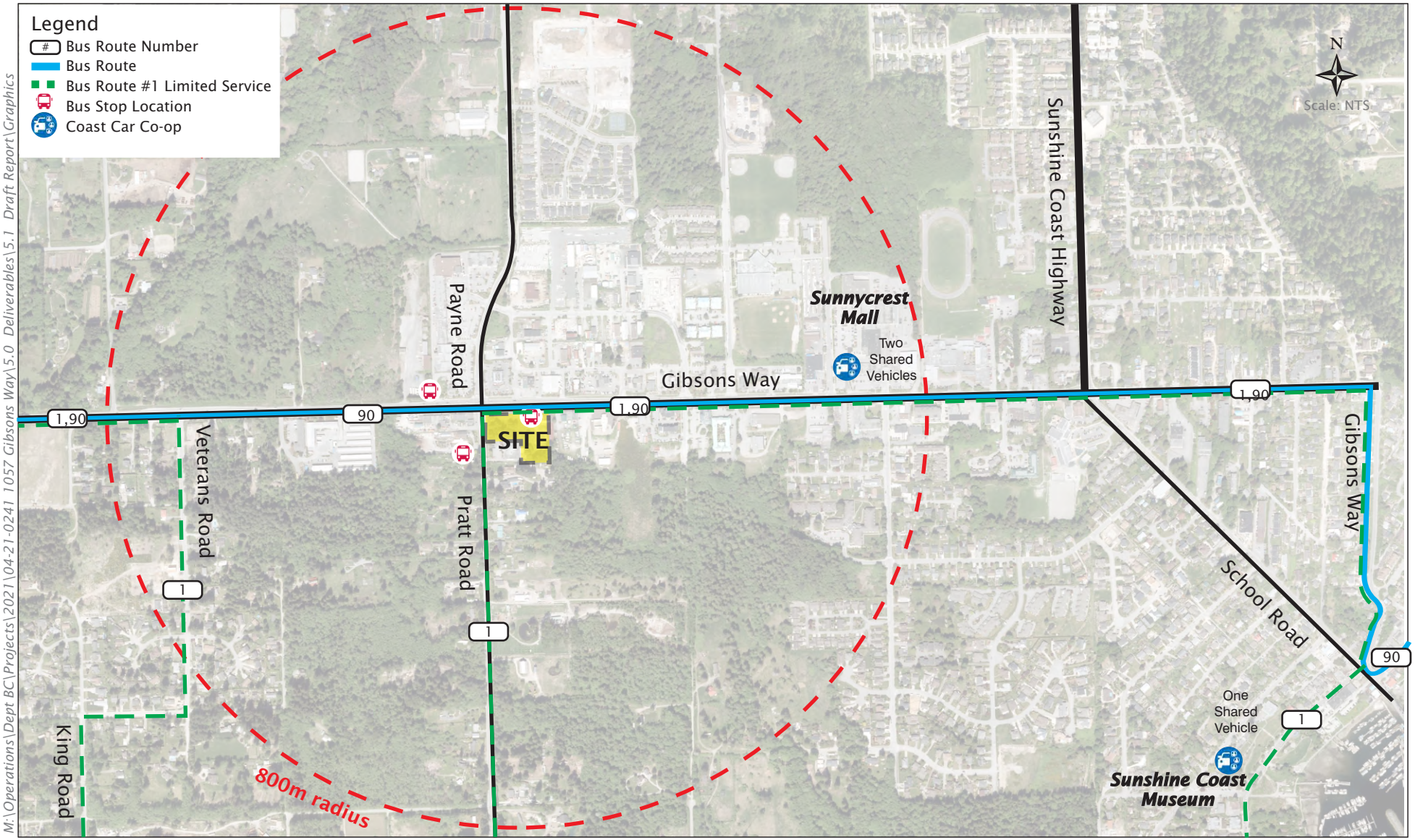

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Exhibit 2.3

Bus Routes, Stops and Car Share Locations

1057 Gibsons Way TIA
May 2023

04-21-0241

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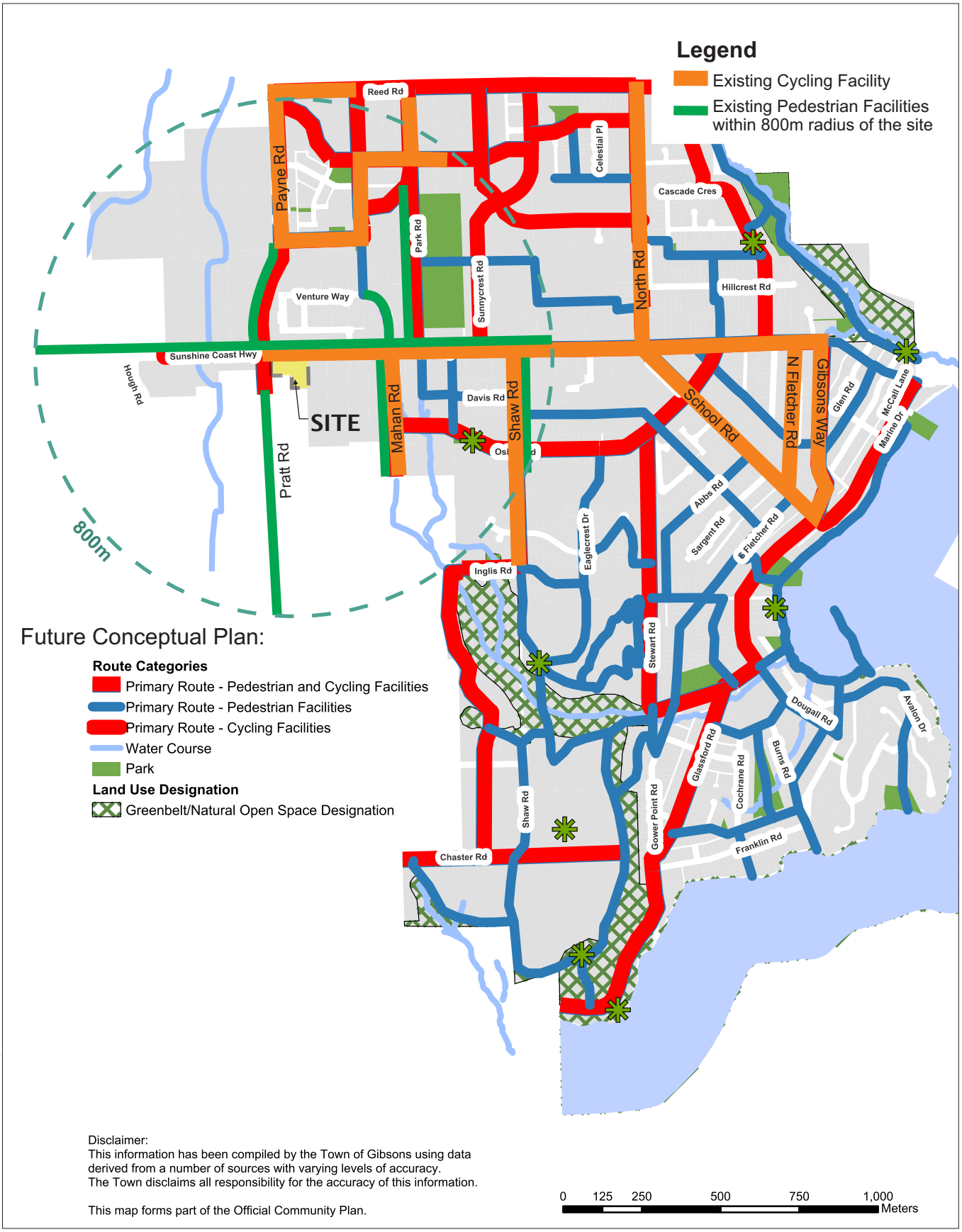

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Exhibit 2.4

Pedestrian and Cycling Facilities

(Edited Image of the Trail and Cycle Network Map from the Town of Gibsons OCP, August 2016)

2.3 Current Relevant Policies & Plans

The Town's Official Community Plan published in March 2015 mentioned policies and objects relevant to the site that support the reduction of the community's dependence on automobiles and the promotion of sustainable modes of transport. The following are the specific excerpts:

- *"Transportation facilities within the Upper Gibsons Neighbourhood shall strive to minimize auto dependency through the promotion of cycling and pedestrian facilities. In developing a transportation servicing plan specific to this neighbourhood, the aim of promoting alternative modes of transportation while addressing internal vehicle circulation and external access was maintained"*;
- *"Support development of initiatives which reduce the community's dependence on automobile travel, including public transit, development of comprehensive bike routes, passenger ferry services, and park and ride facilities."*

Moreover, the town released their Strategic Plan 2013 – 2014, where Strategic Objective III outlines plans to construct key bicycle networks, which includes provisions for Gibsons Way and the roads connecting to lower Gibsons area and Gibsons Landing. The plan shows Gibson Way as a primary pedestrian and cycling route. Exhibit 2.2 shows the cycling facilities already constructed per this plan and the OCP, as well as the conceptual plan for future cycling routes.

2.4 Existing Traffic Volumes

2.4.1 Traffic Data Collection

Traffic count data for Pratt Road/Payne Road/Gibsons Way intersection were obtained from The Ministry of Transportation and Infrastructure (MoTI). The available dataset is from 12 midnight of March 26th 2019 (Tuesday) to 9:45AM of April 4th 2019 (Thursday). The through traffic along Gibsons Way and Pratt Road, at the locations of the future development accesses, were estimated using this MoTI dataset. The overall weekday AM and PM peak periods, at the Pratt Road/Payne Road & Gibsons Way intersection and the two future accesses, are determined to fall within the intervals of 7:00AM to 8:00AM and 3:45PM to 4:45PM. **Table 2.3** summarizes the peak hours of the traffic data.

Table 2.3: Summary of Available Traffic Data

INTERSECTION/LOCATION	SOURCE	DATE OF COUNT	PEAK HOURS	
			AM	PM
Pratt Road/Payne Road/Gibsons Way	MoTI	March 26th 2019 to April 4th 2019	7:00AM to 8:00AM	3:45PM to 4:45PM
Pratt Road @ proposed west access	MoTI	March 26th 2019 to April 4th 2019	7:00AM to 8:00AM	3:45PM to 4:45PM
Gibsons Way @ proposed north access	MoTI	March 26th 2019 to April 4th 2019	7:00AM to 8:00AM	3:30PM to 4:30PM
		OVERALL STUDY AREA PEAK HOUR	7:00AM TO 8:00AM	3:45PM TO 4:45PM

2.4.2 Peak Hour Traffic Volumes

Weekday traffic count data from 600-900 and 1500-1800 were extrapolated from the 8-days of MoTI data. As the MoTI vehicle volume data is presented per lane, and not counted through the detector loops installed per approach lane, volumes at shared lanes are not separated into their respective turning movements. The turning movement counts through the shared lanes are estimated using the traffic volume proportions from a 2018 traffic count survey that Bunt conducted in the area for the Gibsons Park Plaza project.

The 2023 existing AM and PM peak hour traffic volumes are calculated using 2% linear yearly growth rate from the 2019 peak hour data. These volumes are shown in **Exhibit 2.5**.

2.4.3 Signal Timing Data

The signal timing data for signalized intersections in the study area were obtained from the MoTI. This data was used to define the signal controller parameters for traffic modeling purposes.

The traffic controllers operate the same signal timing plans for both the AM & PM peaks, and there is no co-ordination of signals within the study area along the Sunshine Coast Highway (Gibson Way).

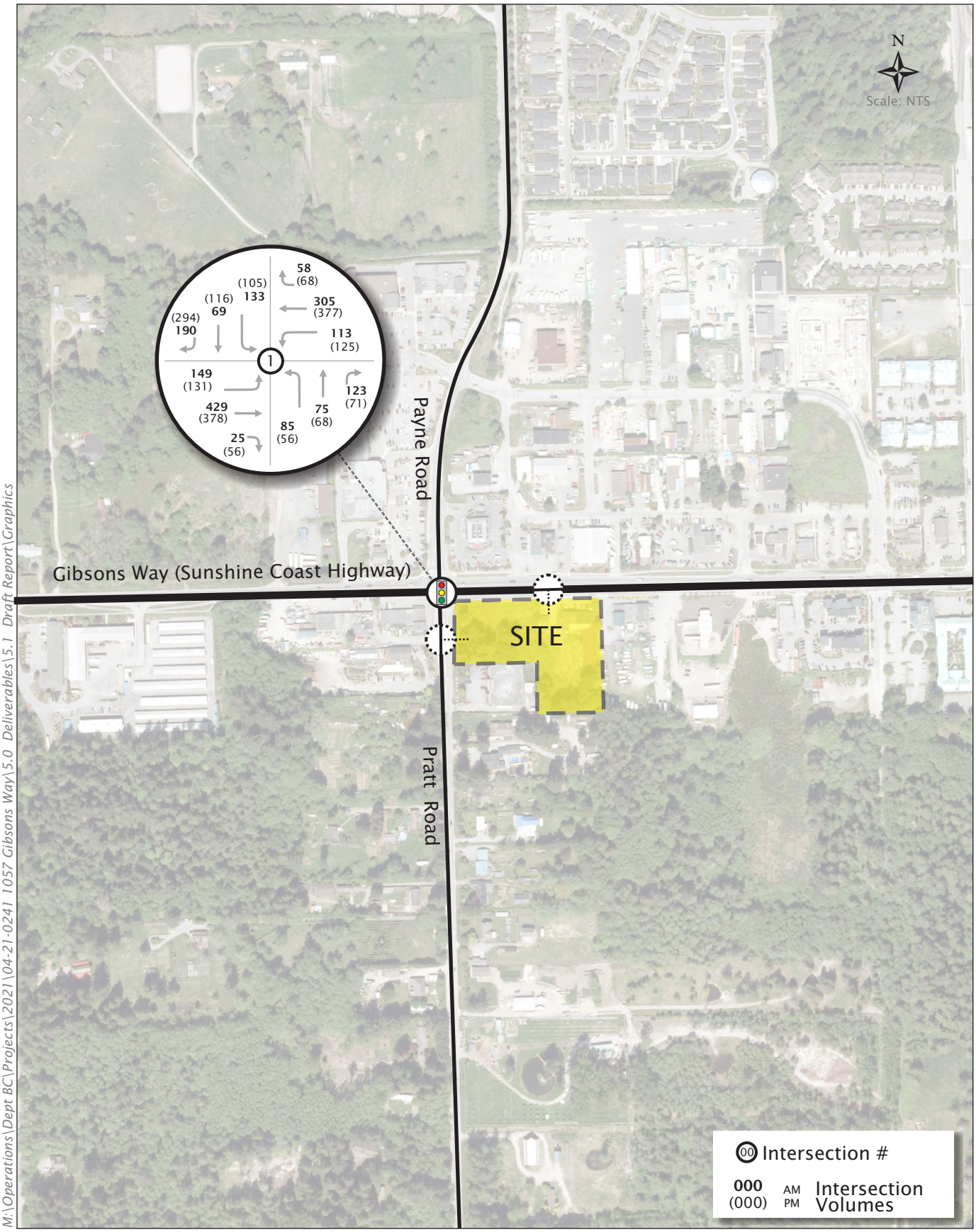

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Exhibit 2.5

2023 Existing Traffic Volumes AM (PM) Peak Hour

1057 Gibsons Way TIA
04-21-0241 March 2023

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2.5 Existing Operations

2.5.1 Performance Thresholds

The existing operations of study area intersections and access points were assessed using the methods outlined in the 6th Edition Highway Capacity Manual (HCM), using the Synchro 11 analysis software (Build 01). The traffic operations were assessed using the performance measures of Level of Service (LOS) and volume-to-capacity (V/C) ratio.

The LOS rating is based on average vehicle delay and ranges from "A" to "F" based on the quality of operation at the intersection. LOS "A" represents optimal, minimal delay conditions while a LOS "F" represents an over-capacity condition with considerable congestion and/or delay. Delay is calculated in seconds and is based on the average intersection delay per vehicle.

Table 2.4 below summarizes the LOS thresholds for the six Levels of Service, for both signalized and unsignalized intersections.

Table 2.4: Intersection Level of Service Thresholds

LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)	
	SIGNALIZED	UNSIGNALIZED
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

Source: Highway Capacity Manual

The volume to capacity (V/C) ratio of an intersection represents ratio between the demand volume and the available capacity. A V/C ratio less than 0.85 indicates that there is sufficient capacity to accommodate demands and generally represents reasonable traffic conditions in suburban settings. A V/C value between 0.85 and 0.95 indicates an intersection is approaching practical capacity; a V/C ratio over 0.95 indicates that traffic demands are close to exceeding the available capacity, resulting in saturated conditions. A V/C ratio over 1.0 indicates a very congested intersection where drivers may have to wait through several signal cycles. In downtown and Town Centre contexts, during peak demand periods, V/C ratios over 0.90 and even 1.0 are common.

The performance thresholds that were used to trigger consideration of roadway or traffic control improvements to support roadway or traffic control improvements employed in this study are listed below:

Signalized Intersections:

- Overall intersection Level of Service = LOS D or better;
- Overall intersection V/C ratio = 0.85 or less;

- Individual movement Level of Service = LOS E or better; and,
- Individual movement V/C ratio = 0.90 or less.

Unsignalized Intersections and Roundabouts:

- Individual movement Level of Service = LOS E or better, unless the volume is very low in which case LOS F is acceptable.

In interpreting of the analysis results, note that the HCM methodology reports performance differently for various types of intersection traffic control. In this report, the performance reporting convention is as follows: For signalized intersections: HCM 2000 output for overall LOS and V/C as well as individual movement LOS and V/C is reported. 95th Percentile Queues are reported as estimated by Synchro;

- For signalized intersections: HCM 2000 output for overall LOS and V/C as well as individual movement LOS and V/C is reported. The 95th Percentile Queues are reported as estimated by Synchro or SimTraffic, the micro-simulation module of the Synchro software;

- For unsignalized two-way stop controlled intersections: HCM 2000 LOS and V/C output is reported just for individual lanes as the HCM methodology does not report overall performance;

- For unsignalized All-way Stop controlled intersections: HCM 2000 unsignalized LOS is reported for the overall intersection as well as by intersection approach LOS. The HCM 2000 methodology does not report an overall V/C ratio for All Way Stop controlled intersections. Degree of Utilization calculated with the HCM 2000 methodology is reported for individual movements in place of V/C, which is not part of the HCM 2000 report;

The performance reporting conventions noted above have been consistently applied throughout this document and the detailed outputs are provided in **Appendix A**.

2.5.2 Existing Conditions Analysis Assumptions

The following are details of the parameters used in the analyses:

- An existing signal timing plan was obtained from MoTI and is used in the existing condition analysis;
- Other default Synchro settings, including the peak hour factor (PHF), were used.
- As heavy vehicle data are not available, heavy vehicle percentage (HV%) of 3% is used for the eastbound and westbound through movements, being along the truck route, and 2% for the rest of the study area roadway.

2.5.3 Existing Operational Analysis Results

Table 2.5 summarises the operational analysis for existing traffic conditions in the study area.

Table 2.5: Existing AM and PM Peak Traffic Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
Pratt Road/Payne Road & Gibsons Way *(Signalized Intersection)*	*OVERALL*	*B*	-		*B*	-	
	EBL	B	0.36	20	B	0.32	15
	EBTR	B	0.71	95	B	0.64	75
	WBL	B	0.32	15	B	0.29	15
	WBTR	B	0.59	70	B	0.67	80
	NBTL	B	0.37	40	B	0.30	30
	NBR	B	0.31	10	B	0.18	5
	SBL	C	0.45	35	C	0.32	25
	SBT	B	0.14	20	B	0.24	30
	SBR	B	0.47	15	C	0.74	20

The analysis indicates that the existing conditions currently meet acceptable thresholds for Level of Service, V/C ratio and queue length.

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3. FUTURE TRAFFIC CONDITIONS

3.1 Traffic Forecasts

The future horizon year scenarios that will be examined in the traffic analysis are as follows:

- Opening Day Horizon (2025) Background Traffic
- Opening Day (2025) Total Traffic
- Opening Day Horizon + 10 Years (2035) Background Traffic
- Opening Day + 10 Years (2035) Total Traffic

3.1.1 Propose Future Access Intersections Layout

The Ministry is limiting access points to/from controlled access highways such as Sunshine Coast Highway. The development, however, deems that a driveway on the highway is considered essential for the success of the future businesses as it would facilitate efficient access to the commercial units and commercial parking located on the north side of the proposed development. Moreover, the majority of the population is located to the east of the site thus an access directly on Gibsons Way is advantageous rather than on the Payne Road which would require two left turn movements rather than a direct in, one left turn movement from Gibsons Way. Importantly Gibsons Way has a centre median lane that can be used for the left-in movement which is shown to operate well within capacity without impacting other vehicle movements or storage requirements at adjacent intersections.

The development is proposing access on Gibsons Way to allow westbound and eastbound vehicles to turn into the site. However, exiting vehicles will only be allowed a northbound right-turn movement to minimize conflict with the through traffic along Gibsons Way. **Exhibit 3.1** illustrates the future road network laning.

3.1.2 Background Traffic Forecasts

Background traffic is traffic that would be present on the road network if the site did not redevelop. Given that the existing two 2-storey building on site generates significantly fewer trips relative to the proposed development, the existing site trips are not removed from the existing/background traffic.

Existing traffic volumes were grown by 2% per year for two years to arrive at the expected background traffic conditions for 2025 (Full Build-Out), and by twelve years to represent the 2035 (Opening Day + 10 Years) horizon year background traffic conditions. **Exhibits 3.2** and **3.3** show the forecasted background peak traffic volumes for the 2025 and 2035 study years, respectively.

Bunt notes that the 2% applied growth rate is higher than rates used for other studies in BC. While the applied growth rate is higher than anticipated and currently used in other MoTI areas such as Vancouver Island, it is considered appropriate as it provides a conservative measure and may also be interpreted as an approximate 2% growth rate over 15 years. A 2% growth rate is more in line with current growth patterns observed in BC. Importantly, residual impacts of the COVID-19 pandemic have been noted.

Specifically, higher rates of work from home office work have resulted in peak period traffic volumes being lower than pre-pandemic levels. While this volume reduction has begun to return to pre-pandemic volumes, some degree of work from home is anticipated to be a lasting legacy of the pandemic.

3.1.3 Site Generated Traffic

Trip Generation

The vehicle trip generation calculation for the proposed development utilizes the trip rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, for the general urban/suburban context. The rates applicable to the current development statistics are summarized in **Table 3.1.** The anticipated future site generated vehicle trips for the proposed development based on the said rates are presented **Table 3.2**

Table 3.1: Peak Hour Vehicle Trip Rates

LAND USE	DENSITY	AM PEAK HOUR			PM PEAK HOUR		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Residential Medium Rise (ITE 221)	146 DU[1]	0.09	0.27	0.36	0.27	0.17	0.44
Commercial Retail (ITE 820)	9,081 sq.ft.	0.58	0.36	0.94	1.83	1.98	3.81

[1] including the 5 Live/Work Units

Table 3.2: Estimated Peak Hour Site Vehicle Trips

LAND USE	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Residential Medium Rise	14	39	53	39	25	64
Commercial Retail	5	3	9	17	18	35
TOTAL	19	42	61	56	43	99

The site is estimated to generate approximately 61 and 99 vehicles during the weekday AM and PM peak hours, respectively.

Trip Distribution & Assignment

Trips generated by the proposed development were assigned to the study area based largely on existing travel patterns observed for the area.

Table 3.3: Estimated Trip Distribution

ORGIN/DESTINATION	AM PEAK HOUR		PM PEAK HOUR	
	IN (%)	OUT (%)	IN (%)	OUT (%)
Gibsons Way (East)	25%	30%	30%	25%
Gibsons Way (West)	35%	30%	35%	30%
Payne Road	20%	20%	25%	20%
Pratt Road	20%	20%	10%	25%
TOTAL	100%	100%	100%	100%

3.1.4 Total Traffic

Total traffic consists of the future background traffic volumes plus the proposed development's site-generated traffic volumes. **Exhibit 3.4** presents the forecasted future traffic volumes for the Opening Day (2025) Total Traffic scenario (AM & PM), while **Exhibit 3.5** highlights the forecasted future traffic volumes for the Opening Day + 10 Years (2035) Total Traffic scenario (AM & PM).

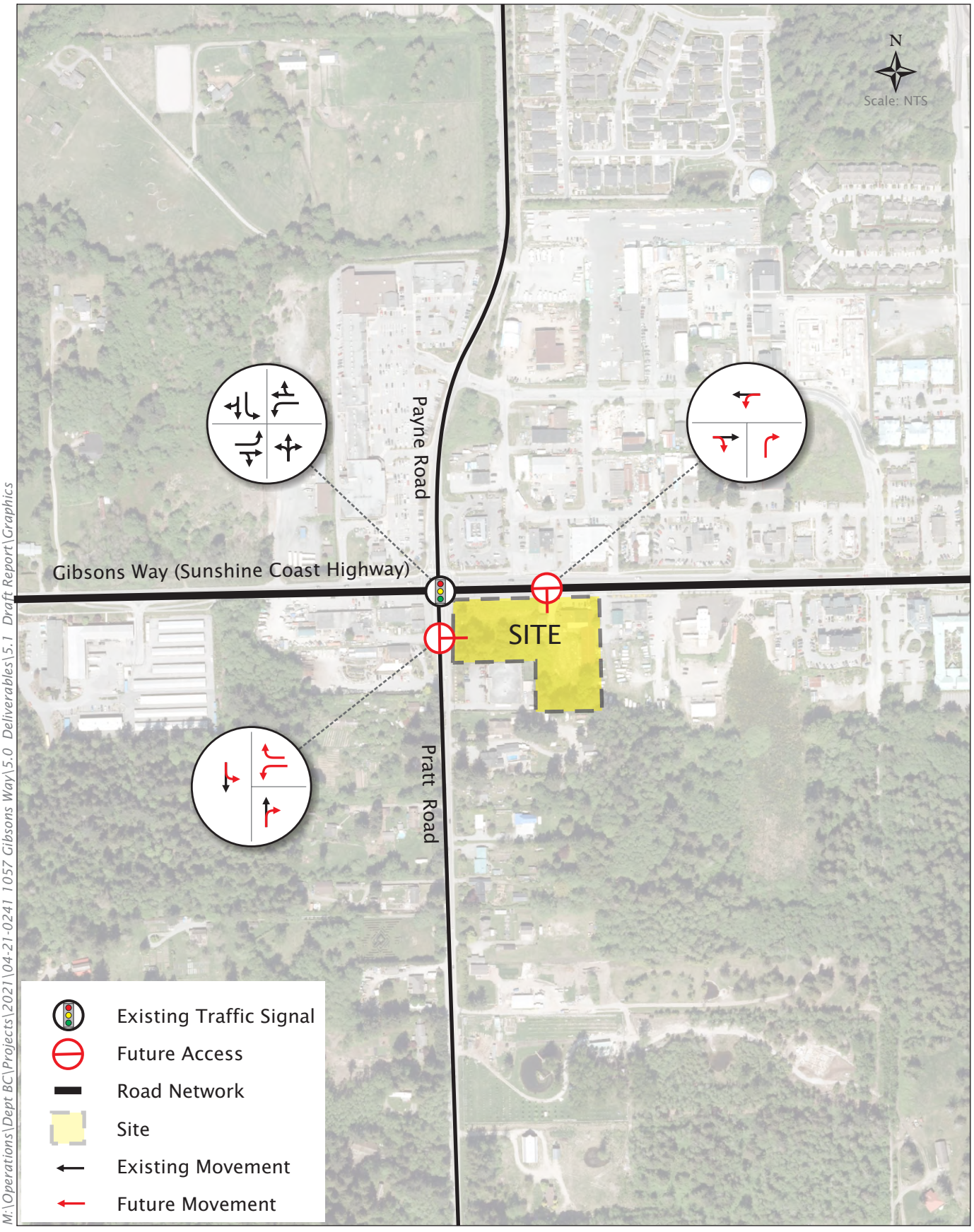

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Exhibit 3.1

Future Road Network Laning

1057 Gibsons Way TIA
04-21-0241 May 2023

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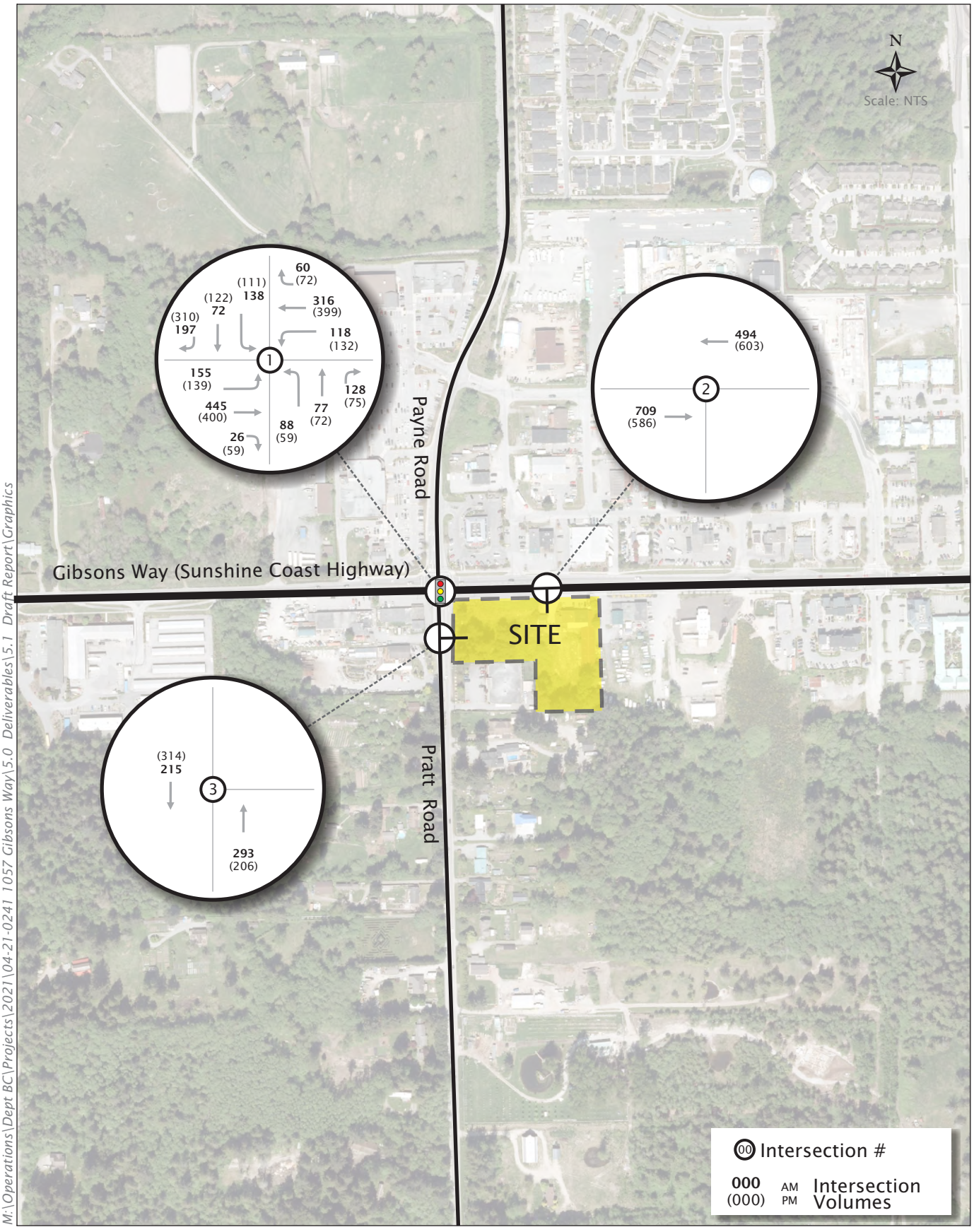

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Exhibit 3.2

2025 Background Traffic Volumes AM (PM) Peak Hour

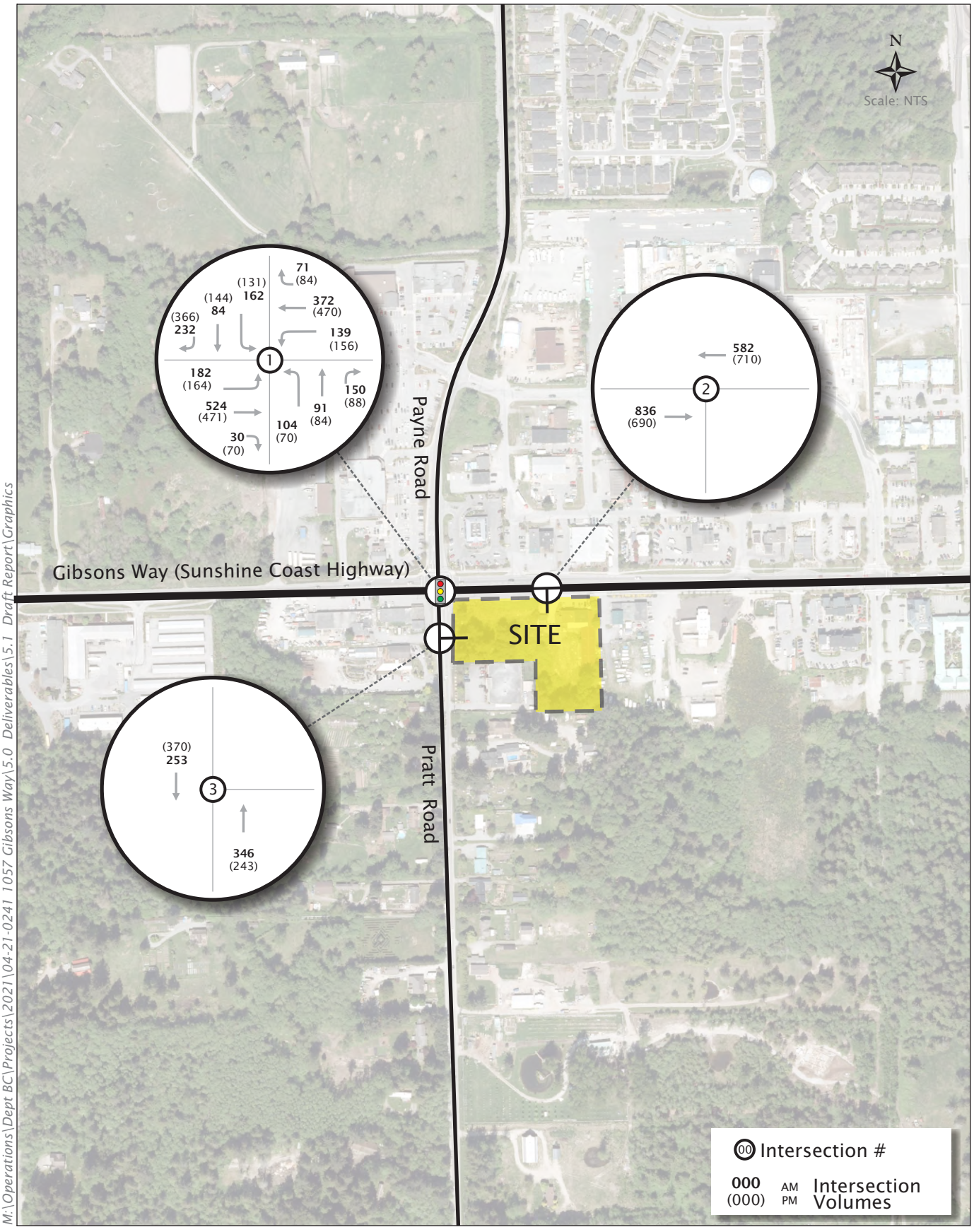

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Exhibit 3.3

2035 Background Traffic Volumes AM (PM) Peak Hour

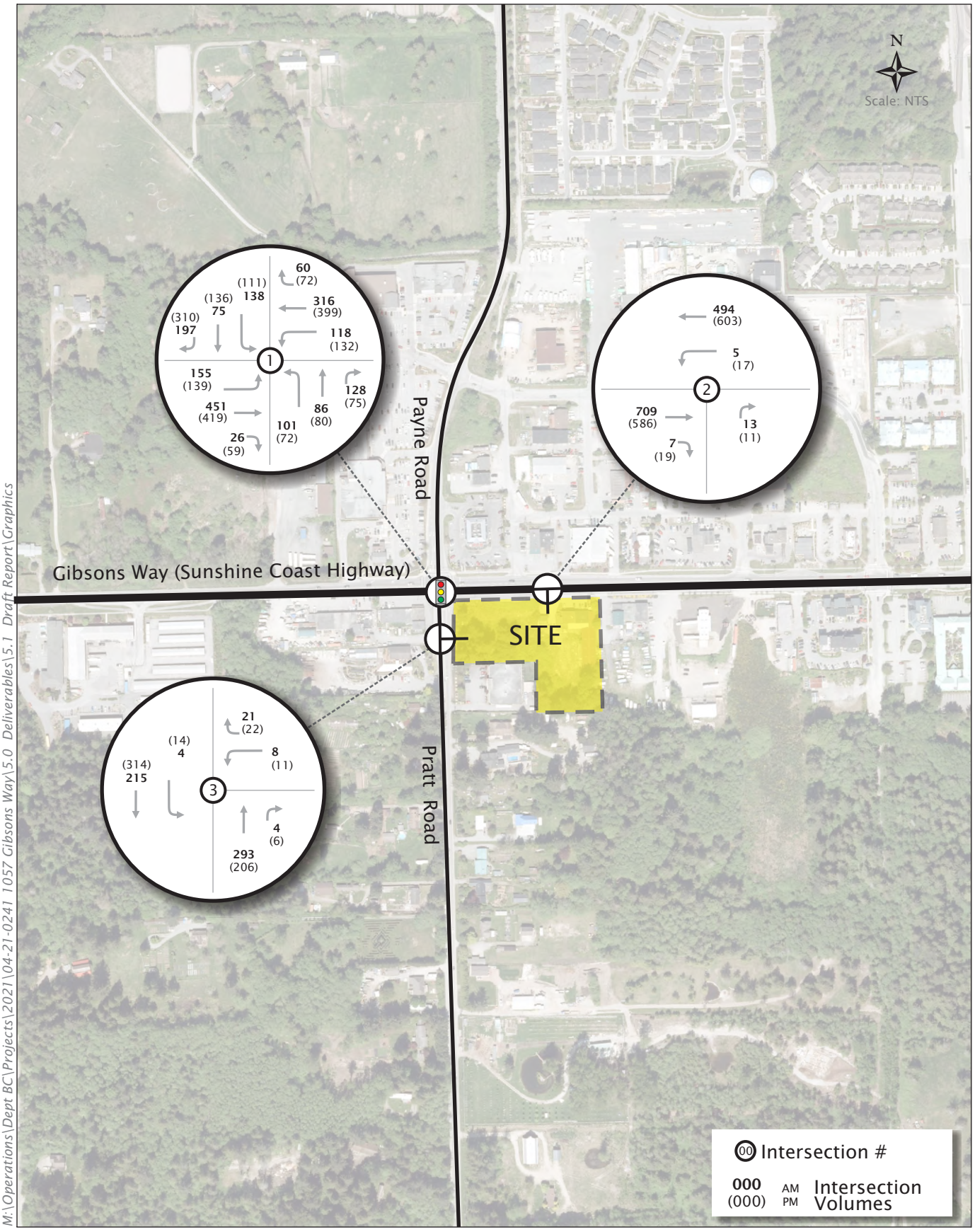

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Exhibit 3.4

2025 Total Traffic Volumes AM (PM) Peak Hour

1057 Gibsons Way TIA
04-21-0241 August 2023

bunt & associates

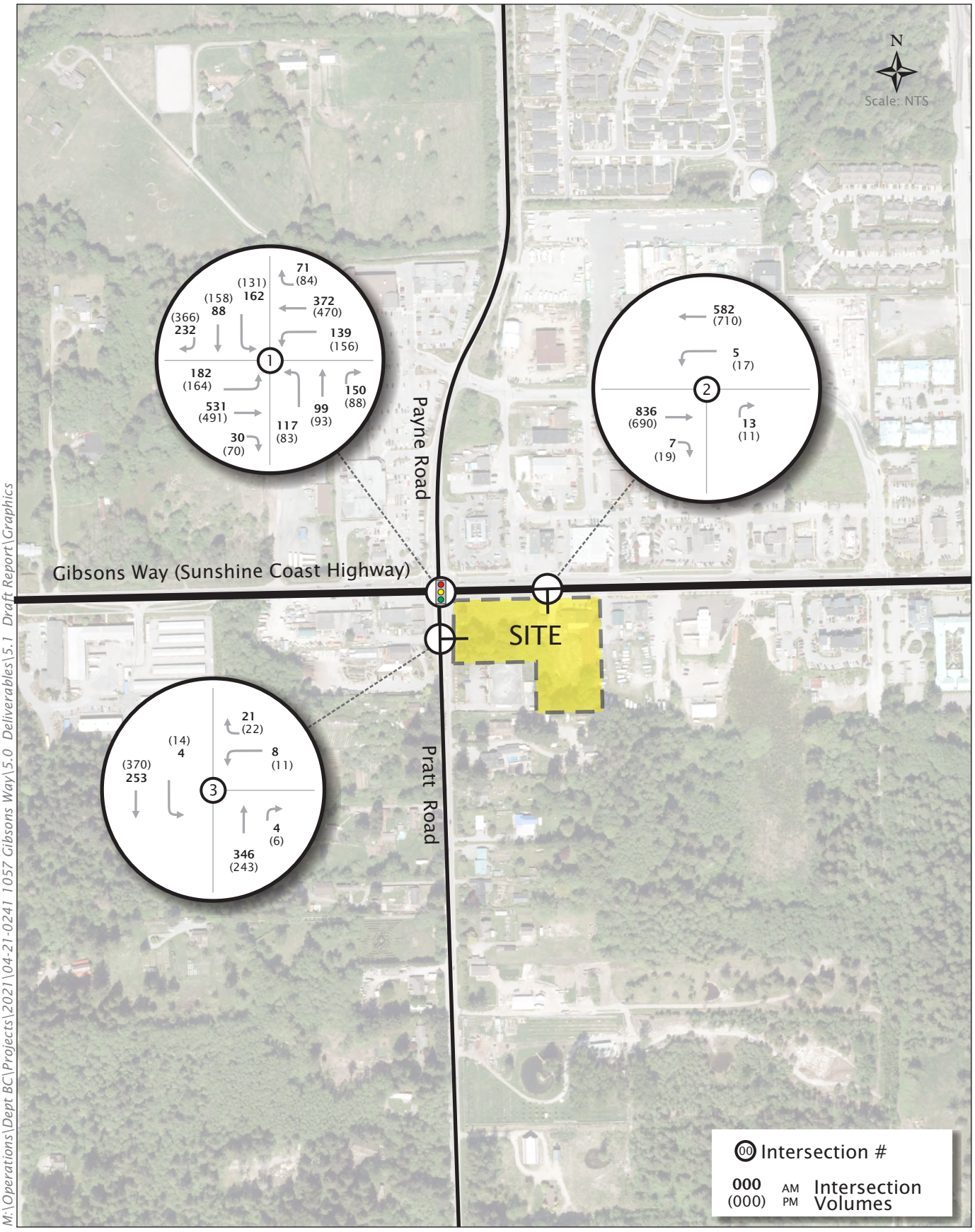

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Exhibit 3.5

2035 Total Traffic Volumes AM (PM) Peak Hour

1057 Gibsons Way TIA
04-21-0241 August 2022

bunt & associates

3.2 Future Traffic Operations

3.2.1 Future Conditions Analysis Assumptions

Peak hour factor (PHF) inputs are from existing count data and typical best practice. In the absence of heavy vehicle percentage (HV%) data, 3% is used for movements along Gibsons Way which is a truck route and 2% for the rest of the vehicle movements.

3.2.2 Future Background Traffic Operations

Tables 3.4 and **3.5** summarize the AM and PM peak hour traffic operations results for Opening Day Horizon (2025) Background Traffic, and, Opening Day Horizon + 10 Years (2035) Background Traffic scenarios.

Table 3.4: Opening Day Background Vehicle Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
Pratt Road/Payne Road & Gibsons Way *(Signalized Intersection)*	*OVERALL*	*B*	-		*B*	-	
	EBL	B	0.38	20	B	0.35	15
	EBTR	B	0.73	100	B	0.66	80
	WBL	B	0.34	15	B	0.32	15
	WBTR	B	0.61	75	B	0.69	85
	NBTL	B	0.38	40	B	0.32	35
	NBR	B	0.31	10	B	0.19	10
	SBL	C	0.48	40	C	0.35	30
	SBT	B	0.15	20	B	0.25	30
	SBR	C	0.47	15	C	0.76	20

The analysis indicates that all movements at the study intersection during the opening day background AM and PM peak hour scenarios are anticipated to meet acceptable thresholds for Level of Service, V/C ratio and queue length.

Table 3.5: Opening Day + 10 Years Background Vehicle Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
Pratt Road/Payne Road & Gibsons Way *(Signalized Intersection)*	*OVERALL*	*C*	-		*C*	-	
	EBL	B	0.53	25	B	0.52	20
	EBTR	C	0.86	130	C	0.78	115
	WBL	B	0.52	20	B	0.47	20

	WBTR	C	0.74	95	C	0.81	120
	NBTL	C	0.45	50	C	0.40	40
	NBR	C	0.33	15	C	0.20	10
	SBL	D	0.63	45	C	0.47	35
	SBT	B	0.16	25	C	0.28	35
	SBR	C	0.51	15	D	0.83	20

The analysis indicates that all movements at the study intersection during the Opening Day + 10 Years Background scenarios are anticipated to meet acceptable thresholds for Level of Service, V/C ratio and queue length.

3.2.3 Future Total Traffic Operations

Tables 3.6 and **3.7** summarize the AM and PM peak hour traffic operations results for Opening Day Horizon (2025) Total Traffic, and, Opening Day Horizon + 10 Years (2035) Total Traffic scenarios. Also included in the analysis are the 2 accesses of the proposed development. The results from the Total scenario were compared with the Background operations (i.e., without the proposed development) to assess the anticipated net impact of the proposed development.

Table 3.6: Opening Day Total Vehicle Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
Pratt Road/Payne Road & Gibsons Way *(Signalized Intersection)*	*OVERALL*	*B*	-		*B*	-	
	EBL	B	0.40	20	B	0.36	15
	EBTR	C	0.74	105	B	0.69	90
	WBL	B	0.36	15	B	0.34	15
	WBTR	B	0.63	75	B	0.70	90
	NBTL	C	0.42	50	C	0.38	40
	NBR	B	0.30	10	B	0.18	10
	SBL	C	0.49	40	C	0.38	30
	SBT	B	0.14	20	B	0.27	35
	SBR	C	0.45	15	C	0.73	20
North Access & Gibsons Way *(Unsignalize Intersection)*	NBR	C	0.04	0	B	0.03	0
	WBL	A	0.01	0	A	0.02	0
Pratt Road & West Access *(Unsignalize Intersection)*	WBLR	B	0.05	0	B	0.06	0
	SBTL	A	0.00	0	A	0.01	0

The analysis indicates that all movements at the study intersection and at the two future accesses during the opening day total scenario are anticipated to meet acceptable thresholds for Level of Service, V/C ratio and queue length.

Table 3.7: Opening Day + 10 Years Total Vehicle Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
Pratt Road/Payne Road & Gibsons Way *(Signalized Intersection)*	*OVERALL*	*C*	-		*C*	-	
	EBL	B	0.51	25	B	0.51	20
	EBTR	C	0.83	135	C	0.79	120
	WBL	B	0.50	20	B	0.49	20
	WBTR	C	0.71	95	C	0.79	120
	NBTL	C	0.50	55	C	0.45	45
	NBR	C	0.33	15	C	0.19	10
	SBL	D	0.68	50	C	0.50	35
	SBT	B	0.16	25	C	0.29	35
	SBR	C	0.51	15	C	0.79	25
North Access & Gibsons Way *(Unsignalized Intersection)*	NBR	C	0.05	0	B	0.03	0
	WBL	A	0.01	0	A	0.02	0
Pratt Road & West Access *(Unsignalize Intersection)*	WBLR	B	0.06	0	B	0.07	0
	SBTL	A	0.00	0	A	0.01	0

The analysis indicates that the 95th percentile queue of the southbound left-turn movement (50m) is anticipated to exceed the storage lane capacity of 35m during the AM peak hour Opening Day + 10 Years Total scenario. All other movements at the intersections are anticipated to meet acceptable thresholds for Level of Service, V/C ratio and queue length. Importantly this particular vehicle movement is not significantly impacted by the proposed development but rather a product of Gibsons Park Plaza vehicles traveling towards Lower Gibsons.

The above results of Opening Day and Opening Day + 10 Years scenarios indicate that no delay, capacity or queuing issues are anticipated at the site's north access when westbound left-turn movement into the site is permitted.

3.2.4 Summary of Traffic Impacts & Recommended Mitigations

The southbound to eastbound left turn movement of Pratt Road/Payne Road & Gibsons Way has a95th percentile peak hour queue of 50m and 50% percentile peak hour queue of 23.2m. The 95th percentile peak hour queue exceeds the storage lane's capacity of 35m during the AM Opening Day + 10 Years Total scenario. Our analysis indicates this issue can be mitigated by adjusting the signal phasing splits while maintaining the original cycle length. Increasing the total split of the movement's phases by approximately

1.7s would suffice to improve the movements' queue lengths. The resulting signal splits and phases are presented in **Appendix A**.

Table 3.8 summarizes the AM peak hour traffic operations during the Opening Day +10 Years Total scenario with adjusted signal phasing splits.

Table 3.8: Opening Day + 10 Years Total Vehicle Operations with Mitigation

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM		
		LOS	V/C	95TH Q (M)
Pratt Road/Payne Road & Gibsons Way *(Signalized Intersection)*	*OVERALL*	*C*	-	
	EBL	B	0.53	25
	EBTR	C	0.84	**125**
	WBL	C	0.54	20
	WBTR	C	0.72	95
	NBTL	C	0.50	60
	NBR	C	0.32	15
	SBL	D	0.69	**50**
	SBT	C	0.16	25
	SBR	C	0.50	15
North Access & Gibsons Way *(Unsignalize Intersection)*	NBR	C	0.05	0
	WBL	B	0.01	0
Pratt Road & West Access *(Unsignalize Intersection)*	WBLR	B	0.07	0
	SBTL	A	0.00	0

The analysis indicates that adjusting the phase splits would improve the 95th percentile queue of the southbound to eastbound left turn movement, such that queues will be contained within the lane's storage capacity. With the phase splits adjustment, all other movements at the intersections are still anticipated to meet acceptable thresholds for Level of Service, V/C ratio and queue length.

4. SITE PLAN DESIGN REVIEW

This section provides review of the planned supply numbers for the proposed development in the context of the Town's Parking Bylaw requirements.

Policy 12.2.2 of the Town's Official Community Plan states that the Town should support the development of initiatives which reduce the community's dependence on automobile travel. The development is therefore proposing rightsizing of the vehicle parking supply and is putting forward Transportation Demand Management (TDM) measures, presented in the next section, to encourage use of more sustainable forms of transportation.

4.1 Parking Supply

4.1.1 Vehicle Parking

Resident parking will be provided both at the surface and in the underground parkades of the 2 buildings. Note that Building A and B have 1 and 2 levels of underground parking, respectively. Commercial parking will be provided at-grade in front of the commercial and live/work units. **Table 4.1** summarizes the parking requirements per the Town's Zoning Bylaw.

Table 4.1: Vehicle Parking Supply Requirement & Provision

LAND USE	DENSITY	BYLAW RATE	BYLAW REQUIREMENT	PROPOSED SUPPLY	PROPOSED SUPPLY RATIO
Residential	146 units[1]	1.35 stalls per DU (1.5 less than 0.15 for visitor parking)	190	161	1.1
Visitor (Residential)	146 units[1]	0.15 stalls per DU	21	11	0.08
Live-Work (Commercial Component)	559.28 sqm	1 space per 45 sqm	12	19	
Commercial Retail Units	284.38 sqm	1 space per 45 sqm	6		
		TOTAL	234	191	

[1]including the live-work residential units

The proposed residential parking spaces provision of 161 spaces, which equates to a parking ratio of 1.1 spaces/unit, is below the Town's Zoning Bylaw requirement but is higher than the parking demand and vehicle ownership ratios observed from comparable developments. **Table 4.2** summarizes observations from 3 comparable residential developments in Gibsons.

Table 4.2: Gibsons Residential Parking Observations

LOCATION	TENURE	UNITS	OBSERVED PARKING DEMAND (VEHICLES/UNIT) *JULY 2013 - BUNT*	VEHICLE OWNERSHIP (VEHICLES/UNIT) *APRIL 2015 - ICBC*
622 Farham Road	Strata	47	0.53	0.83
689 Park Road	Strata and Rental	48	0.67	0.92
725 Gibsons Way	Rental	37	0.41	0.54

From the above table, the observed parking demand ratios are in the range of 0.4-0.7 vehicles/unit while the vehicle ownership ratios are in the range of 0.5-0.95 vehicles/unit. The parking supply of 1.1 spaces/unit, which is higher than both observed ratios' ranges, is therefore anticipated to be adequate for the proposed development.

The development is proposing to provide 19 commercial parking spaces, 1 space more than the combined Bylaw requirement for Live-Work commercial component and commercial retail units.

Moreover, Bunt has undertaken studies of visitor parking observations at residential buildings throughout British Columbia and has observed the peak visitor parking demand to be in the range of 0.05 to 0.10 vehicles per unit. A visitor parking supply of 0.08 spaces/unit is therefore deemed adequate for this mixed-use development given that there is potential for residential visitors to share the proposed 19 commercial parking spaces. Residential and commercial peak parking demands are generally observed to occur at different times thus a total of 30 spaces are anticipated to be sufficient to serve both uses.

Usage of the shared visitor and commercial parking spaces are recommended to have time a restriction of 2-3 hours to accommodate peak demands and ensure parking space turnovers. This will also avoid residents parking at these stalls.

The Town of Gibson's Zoning Bylaw only specifies accessible parking requirements for commercial, industrial, entertainment, recreation and public assembly uses based on the required spaces for these uses. The Bylaw does not specify any accessible space requirement located within the Upper Gibsons Comprehensive Development Zone. For the 18 total required parking spaces for commercial use, no accessible parking space is required. Nevertheless, the development will provide 5 accessible parking spaces. Two (2) are allocated to visitors and commercial use and will be located at surface level. Meanwhile, three (3) are allocated to residential use where each residential underground parkade level will have 1 accessible parking space.

The Bylaw also allows up to 30% or 57 of the accessory parking spaces to be small car parking spaces. The development is proposing 17 small car parking spaces which is below the allowed threshold.

4.1.2 Bicycle Parking

Well managed, secure, accessible and covered bicycle parking will be provided as part of the development plan. The proposed supply meets the Bylaw requirements for both Class 1 (Long Term parking spaces) and Class 2 (Short Term parking spaces). **Table 4.3** summarizes the Bylaw requirements and the proposed supply.

Table 4.3: Bicycle Parking Supply Requirement & Provision

LAND USE	DENSITY	BYLAW RATE	BYLAW SUPPLY REQUIREMENT	PROVIDED
Residential	141 units	*Class 1* – 1.25 spaces per DU *Class 2* – 0.2 spaces per DU	*Class 1* – 176 spaces *Class 2* – 28 spaces	*Class 1* – 176 spaces *Class 2* – 28 spaces
Live-Work (Residential)	5 units	*Class 1* – 1.25 spaces per DU *Class 2* – 0.2 spaces per DU	*Class 1* – 6 spaces *Class 2* – 1 space	*Class 1* – 6 spaces *Class 2* – 1 space
Live-Work (Commercial)	559.28 sqm	*Class 1* – 0.27 spaces per 100sqm greater than 100sqm GFA *Class 2* – 0.4 spaces per 100sqm greater than 100sqm GFA	*Class 1* – 1 space *Class 2* – 2 spaces	*Class 1* – 1 space *Class 2* – 2 spaces
Commercial Retail Units	284.38 sqm^2	*Class 1* – 0.27 spaces per 100sqm greater than 100sqm GFA *Class 2* – 0.4 spaces per 100sqm greater than 100sqm GFA	*Class 1* – 0 space *Class 2* – 1 space	*Class 1* – 0 spaces *Class 2* – 1 spaces
		TOTAL	*CLASS 1* – 184 SPACES *CLASS 2* – 32 SPACES	*CLASS 1*– 184 SPACES *CLASS 2* – 32 SPACES

The Class 1 bicycle spaces for Live-Work and CRU will be provided within the bike room located in Building A Level 1. Class 1 bicycle spaces will be provided across the 5 bike rooms located within the two buildings. All Class 2 bicycle spaces will be provided in the form of racks located outside near the buildings' entrances.

4.1.3 Loading Vehicle Parking Requirement and Supply

The Town's Zoning Bylaw stipulates that every building accommodating a commercial, industrial or apartment residential use must provide at least one off-street loading space that is conveniently located relative to the building doors. The development is proposing one loading bay to the east of Building A that can be easily accessed by the retail units of the building. Another loading bay will be located to the west of Building B, proximate to the residential lobby/hallway entrances and connected to the live/work units through a pedestrian path. The proposed one loading bay for each Buildings A and B meets the Bylaw requirement.

4.2 Parking Layout & On-Site Vehicle Circulation

Exhibit 4.1 illustrates that the two site accesses and the proposed drive aisles are adequate for two passenger car movements simultaneously passing each other. The exhibit also illustrates that the drive aisles' widths are sufficient for passenger cars to maneuver in and out of the stalls. However, vehicles will go over the curb-return as they go in and out of the Building A Level P1. Provision of bigger radii for the curb-return on both sides of the parkade driveway is recommended to allow concurrent access of

passenger vehicles. Moreover, the aisle near the entrance of Building B Level P1 is narrow at 6.1m. It is recommended that the corner cut be increased to 2.8m to allow two-way access of passenger vehicles at this corner. Provision of convex mirror is also recommended to improve visibility of oncoming vehicles.

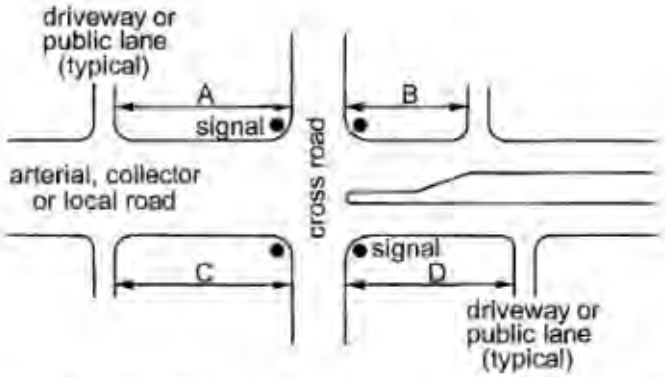
Regular car would have difficulty accessing the 2 end stalls at the north end of Building B Level P1. Changing these stalls to small car stalls is recommended.

Exhibit 4.2 illustrates a single-unit truck (SU9) able to enter/exit the site and access the designated two loading bays. **Exhibit 4.3** illustrates access of garbage collection truck both from Gibsons Way and Pratt Road and its movement to/from the garbage enclosure on the south side of the development. For both scenarios, the truck is shown to make use of the aisle to perform a hammerhead turnaround to exit the site. Garbage truck backing up may conflict with other vehicle movements in the area, impacting internal circulation, however this impact is anticipated to be minimal as garbage collection is generally scheduled during off-peak hours.

Exhibits 4.4 and **4.5** demonstrate a firetruck able to access the site from Gibsons Way and Pratt Road, respectively, and able to maneuver through the drive aisles and exit the site without conflict.

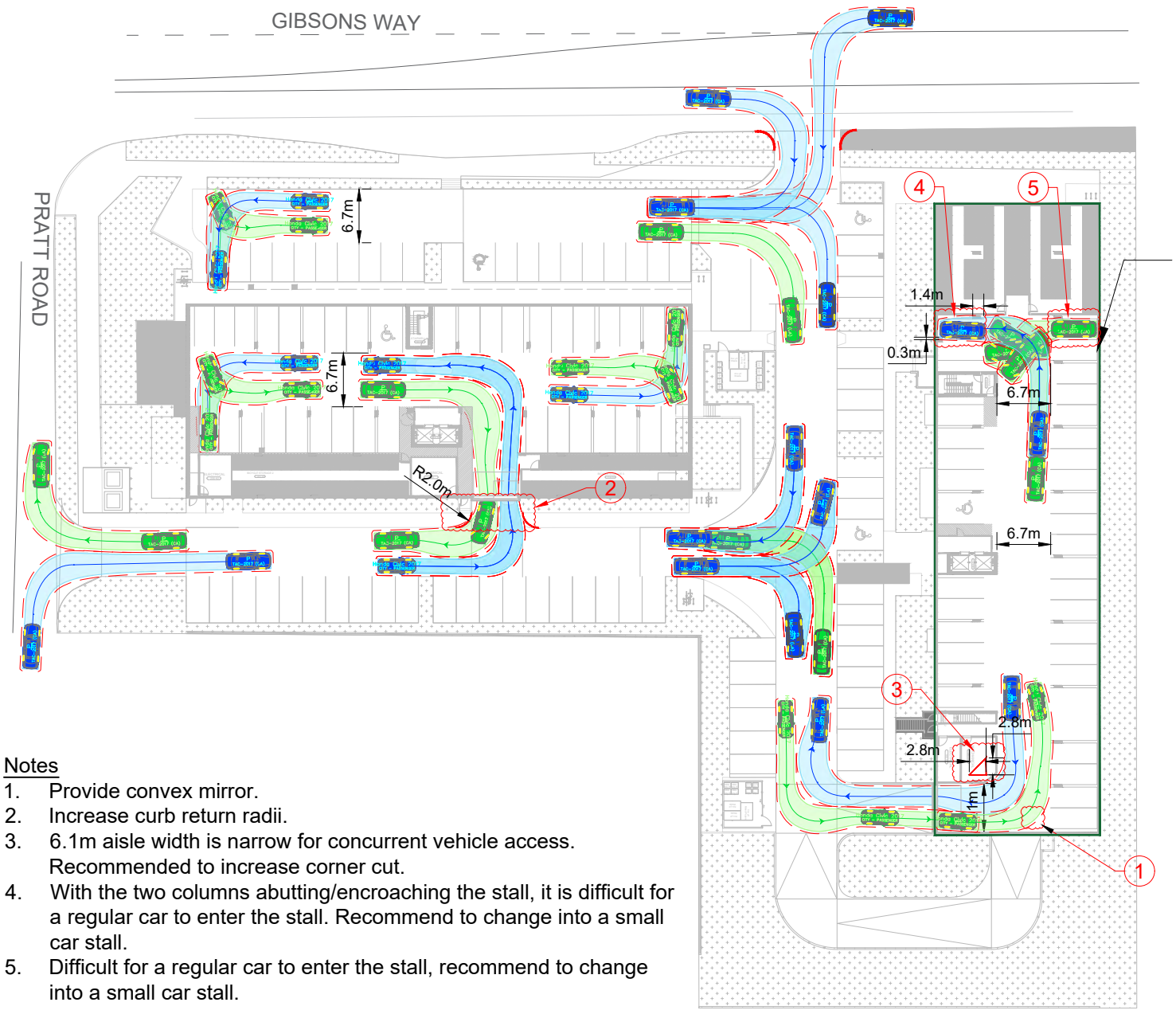
To facilitate smooth turning at the driveway on Gibsons Way, curb-returns with appropriate radii are recommended.

Moreover, the distance of the site's proposed north access to the nearest signalized intersection of Pratt Road and Gibsons Way. which is approximately 90m, meets the 70m TAC minimum required clearance of an access from a signalized intersection as indicated as distance 'A' in **Figure 3.1** below. Figure 3.1: Minimum clearance of a driveway or public lane from a signalized intersection



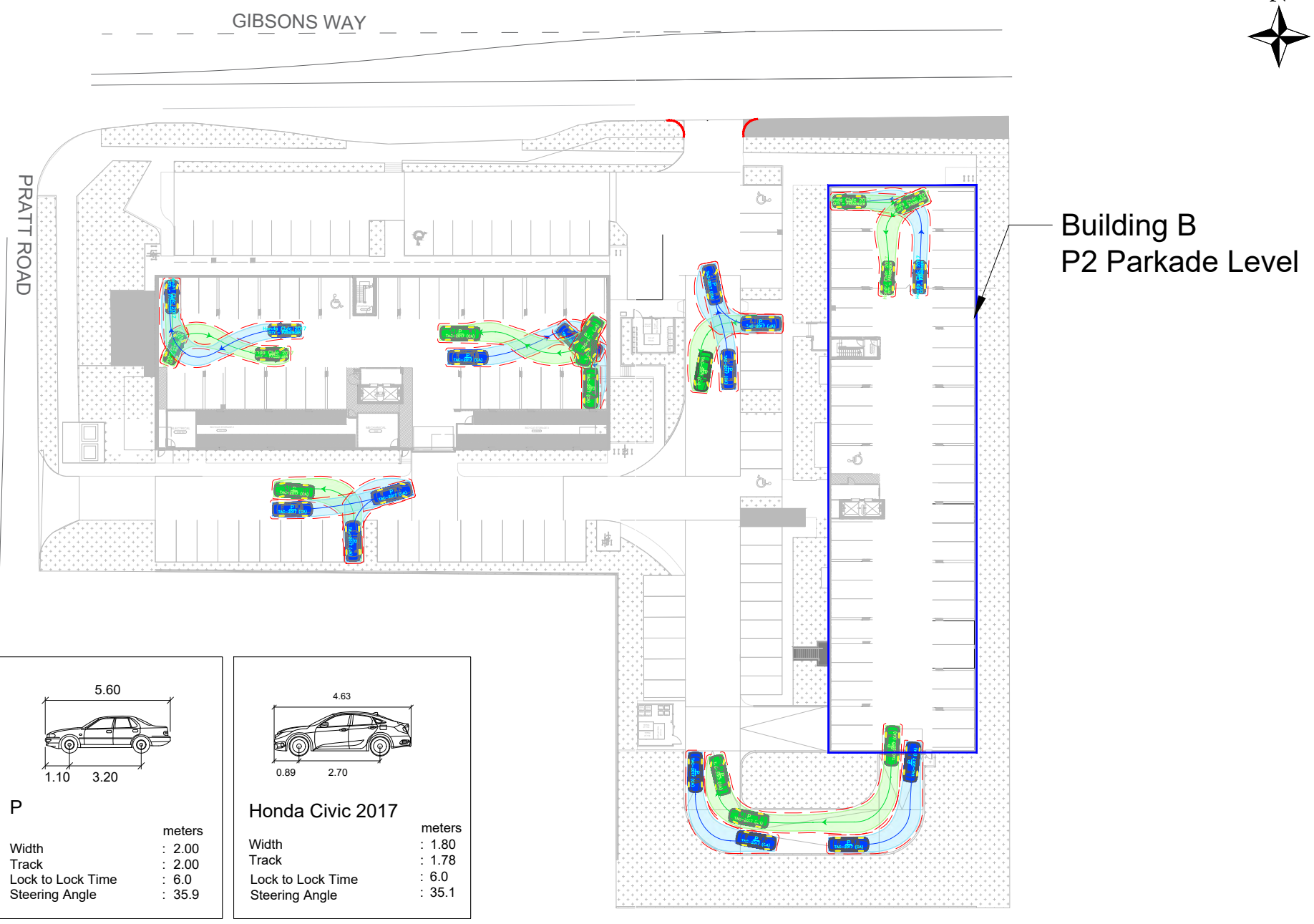
item	min. clearance, m		
	arterial	collector [b]	local [b]
A	70 [c]	55	15
B	# [a]	25	15
C	70	55	15
D	70 [c]	55	15

Notes: a. Distance (#) positions driveway or public lane in advance of the left turn storage length (min.) plus bay taper (des.).
b. Lesser values reflect lower volumes and reduces level of service on collectors and locals.
c. Reduced distances feasible if auxiliary lane implemented, see Section 6.5
d. Values based on operating speed of 50km/h, higher values desirable for higher speeds or may be warranted by traffic conditions.



Notes

1. Provide convex mirror.
2. Increase curb return radii.
3. 6.1m aisle width is narrow for concurrent vehicle access. Recommended to increase corner cut.
4. With the two columns abutting/encroaching the stall, it is difficult for a regular car to enter the stall. Recommend to change into a small car stall.
5. Difficult for a regular car to enter the stall, recommend to change into a small car stall.



P

	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

Honda Civic 2017

	meters
Width	: 1.80
Track	: 1.78
Lock to Lock Time	: 6.0
Steering Angle	: 35.1

[Based on 2106 SITE PLAN - C CAD from PCREGROUP dated August 21, 2023.

[Issued for Discussion; not for Construction]

Exhibit 4.1

Passenger Vehicle Circulation and Stall Parking

1057 Gibsons Way

04-21-0241 August 2023 Scale 1:750 on Ledger Prepared by AS

bunt & associates

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Notes
1. Provide curb-returns with appropriate radii.

N

SU9
ALBERTA INFTRA-HGDG 1999 (CA)

1

7.6m

BICYCLE STORAGE 3

9.10

1.20 6.10

SU9

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	: 6.0
Steering Angle	: 31.5

[Based on 2106 SITE PLAN - C CAD from PCREGROUP dated August 21, 2023.

[Issued for Discussion; not for Construction]

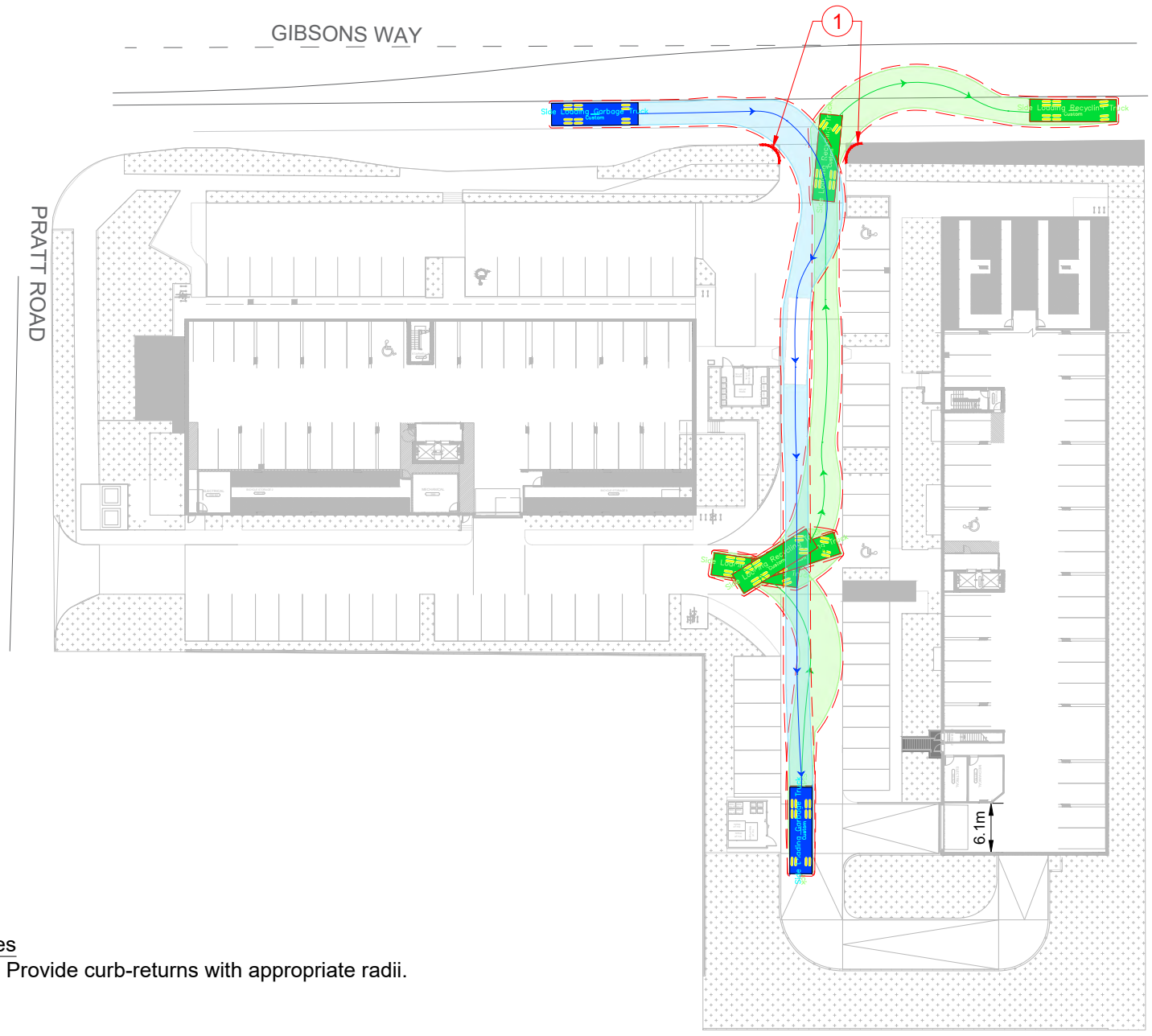
Exhibit 4.2

Loading Vehicles Swept Paths

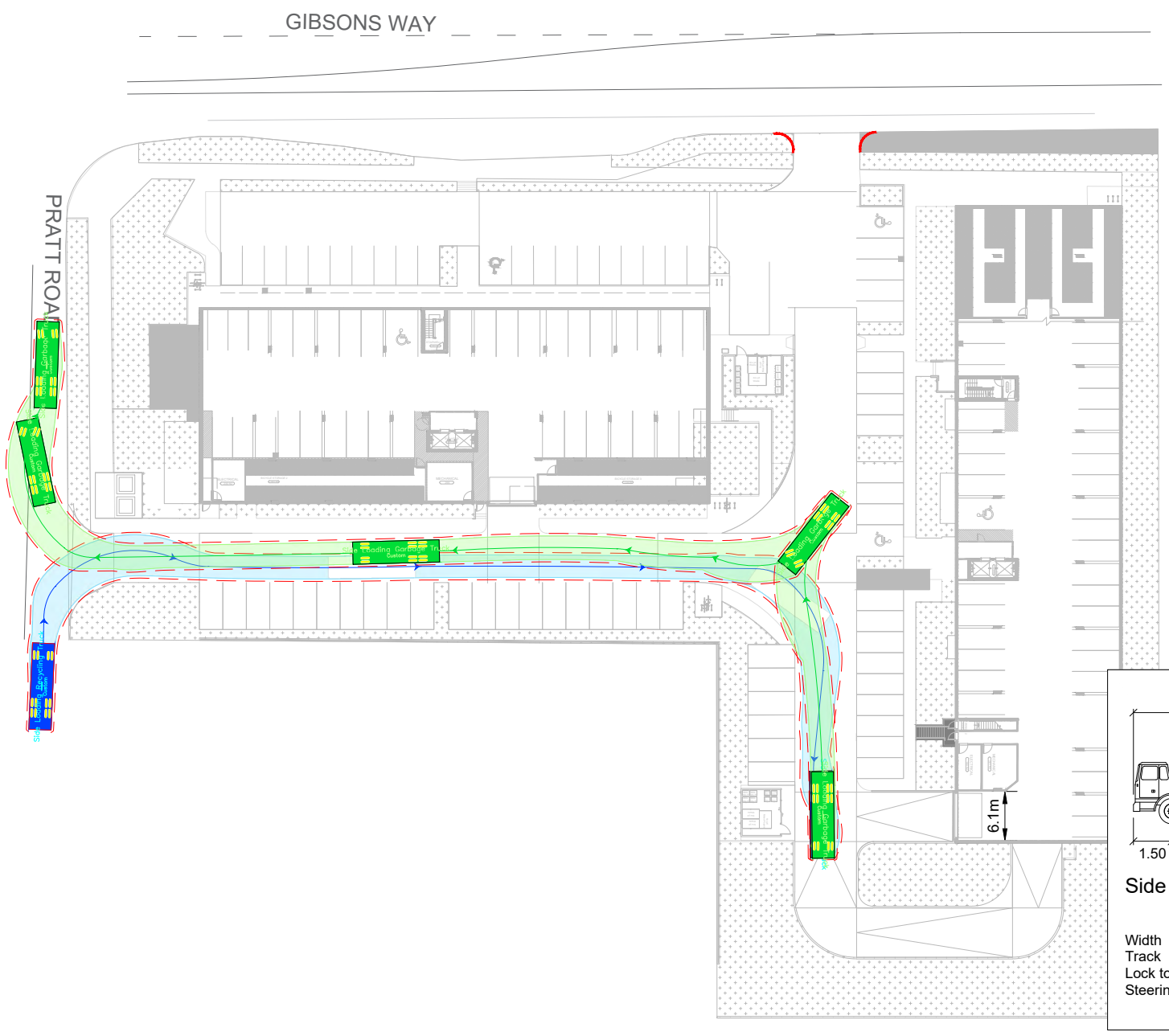
1057 Gibsons Way

04-21-0241 August 2023 Scale 1:250 on Ledger Prepared by AS

bunt & associates



Notes
1. Provide curb-returns with appropriate radii.



[Based on 2106 SITE PLAN - C CAD from PCREGROUP dated August 21, 2023.

[Issued for Discussion; not for Construction]

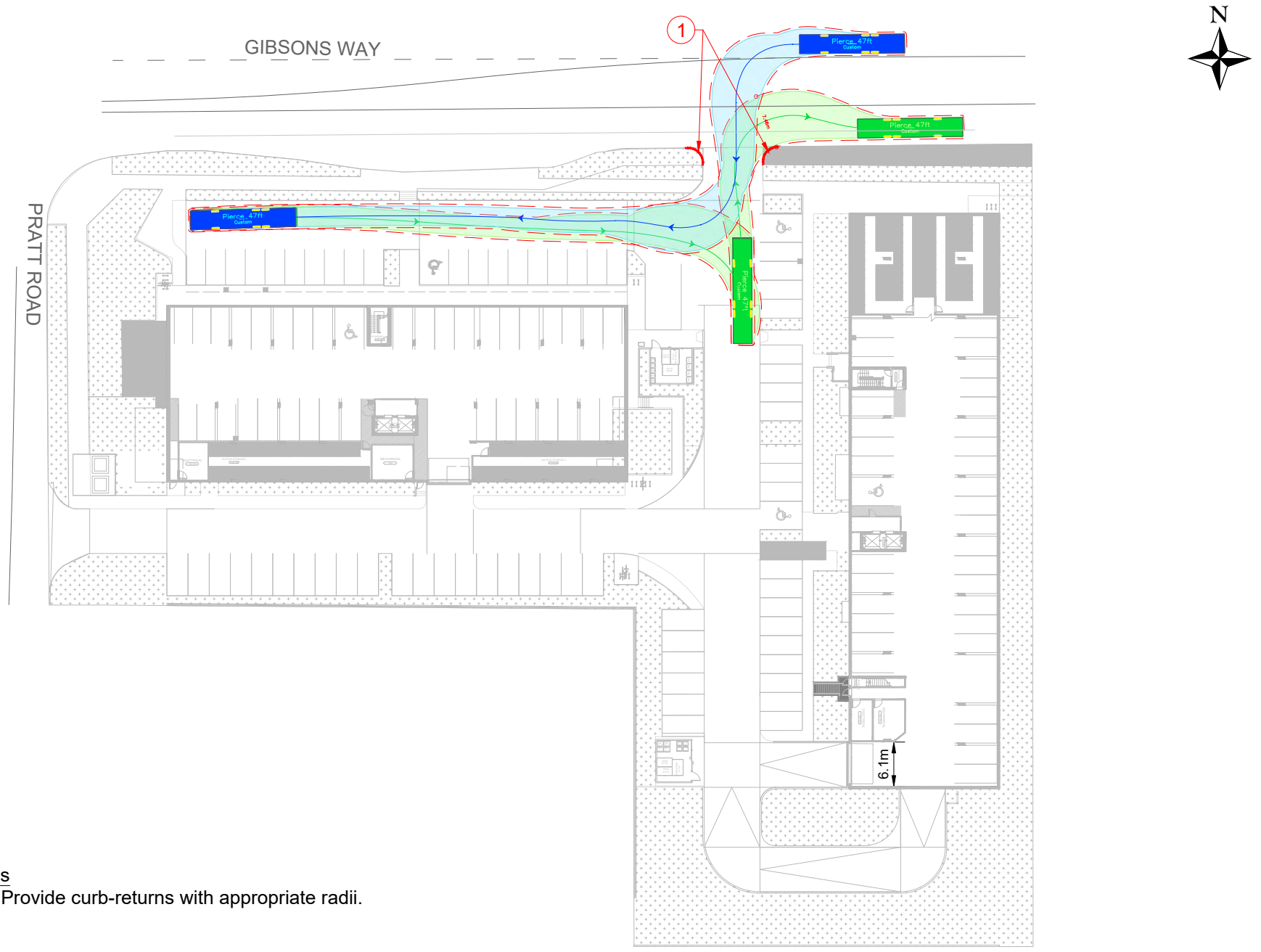
Exhibit 4.3

Garbage Collection Truck Site Access

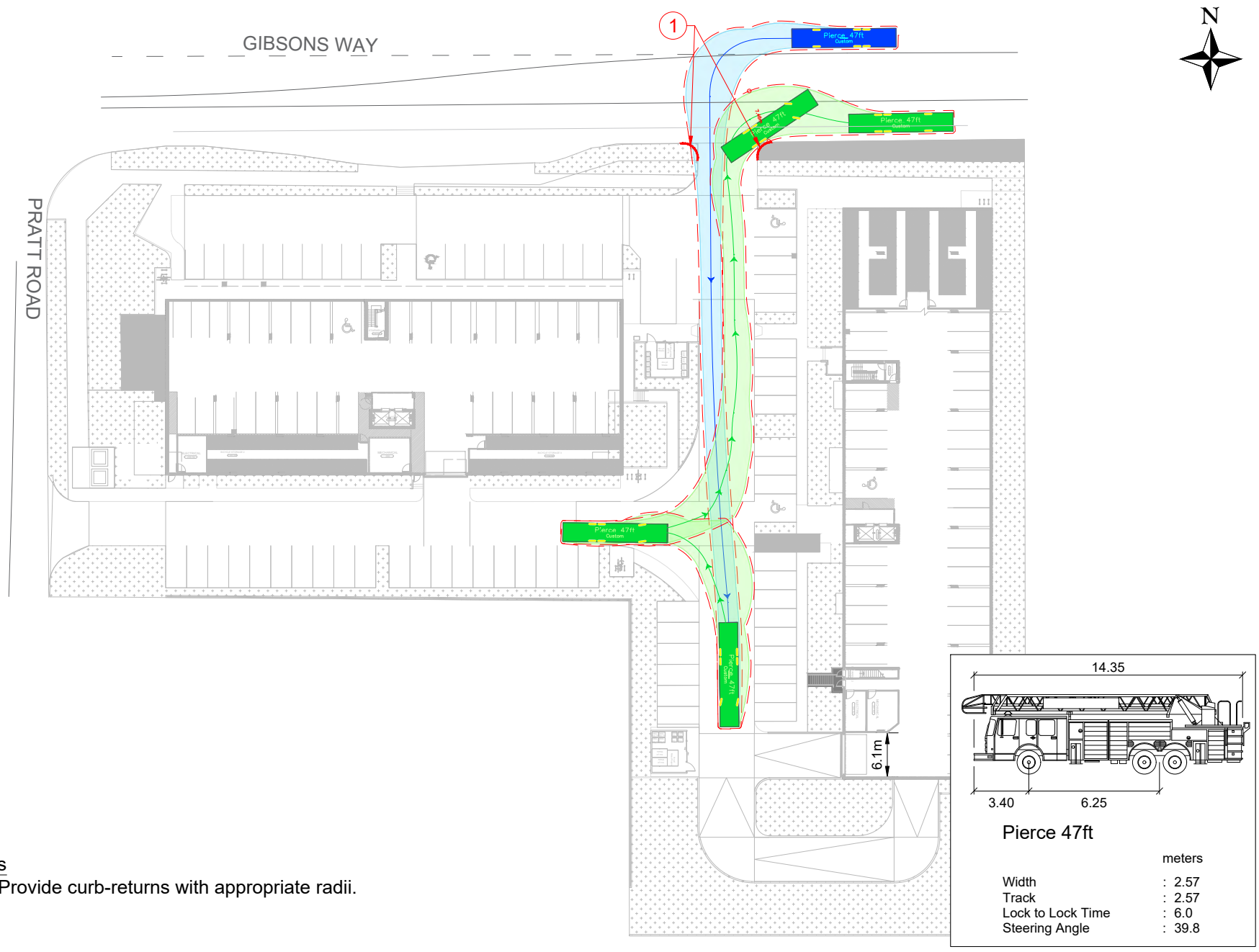
1057 Gibsons Way

04-21-0241 August 2023 Scale 1:750 on Ledger Prepared by AS

bunt & associates



Notes
1. Provide curb-returns with appropriate radii.



Notes
1. Provide curb-returns with appropriate radii.

[Based on 2106 SITE PLAN - C CAD from PCREGROUP dated August 21, 2023.

[Issued for Discussion; not for Construction]

Exhibit 4.4

Fire Truck Site Access to/from Gibsons Way

1057 Gibsons Way

04-21-0241 August 2023 Scale 1:750 on Ledger Prepared by AS

bunt & associates

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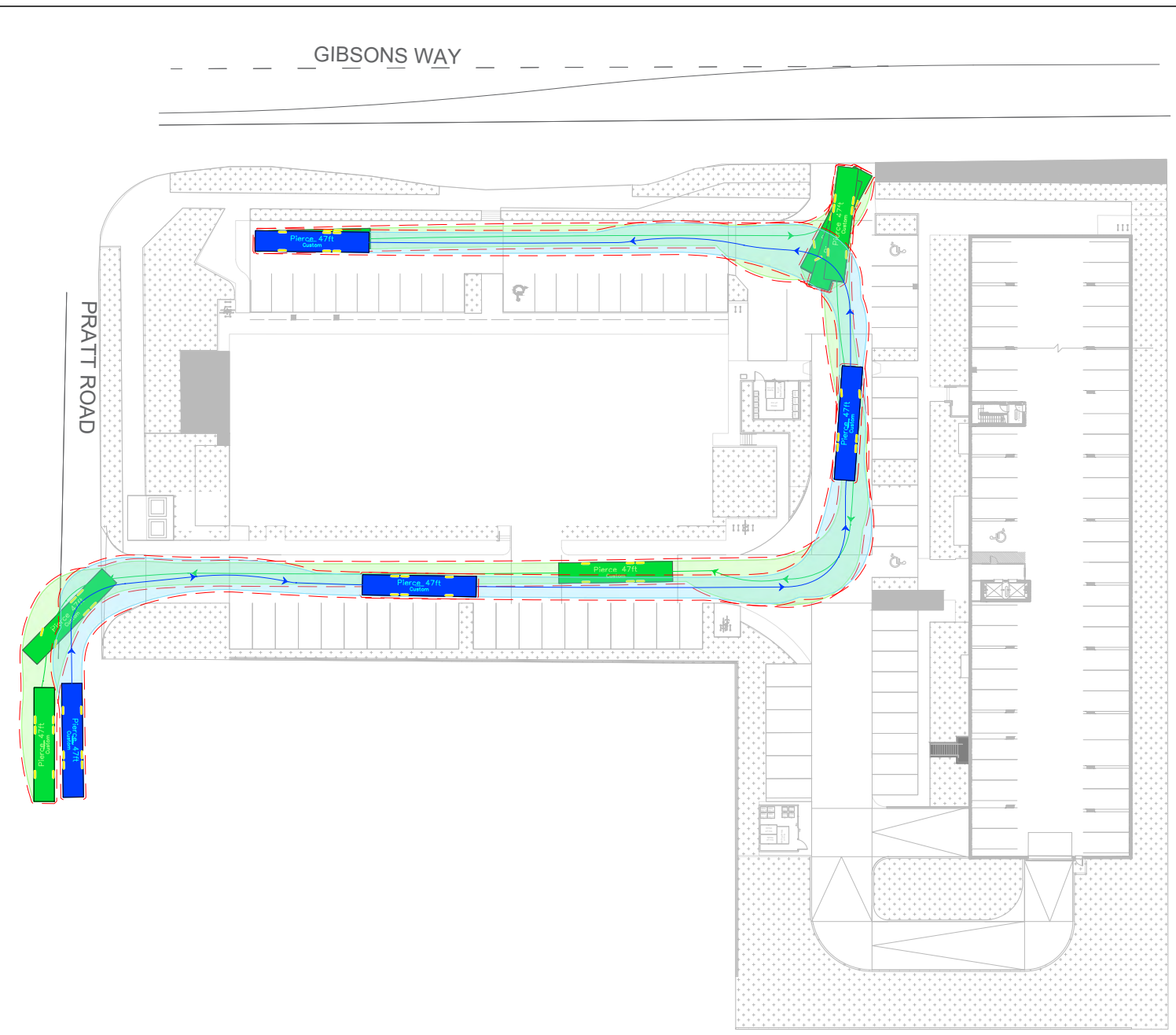

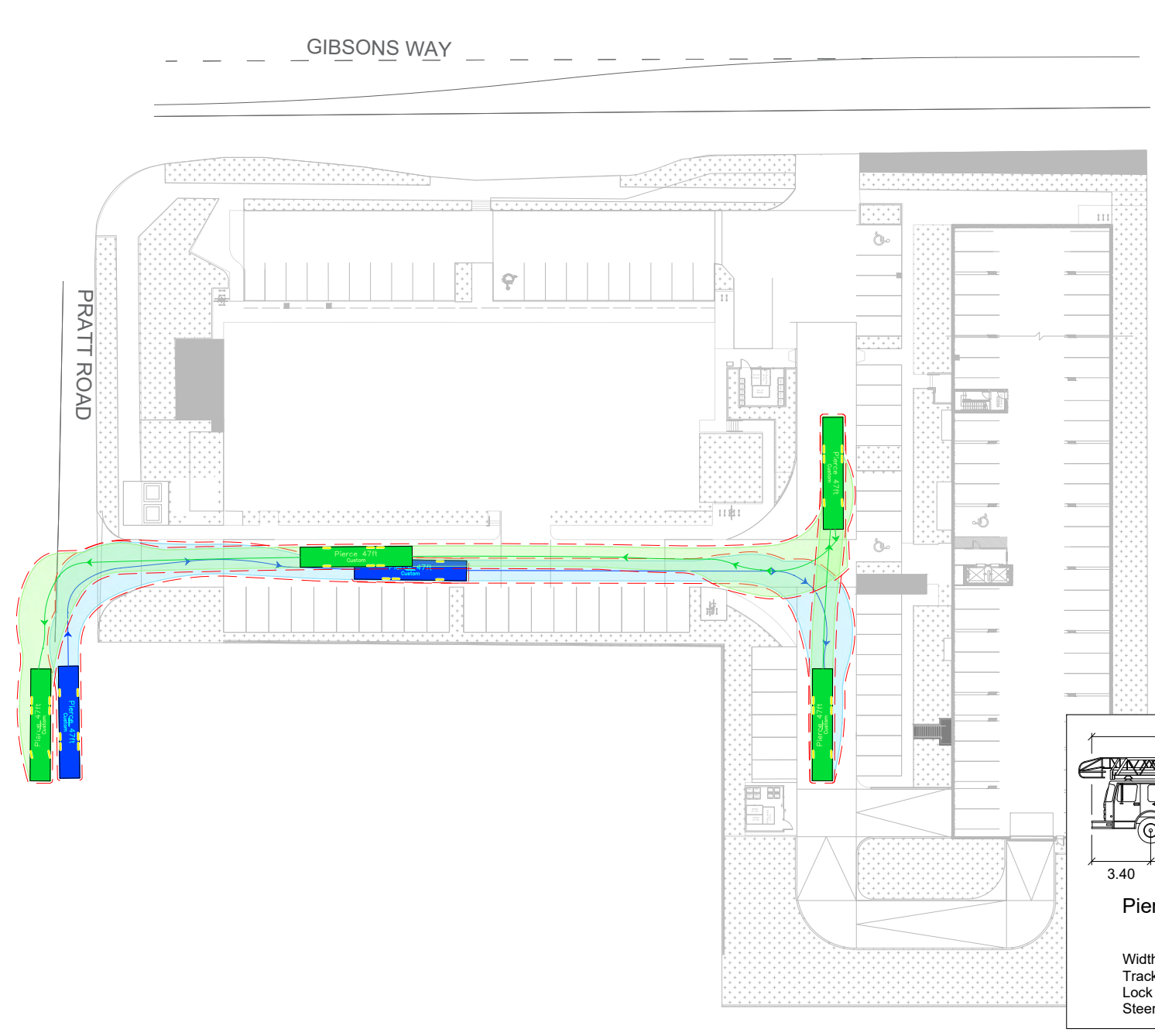

[Based on 2106 SITE PLAN - C CAD from PCREGROUP dated August 21, 2023.

[Issued for Discussion; not for Construction]

Exhibit 4.5

Fire Truck Site Access to/from Pratt Road

1057 Gibsons Way

04-21-0241 August 2023 Scale 1:750 on Ledger Prepared by AS

bunt & associates

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5. TRANSPORTATION DEMAND MANAGEMENT

5.1 Definition

Transportation Demand Management (TDM) is defined as the "application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles), or to redistribute this demand in space or in time". The objective of TDM is to reduce vehicle usage (by enabling additional walking, cycling and transit use) and correspondingly reducing vehicle parking demand. Regional and municipal governments, transit agencies, private developers, residents/resident associations or employers can all employ TDM measures to meet these objectives.

5.2 TDM Strategies

The following TDM measures will be provided by the development to promote more sustainable forms of transportation and also to support the vehicle parking variance.

Augmented Long-term Bicycle Parking Access: Locating bicycle storage rooms in a desirable location and providing quality design features makes them more inviting to residents. The proposed bicycle storage rooms in Building A (in Level 1 and Parkade Level P1) and Building B (in Parkade Level P1) can be easily accessed without the need for ramps, stairs, or elevators.

E-Bike Charging Infrastructure: The use of electric-assisted bicycles has increased significantly in recent years as it makes cycling longer distances and steep hills easier. The development will be providing electrical outlets throughout the bicycle storage rooms to facilitate this emerging mode of transportation.

Bicycle Repair Station: The developer will be providing a bicycle repair station within the bicycle storage room at Building A Level 1. This will assist residents with their bicycle maintenance.

Pedestrian Infrastructure: Availability of sidewalks encourages pedestrian activity. There is a sidewalk on the north frontage of the site. To improve pedestrian path connectivity, the development will provide a sidewalk along the west frontage along Pratt Road.

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6. SUMMARY

Key points from the study are outlined as follows:

1. PCRE groups proposes to develop 2 five-storey mixed-used buildings at 1057 Gibsons Way in the Town of Gibsons, BC. The proposed development will consist of 141 residential units, 5 live/works units and 3 commercial and retail units. The development is anticipated to generate 61 and 99 vehicles during the weekday AM and PM peak hours, respectively.
2. Two access driveways are proposed, one on Pratt Road and the other one on Sunshine Coast Highway (Gibsons Way). The BC Ministry of Transportation and Infrastructure expressed intent to limit access points to/from Sunshine Coast Highway. The development, however, deemed that a driveway on the highway is essential for the success of the future business on the site. The intersection of the access with Gibsons Way is proposed to allow all movements except for northbound left-turn to minimize movement conflicts with through traffic along the highway. Traffic operations analyses results for Opening Day and Opening Day + 10 Years scenarios indicate that no delay, capacity or queuing issues are anticipated at the site's north access when westbound left-turn movement into the site is permitted.
3. The site's proposed north access is approximately 90m away from the nearest signalized intersection of Pratt Road and Gibsons Way. The existing median lane allows for the added left-in movement without impacting other vehicle movements. The distance between this access and adjacent intersections meets the 70m TAC minimum required clearance of an access from a signalized intersection.
4. Results of the traffic analyses show that the 95th percentile queue of the southbound left-turn southbound left-turn movement (50m) during the AM Peak of Opening Day + 10 Years Total scenario will exceed the storage lane capacity of 35m. Aside from this capacity concern, all other movements at all study intersections during the future scenarios are still anticipated to meet acceptable thresholds for Level of Service, V/C ratio and queue length. Queue length exceeding the storage capacity can be mitigated by increasing the SBL movement's phase by 1.7s, while maintaining the original cycle length.
5. The proposed 161 passenger vehicle parking supply for residential use is less than the Town's Zoning Bylaw requirement of 190 stalls. However, the proposed parking spaces equate to a parking ratio of 1.1 stalls/unit which is higher than the observed parking demand and vehicle ownership ratios from 3 comparable residential developments in Gibsons. Therefore, it is anticipated that the proposed supply is adequate for the proposed development.
6. The proposed residential visitor parking supply of 11 stalls is also less than the Bylaw requirement of 21 stalls. However, this supply equates to 0.08 stalls/unit which is within the range of the peak visitor parking demand ratio observed throughout British Columbia, thus is deemed adequate for the proposed development. Moreover, there is a potential for residential visitors to share the parking spaces of the commercial use as the peak parking demands of the two land uses typically occur at different times.

7. The proposed supply of 19 commercial parking spaces meets the Bylaw requirement. Note that the commercial spaces are intended to be shared with residential visitors.
8. While the Bylaw do not require any accessible parking spaces for the proposed land use mix, the Developer is proposing 5 accessible spaces. Two (2) of which will be located at surface for visitors and commercial use while three (3) will be located within the underground parkade levels intended for residential use.
9. The proposed total supply of 184 Class 1 and 32 Class 2 bicycle spaces meet the Bylaw requirements for all the uses.
10. The development will provide Transportation Demand Management (TDM) measures to support the parking variance. The TDM measures are mainly intended to promote walking and bicycle use (i.e., additional long-term bike spaces, improved access to bike spaces, e-bike charging and bike repair facilities, and provision of pedestrian infrastructure).
11. The proposed 2 loading spaces for the full development meet the Bylaw requirements.
12. Site and parking layout review through vehicle swept path analyses illustrate that the proposed site accesses and drive aisle are adequate for two passenger car movements to simultaneously pass each other. Aisle widths are also shown to be sufficient for passenger vehicles to maneuver in and out of the stalls. The drive aisles are also adequate for a single-unit truck to access the designated loading bays, for a fire truck to move through and enter/exit the site, and for a garbage collection truck to access the garbage enclosure on the south side of the development.

6.1 Recommendations

1. Signal timing optimization at the Pratt Road/Payne Road & Gibsons Way intersection is recommended after the completion of the full development and potentially after full occupancy of the development.

2. To facilitate two-way access of passenger vehicles, bigger radii for the curb-return on both sides of the Building A Level P1 parkade driveway is recommended.

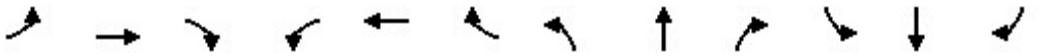
3. Regular car would have difficulty accessing the two end stalls at the north end of Building B Level P1. Changing these stalls to small car stalls is recommended.

4. To facilitate two-way access of passenger vehicles, increasing the corner cut to 2.8m at the corner near the entrance of Building B Level P1 is recommended. Provision of convex mirror is also recommended to improve visibility of oncoming vehicles.

5. To facilitate smooth turning at the driveway on Gibsons Way, curb-returns with appropriate radii are recommended.

APPENDIX A

Synchro Reports

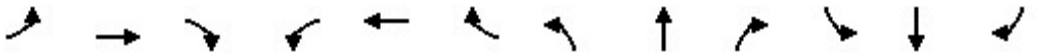


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	429	25	113	305	58	85	75	123	133	69	190
Future Volume (vph)	149	429	25	113	305	58	85	75	123	133	69	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1827	0	1770	1792	0	0	1814	1583	1770	1863	1583
Flt Permitted	0.364			0.345				0.792		0.646		
Satd. Flow (perm)	672	1827	0	638	1792	0	0	1464	1520	1185	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				137			211
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		726.9			101.2			69.3			258.5	
Travel Time (s)		52.3			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	505	0	126	403	0	0	177	137	148	77	211
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	32.1	25.7		30.7	22.1			14.8	14.8	14.8	14.8	14.8
Actuated g/C Ratio	0.52	0.42		0.50	0.36			0.24	0.24	0.24	0.24	0.24
v/c Ratio	0.34	0.66		0.27	0.62			0.50	0.29	0.52	0.17	0.40
Control Delay	8.9	21.5		8.3	20.7			27.5	6.4	29.6	21.4	6.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	21.5		8.3	20.7			27.5	6.4	29.6	21.4	6.2
LOS	A	C		A	C			C	A	C	C	A
Approach Delay		18.4			17.7			18.3			16.8	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	7.0	45.5		5.1	33.2			16.9	0.0	14.2	6.7	0.0
Queue Length 95th (m)	20.3	95.6		15.7	71.4			41.2	12.2	36.4	19.2	14.7
Internal Link Dist (m)		702.9			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	501	1173		477	1145			654	755	529	832	804
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.33	0.43		0.26	0.35			0.27	0.18	0.28	0.09	0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 61.7			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 59.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	429	25	113	305	58	85	75	123	133	69	190
Future Volume (veh/h)	149	429	25	113	305	58	85	75	123	133	69	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	166	477	28	126	339	64	94	83	137	148	77	211
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	464	673	40	399	573	108	269	213	446	327	536	449
Arrive On Green	0.09	0.39	0.39	0.08	0.38	0.38	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	1734	102	1781	1514	286	640	744	1557	1149	1870	1568
Grp Volume(v), veh/h	166	0	505	126	0	403	177	0	137	148	77	211
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	0	1800	1385	0	1557	1149	1870	1568
Q Serve(g_s), s	3.5	0.0	15.0	2.6	0.0	11.6	4.4	0.0	4.4	7.7	2.0	7.1
Cycle Q Clear(g_c), s	3.5	0.0	15.0	2.6	0.0	11.6	6.4	0.0	4.4	14.1	2.0	7.1
Prop In Lane	1.00		0.06	1.00		0.16	0.53		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	0	712	399	0	681	482	0	446	327	536	449
V/C Ratio(X)	0.36	0.00	0.71	0.32	0.00	0.59	0.37	0.00	0.31	0.45	0.14	0.47
Avail Cap(c_a), veh/h	528	0	1054	472	0	1034	640	0	629	461	755	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	0.0	16.6	11.9	0.0	16.0	18.5	0.0	18.0	24.4	17.1	19.0
Incr Delay (d2), s/veh	0.5	0.0	1.3	0.6	0.0	1.2	0.7	0.0	0.6	1.0	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	7.1	1.2	0.0	5.4	2.4	0.0	1.8	2.4	0.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	0.0	18.0	12.5	0.0	17.2	19.2	0.0	18.5	25.4	17.2	19.7
LnGrp LOS	B	A	B	B	A	B	B	A	B	C	B	B
Approach Vol, veh/h		671			529			314			436	
Approach Delay, s/veh		16.4			16.1			18.9			21.2	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	30.5		23.6	10.9	29.9		23.6				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	4.6	17.0		16.1	5.5	13.6		8.4				
Green Ext Time (p_c), s	0.2	8.0		2.3	0.2	8.1		4.0				

Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	684	0	0	476	0	0
Future Vol, veh/h	684	0	0	476	0	0
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	743	0	0	517	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	753	0	-	763
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	857	-	0	404
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	849	-	-	397
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	849	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

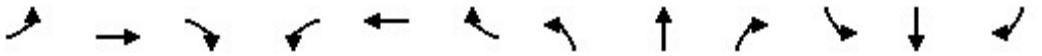
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	283	0	0	207
Future Vol, veh/h	0	0	283	0	0	207
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	314	0	0	230

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	564	334	0	0	324	0
Stage 1	324	-	-	-	-	-
Stage 2	240	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	487	708	-	-	1236	-
Stage 1	733	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	478	695	-	-	1225	-
Mov Cap-2 Maneuver	478	-	-	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1225	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

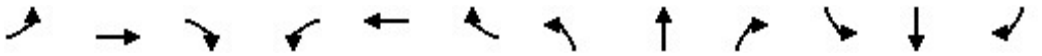


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	378	56	125	377	68	56	68	71	105	116	294
Future Volume (vph)	131	378	56	125	377	68	56	68	71	105	116	294
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1802	0	1770	1794	0	0	1822	1583	1770	1863	1583
Flt Permitted	0.342			0.365				0.804		0.673		
Satd. Flow (perm)	632	1802	0	674	1794	0	0	1488	1520	1232	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			13				93			309
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		715.1			101.2			69.3			258.5	
Travel Time (s)		51.5			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	457	0	132	469	0	0	131	75	111	122	309
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	28.1	22.0		28.4	21.9			12.7	12.7	12.7	12.7	12.7
Actuated g/C Ratio	0.50	0.39		0.51	0.39			0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.29	0.64		0.26	0.66			0.39	0.18	0.40	0.29	0.53
Control Delay	7.5	19.4		7.1	20.1			25.4	5.3	26.5	23.1	6.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	19.4		7.1	20.1			25.4	5.3	26.5	23.1	6.8
LOS	A	B		A	C			C	A	C	C	A
Approach Delay		16.7			17.3			18.1			14.5	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	5.1	36.7		4.7	38.3			11.8	0.0	10.0	10.7	0.0
Queue Length 95th (m)	14.7	75.6		14.1	78.6			30.4	7.1	27.2	27.7	17.8
Internal Link Dist (m)		691.1			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	498	1253		516	1241			764	825	632	956	940
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.28	0.36		0.26	0.38			0.17	0.09	0.18	0.13	0.33

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 56.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 66.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	378	56	125	377	68	56	68	71	105	116	294
Future Volume (veh/h)	131	378	56	125	377	68	56	68	71	105	116	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	398	59	132	397	72	59	72	75	111	122	309
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	433	626	93	448	597	108	211	228	417	349	501	420
Arrive On Green	0.09	0.40	0.40	0.09	0.39	0.39	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1781	1576	234	1781	1525	277	475	850	1555	1225	1870	1567
Grp Volume(v), veh/h	138	0	457	132	0	469	131	0	75	111	122	309
Grp Sat Flow(s),veh/h/ln	1781	0	1810	1781	0	1802	1325	0	1555	1225	1870	1567
Q Serve(g_s), s	2.7	0.0	12.8	2.6	0.0	13.4	1.6	0.0	2.3	5.1	3.2	11.3
Cycle Q Clear(g_c), s	2.7	0.0	12.8	2.6	0.0	13.4	4.8	0.0	2.3	9.9	3.2	11.3
Prop In Lane	1.00		0.13	1.00		0.15	0.45		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	433	0	719	448	0	705	438	0	417	349	501	420
V/C Ratio(X)	0.32	0.00	0.64	0.29	0.00	0.67	0.30	0.00	0.18	0.32	0.24	0.74
Avail Cap(c_a), veh/h	505	0	1069	522	0	1064	630	0	646	529	776	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	0.0	15.2	10.7	0.0	15.7	18.3	0.0	17.6	22.5	18.0	20.9
Incr Delay (d2), s/veh	0.4	0.0	0.9	0.5	0.0	1.5	0.5	0.0	0.3	0.5	0.2	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	5.9	1.2	0.0	6.3	1.7	0.0	0.0	1.6	1.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	0.0	16.2	11.2	0.0	17.2	18.8	0.0	17.9	23.1	18.2	23.4
LnGrp LOS	B	A	B	B	A	B	B	A	B	C	B	C
Approach Vol, veh/h		595			601			206			542	
Approach Delay, s/veh		15.1			15.9			18.5			22.2	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	30.4		22.0	10.7	30.0		22.0				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	4.6	14.8		13.3	4.7	15.4		6.8				
Green Ext Time (p_c), s	0.2	7.7		3.5	0.2	9.1		2.8				

Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	554	0	0	570	0	0
Future Vol, veh/h	554	0	0	570	0	0
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	596	0	0	613	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	606	0	-	616
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	972	-	0	491
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	963	-	-	482
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	963	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

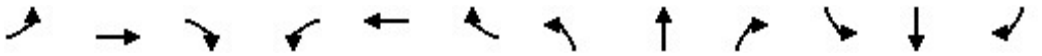
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	195	0	0	297
Future Vol, veh/h	0	0	195	0	0	297
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	203	0	0	309

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	532	223	0	0	213	0
Stage 1	213	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	508	817	-	-	1357	-
Stage 1	823	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	499	802	-	-	1344	-
Mov Cap-2 Maneuver	499	-	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	730	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1344	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	445	26	118	316	60	88	77	128	138	72	197
Future Volume (vph)	155	445	26	118	316	60	88	77	128	138	72	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1827	0	1770	1792	0	0	1814	1583	1770	1863	1583
Flt Permitted	0.351			0.326				0.790		0.629		
Satd. Flow (perm)	648	1827	0	603	1792	0	0	1460	1520	1154	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				142			219
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		726.9			101.2			69.3			258.5	
Travel Time (s)		52.3			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	523	0	131	418	0	0	184	142	153	80	219
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	32.9	26.5		31.5	22.8			15.3	15.3	15.3	15.3	15.3
Actuated g/C Ratio	0.52	0.42		0.50	0.36			0.24	0.24	0.24	0.24	0.24
v/c Ratio	0.36	0.68		0.29	0.64			0.52	0.30	0.55	0.18	0.41
Control Delay	9.3	22.2		8.7	21.3			28.0	6.3	30.7	21.6	6.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	22.2		8.7	21.3			28.0	6.3	30.7	21.6	6.1
LOS	A	C		A	C			C	A	C	C	A
Approach Delay		19.0			18.2			18.6			17.2	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	7.5	48.7		5.4	35.4			18.1	0.0	15.2	7.2	0.0
Queue Length 95th (m)	21.4	101.2		16.6	75.8			42.6	12.2	37.9	19.9	14.9
Internal Link Dist (m)		702.9			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	490	1148		462	1120			638	744	504	814	796
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.35	0.46		0.28	0.37			0.29	0.19	0.30	0.10	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 63			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 18.3		Intersection LOS: B	
Intersection Capacity Utilization 60.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	445	26	118	316	60	88	77	128	138	72	197
Future Volume (veh/h)	155	445	26	118	316	60	88	77	128	138	72	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	494	29	131	351	67	98	86	142	153	80	219
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	449	679	40	384	579	110	270	214	459	321	551	462
Arrive On Green	0.09	0.39	0.39	0.08	0.38	0.38	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	1734	102	1781	1511	288	637	725	1558	1141	1870	1569
Grp Volume(v), veh/h	172	0	523	131	0	418	184	0	142	153	80	219
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	0	1799	1363	0	1558	1141	1870	1569
Q Serve(g_s), s	3.8	0.0	16.3	2.9	0.0	12.5	5.0	0.0	4.7	8.4	2.1	7.7
Cycle Q Clear(g_c), s	3.8	0.0	16.3	2.9	0.0	12.5	7.2	0.0	4.7	15.6	2.1	7.7
Prop In Lane	1.00		0.06	1.00		0.16	0.53		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	449	0	719	384	0	689	483	0	459	321	551	462
V/C Ratio(X)	0.38	0.00	0.73	0.34	0.00	0.61	0.38	0.00	0.31	0.48	0.15	0.47
Avail Cap(c_a), veh/h	509	0	1012	450	0	992	608	0	604	428	724	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	0.0	17.4	12.5	0.0	16.6	19.1	0.0	18.4	25.6	17.5	19.4
Incr Delay (d2), s/veh	0.5	0.0	1.6	0.7	0.0	1.2	0.7	0.0	0.5	1.1	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	7.8	1.3	0.0	5.9	2.6	0.0	1.9	2.6	1.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	0.0	19.0	13.3	0.0	17.9	19.8	0.0	18.9	26.7	17.6	20.2
LnGrp LOS	B	A	B	B	A	B	B	A	B	C	B	C
Approach Vol, veh/h		695			549			326			452	
Approach Delay, s/veh		17.4			16.8			19.4			21.9	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	31.8		25.0	11.0	31.2		25.0				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	4.9	18.3		17.6	5.8	14.5		9.2				
Green Ext Time (p_c), s	0.2	8.0		2.2	0.2	8.2		4.0				

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	709	0	0	494	0	0
Future Vol, veh/h	709	0	0	494	0	0
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	10	2	2
Mvmt Flow	771	0	0	537	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	781	0	-	791
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	837	-	0	390
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	829	-	-	383
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	829	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	293	0	0	215
Future Vol, veh/h	0	0	293	0	0	215
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	326	0	0	239

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	585	346	0	0	336	0
Stage 1	336	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	473	697	-	-	1223	-
Stage 1	724	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	464	684	-	-	1212	-
Mov Cap-2 Maneuver	464	-	-	-	-	-
Stage 1	717	-	-	-	-	-
Stage 2	785	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

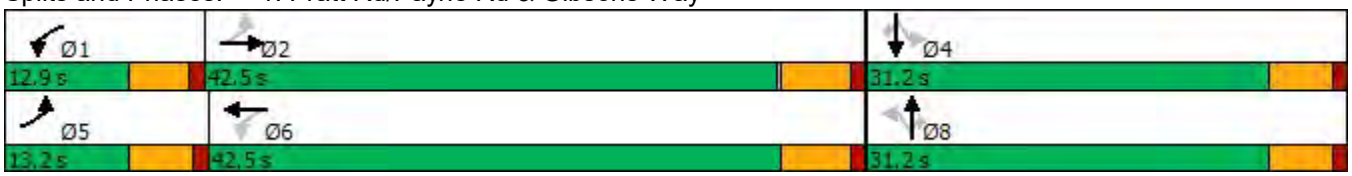
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1212	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

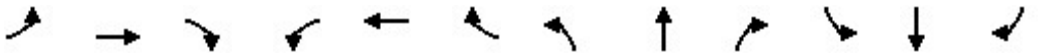
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	400	59	132	399	72	59	72	75	111	122	310
Future Volume (vph)	139	400	59	132	399	72	59	72	75	111	122	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1802	0	1770	1794	0	0	1822	1583	1770	1863	1583
Flt Permitted	0.322			0.340				0.800		0.669		
Satd. Flow (perm)	596	1802	0	628	1794	0	0	1481	1520	1225	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			13				93			326
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		715.1			101.2			69.3			258.5	
Travel Time (s)		51.5			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	483	0	139	496	0	0	138	79	117	128	326
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	29.7	23.6		30.0	23.5			13.2	13.2	13.2	13.2	13.2
Actuated g/C Ratio	0.51	0.41		0.52	0.40			0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.31	0.65		0.28	0.68			0.41	0.19	0.42	0.30	0.54
Control Delay	7.8	19.7		7.4	20.5			26.7	5.8	27.9	24.1	7.0
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	19.7		7.4	20.5			26.7	5.8	27.9	24.1	7.0
LOS	A	B		A	C			C	A	C	C	A
Approach Delay		16.9			17.6			19.1			15.1	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	5.6	40.2		5.2	42.1			12.9	0.0	10.9	11.6	0.0
Queue Length 95th (m)	15.8	81.9		14.9	85.3			33.1	7.9	29.7	29.9	18.6
Internal Link Dist (m)		691.1			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	485	1218		499	1207			735	801	608	924	927
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.30	0.40		0.28	0.41			0.19	0.10	0.19	0.14	0.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 58.2			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	400	59	132	399	72	59	72	75	111	122	310
Future Volume (veh/h)	139	400	59	132	399	72	59	72	75	111	122	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	421	62	139	420	76	62	76	79	117	128	326
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	414	638	94	430	608	110	207	226	427	338	513	430
Arrive On Green	0.08	0.40	0.40	0.08	0.40	0.40	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1781	1578	232	1781	1526	276	466	825	1556	1217	1870	1568
Grp Volume(v), veh/h	146	0	483	139	0	496	138	0	79	117	128	326
Grp Sat Flow(s),veh/h/ln	1781	0	1810	1781	0	1802	1291	0	1556	1217	1870	1568
Q Serve(g_s), s	3.0	0.0	14.2	2.9	0.0	15.0	2.2	0.0	2.5	5.7	3.5	12.5
Cycle Q Clear(g_c), s	3.0	0.0	14.2	2.9	0.0	15.0	5.7	0.0	2.5	11.3	3.5	12.5
Prop In Lane	1.00		0.13	1.00		0.15	0.45		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	0	732	430	0	718	433	0	427	338	513	430
V/C Ratio(X)	0.35	0.00	0.66	0.32	0.00	0.69	0.32	0.00	0.19	0.35	0.25	0.76
Avail Cap(c_a), veh/h	480	0	1020	497	0	1015	590	0	616	486	740	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	0.0	15.9	11.3	0.0	16.4	19.1	0.0	18.2	24.0	18.6	21.8
Incr Delay (d2), s/veh	0.5	0.0	1.0	0.6	0.0	1.7	0.6	0.0	0.3	0.6	0.3	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	6.6	1.3	0.0	7.0	1.9	0.0	1.0	1.8	1.7	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.1	0.0	16.9	11.9	0.0	18.1	19.7	0.0	18.5	24.6	18.8	25.1
LnGrp LOS	B	A	B	B	A	B	B	A	B	C	B	C
Approach Vol, veh/h		629			635			217			571	
Approach Delay, s/veh		15.8			16.7			19.3			23.6	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	32.0		23.2	10.8	31.7		23.2				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	4.9	16.2		14.5	5.0	17.0		7.7				
Green Ext Time (p_c), s	0.2	7.8		3.5	0.2	9.2		2.9				

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	586	0	0	603	0	0
Future Vol, veh/h	586	0	0	603	0	0
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	630	0	0	648	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	640	0	-	650
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	944	-	0	469
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	935	-	-	460
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	935	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

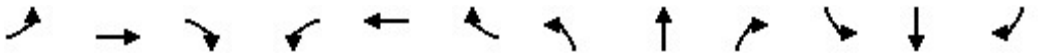
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	206	0	0	314
Future Vol, veh/h	0	0	206	0	0	314
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	215	0	0	327

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	562	235	0	0	225	0
Stage 1	225	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	488	804	-	-	1344	-
Stage 1	812	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	479	789	-	-	1332	-
Mov Cap-2 Maneuver	479	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	716	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1332	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

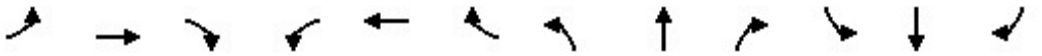


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	451	26	118	316	60	101	86	128	138	75	197
Future Volume (vph)	155	451	26	118	316	60	101	86	128	138	75	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1827	0	1770	1749	0	0	1814	1583	1770	1863	1583
Flt Permitted	0.349			0.315				0.787		0.582		
Satd. Flow (perm)	645	1827	0	583	1749	0	0	1455	1520	1068	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				142			219
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		726.9			101.2			69.3			258.5	
Travel Time (s)		52.3			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	530	0	131	418	0	0	208	142	153	83	219
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	33.4	27.0		32.0	23.3			16.1	16.1	16.1	16.1	16.1
Actuated g/C Ratio	0.52	0.42		0.50	0.36			0.25	0.25	0.25	0.25	0.25
v/c Ratio	0.36	0.69		0.30	0.65			0.57	0.29	0.57	0.18	0.40
Control Delay	9.6	22.8		9.0	22.1			29.4	6.2	32.3	21.7	5.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	22.8		9.0	22.1			29.4	6.2	32.3	21.7	5.9
LOS	A	C		A	C			C	A	C	C	A
Approach Delay		19.5			18.9			20.0			17.7	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	8.0	51.7		5.8	37.1			21.3	0.0	15.7	7.6	0.0
Queue Length 95th (m)	21.4	103.1		16.6	76.6			48.3	12.2	38.8	20.4	14.9
Internal Link Dist (m)		702.9			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	483	1121		449	1068			621	730	456	795	782
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.36	0.47		0.29	0.39			0.33	0.19	0.34	0.10	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 64.3			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	451	26	118	316	60	101	86	128	138	75	197
Future Volume (veh/h)	155	451	26	118	316	60	101	86	128	138	75	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1811	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	501	29	131	351	67	112	96	142	153	83	219
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	3	2	2	6	2	2	2	2	2	2	2
Cap, veh/h	434	676	39	368	559	107	277	216	479	310	575	483
Arrive On Green	0.08	0.39	0.39	0.08	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	1735	100	1781	1475	281	643	701	1559	1132	1870	1570
Grp Volume(v), veh/h	172	0	530	131	0	418	208	0	142	153	83	219
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	0	1756	1344	0	1559	1132	1870	1570
Q Serve(g_s), s	4.0	0.0	17.3	3.0	0.0	13.5	6.5	0.0	4.8	8.9	2.2	7.8
Cycle Q Clear(g_c), s	4.0	0.0	17.3	3.0	0.0	13.5	8.7	0.0	4.8	17.6	2.2	7.8
Prop In Lane	1.00		0.05	1.00		0.16	0.54		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	434	0	715	368	0	666	493	0	479	310	575	483
V/C Ratio(X)	0.40	0.00	0.74	0.36	0.00	0.63	0.42	0.00	0.30	0.49	0.14	0.45
Avail Cap(c_a), veh/h	487	0	975	431	0	933	581	0	582	384	698	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	18.3	13.3	0.0	17.6	19.6	0.0	18.4	26.9	17.5	19.4
Incr Delay (d2), s/veh	0.6	0.0	2.0	0.8	0.0	1.4	0.8	0.0	0.5	1.2	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	8.3	1.4	0.0	6.2	3.1	0.0	2.0	2.7	1.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	0.0	20.3	14.2	0.0	19.0	20.4	0.0	18.9	28.2	17.6	20.1
LnGrp LOS	B	A	C	B	A	B	C	A	B	C	B	C
Approach Vol, veh/h		702			549			350			455	
Approach Delay, s/veh		18.6			17.8			19.8			22.3	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	32.6		26.6	11.1	31.9		26.6				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	5.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.0	19.3		19.6	6.0	15.5		10.7				
Green Ext Time (p_c), s	0.2	7.8		1.8	0.2	8.0		4.2				

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	709	7	5	494	0	13
Future Vol, veh/h	709	7	5	494	0	13
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	10	2	2
Mvmt Flow	771	8	5	537	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	789	0	-	795
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	831	-	0	388
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	823	-	-	381
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	381	-	-	823	-
HCM Lane V/C Ratio	0.037	-	-	0.007	-
HCM Control Delay (s)	14.8	-	-	9.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

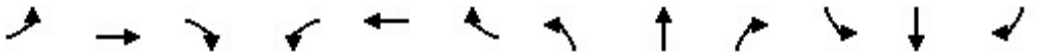
Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	21	293	4	4	215
Future Vol, veh/h	8	21	293	4	4	215
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	23	326	4	4	239

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	595	348	0	0	340	0
Stage 1	338	-	-	-	-	-
Stage 2	257	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	467	695	-	-	1219	-
Stage 1	722	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	457	682	-	-	1208	-
Mov Cap-2 Maneuver	457	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	776	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	600	1208	-
HCM Lane V/C Ratio	-	-	0.054	0.004	-
HCM Control Delay (s)	-	-	11.3	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	419	59	132	399	72	72	80	75	111	136	310
Future Volume (vph)	139	419	59	132	399	72	72	80	75	111	136	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1804	0	1770	1794	0	0	1820	1583	1770	1863	1583
Flt Permitted	0.317			0.314				0.778		0.656		
Satd. Flow (perm)	586	1804	0	581	1794	0	0	1440	1520	1202	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			13				93			326
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		715.1			101.2			69.3			258.5	
Travel Time (s)		51.5			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	503	0	139	496	0	0	160	79	117	143	326
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	29.9	23.9		30.3	23.8			14.1	14.1	14.1	14.1	14.1
Actuated g/C Ratio	0.50	0.40		0.51	0.40			0.24	0.24	0.24	0.24	0.24
v/c Ratio	0.32	0.69		0.30	0.68			0.47	0.18	0.41	0.32	0.53
Control Delay	8.3	21.3		7.9	21.1			27.7	5.6	27.4	24.1	6.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	21.3		7.9	21.1			27.7	5.6	27.4	24.1	6.7
LOS	A	C		A	C			C	A	C	C	A
Approach Delay		18.3			18.3			20.4			15.1	
Approach LOS		B			B			C			B	
Queue Length 50th (m)	5.8	43.9		5.4	43.2			15.4	0.0	11.1	13.2	0.0
Queue Length 95th (m)	16.7	90.0		15.8	88.7			37.8	7.9	29.7	32.7	18.3
Internal Link Dist (m)		691.1			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	474	1203		475	1191			700	786	584	906	915
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.31	0.42		0.29	0.42			0.23	0.10	0.20	0.16	0.36

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 59.3			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 17.6		Intersection LOS: B	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	419	59	132	399	72	72	80	75	111	136	310
Future Volume (veh/h)	139	419	59	132	399	72	72	80	75	111	136	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	441	62	139	420	76	76	84	79	117	143	326
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	404	635	89	405	602	109	214	210	445	312	534	448
Arrive On Green	0.08	0.40	0.40	0.08	0.39	0.39	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	1589	223	1781	1526	276	472	737	1557	1209	1870	1568
Grp Volume(v), veh/h	146	0	503	139	0	496	160	0	79	117	143	326
Grp Sat Flow(s),veh/h/ln	1781	0	1812	1781	0	1802	1210	0	1557	1209	1870	1568
Q Serve(g_s), s	3.1	0.0	15.5	3.0	0.0	15.5	3.8	0.0	2.6	6.0	4.0	12.6
Cycle Q Clear(g_c), s	3.1	0.0	15.5	3.0	0.0	15.5	7.8	0.0	2.6	13.8	4.0	12.6
Prop In Lane	1.00		0.12	1.00		0.15	0.47		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	404	0	724	405	0	711	424	0	445	312	534	448
V/C Ratio(X)	0.36	0.00	0.69	0.34	0.00	0.70	0.38	0.00	0.18	0.38	0.27	0.73
Avail Cap(c_a), veh/h	467	0	998	470	0	992	552	0	603	435	724	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	0.0	16.8	12.0	0.0	17.0	19.8	0.0	18.1	25.7	18.6	21.7
Incr Delay (d2), s/veh	0.5	0.0	1.2	0.7	0.0	1.8	0.8	0.0	0.3	0.7	0.3	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	7.3	1.4	0.0	7.3	2.4	0.0	1.0	1.9	1.9	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	0.0	18.0	12.7	0.0	18.8	20.5	0.0	18.3	26.4	18.8	24.5
LnGrp LOS	B	A	B	B	A	B	C	A	B	C	B	C
Approach Vol, veh/h		649			635			239			586	
Approach Delay, s/veh		16.8			17.4			19.8			23.5	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	32.4		24.4	10.8	32.0		24.4				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	5.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.0	17.5		15.8	5.1	17.5		9.8				
Green Ext Time (p_c), s	0.2	7.9		3.4	0.2	9.0		3.1				

Intersection Summary	
HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	586	19	17	603	0	11
Future Vol, veh/h	586	19	17	603	0	11
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	637	21	18	655	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	668	0	-	668
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	922	-	0	458
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	913	-	-	450
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	450	-	-	913	-
HCM Lane V/C Ratio	0.027	-	-	0.02	-
HCM Control Delay (s)	13.2	-	-	9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

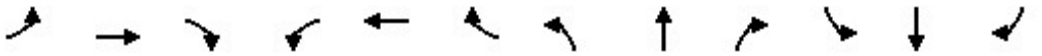
Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	22	206	6	14	314
Future Vol, veh/h	11	22	206	6	14	314
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	24	229	7	16	349

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	253	0	0	246	0
Stage 1	243	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	443	786	-	-	1320	-
Stage 1	797	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	428	772	-	-	1308	-
Mov Cap-2 Maneuver	428	-	-	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	609	1308	-
HCM Lane V/C Ratio	-	-	0.06	0.012	-
HCM Control Delay (s)	-	-	11.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

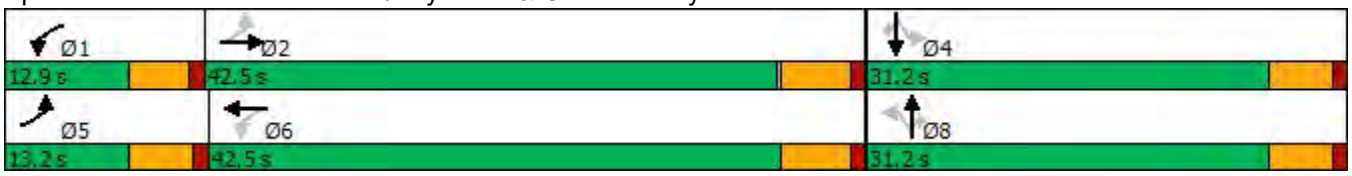


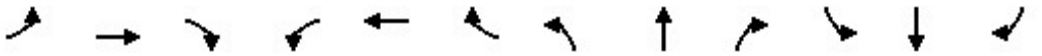
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	524	30	139	372	71	104	91	150	162	84	232
Future Volume (vph)	182	524	30	139	372	71	104	91	150	162	84	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1827	0	1770	1792	0	0	1814	1583	1770	1863	1583
Flt Permitted	0.304			0.185				0.783		0.556		
Satd. Flow (perm)	562	1827	0	343	1792	0	0	1447	1520	1021	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				167			258
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		726.9			101.2			69.3			258.5	
Travel Time (s)		52.3			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	615	0	154	492	0	0	217	167	180	93	258
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	36.9	28.5		37.1	28.3			18.4	18.4	18.4	18.4	18.4
Actuated g/C Ratio	0.52	0.40		0.52	0.40			0.26	0.26	0.26	0.26	0.26
v/c Ratio	0.47	0.84		0.45	0.69			0.58	0.32	0.69	0.19	0.44
Control Delay	11.8	31.7		12.3	23.5			31.3	6.0	39.8	23.1	5.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	31.7		12.3	23.5			31.3	6.0	39.8	23.1	5.9
LOS	B	C		B	C			C	A	D	C	A
Approach Delay		26.8			20.8			20.3			20.4	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	11.5	72.2		8.4	51.8			26.0	0.0	22.2	9.9	0.0
Queue Length 95th (m)	24.8	#128.7		19.1	93.2			50.8	13.3	47.0	22.5	16.1
Internal Link Dist (m)		702.9			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	435	1002		346	980			552	683	389	711	747
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.46	0.61		0.45	0.50			0.39	0.24	0.46	0.13	0.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 71.4			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 67.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	524	30	139	372	71	104	91	150	162	84	232
Future Volume (veh/h)	182	524	30	139	372	71	104	91	150	162	84	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	582	33	154	413	79	116	101	167	180	93	258
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	392	704	40	310	582	111	270	215	506	293	607	510
Arrive On Green	0.09	0.40	0.40	0.08	0.39	0.39	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1738	99	1781	1510	289	618	664	1561	1104	1870	1570
Grp Volume(v), veh/h	202	0	615	154	0	492	217	0	167	180	93	258
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	0	1799	1282	0	1561	1104	1870	1570
Q Serve(g_s), s	5.4	0.0	24.0	4.1	0.0	18.5	8.4	0.0	6.5	12.7	2.8	10.6
Cycle Q Clear(g_c), s	5.4	0.0	24.0	4.1	0.0	18.5	11.2	0.0	6.5	23.9	2.8	10.6
Prop In Lane	1.00		0.05	1.00		0.16	0.53		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	392	0	744	310	0	693	485	0	506	293	607	510
V/C Ratio(X)	0.52	0.00	0.83	0.50	0.00	0.71	0.45	0.00	0.33	0.61	0.15	0.51
Avail Cap(c_a), veh/h	407	0	849	353	0	832	486	0	507	294	608	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	21.3	16.6	0.0	20.8	22.0	0.0	20.4	31.8	19.2	21.8
Incr Delay (d2), s/veh	1.0	0.0	6.1	1.8	0.0	2.7	0.9	0.0	0.5	3.7	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	12.4	2.0	0.0	9.0	3.8	0.0	2.7	4.0	1.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	27.4	18.4	0.0	23.5	23.0	0.0	21.0	35.6	19.3	22.7
LnGrp LOS	B	A	C	B	A	C	C	A	C	D	B	C
Approach Vol, veh/h		817			646			384			531	
Approach Delay, s/veh		24.6			22.3			22.1			26.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	37.9		31.2	12.5	36.3		31.2				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	6.1	26.0		25.9	7.4	20.5		13.2				
Green Ext Time (p_c), s	0.2	6.4		0.0	0.1	8.0		4.1				

Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	836	0	0	582	0	0
Future Vol, veh/h	836	0	0	582	0	0
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	10	2	2
Mvmt Flow	909	0	0	633	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	919	0	-	929
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	743	-	0	324
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	736	-	-	318
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	736	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

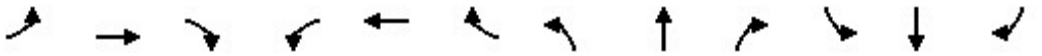
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	346	0	0	253
Future Vol, veh/h	0	0	346	0	0	253
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	384	0	0	281

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	685	404	0	0	394	0
Stage 1	394	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	414	647	-	-	1165	-
Stage 1	681	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	407	635	-	-	1154	-
Mov Cap-2 Maneuver	407	-	-	-	-	-
Stage 1	675	-	-	-	-	-
Stage 2	752	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1154	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	164	471	70	156	470	84	70	84	88	131	144	366
Future Volume (vph)	164	471	70	156	470	84	70	84	88	131	144	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1802	0	1770	1794	0	0	1822	1583	1770	1863	1583
Flt Permitted	0.228			0.241				0.784		0.654		
Satd. Flow (perm)	423	1802	0	446	1794	0	0	1452	1520	1199	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			13				93			379
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		715.1			101.2			69.3			258.5	
Travel Time (s)		51.5			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	173	570	0	164	583	0	0	162	93	138	152	385
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	35.7	27.5		36.2	27.4			15.6	15.6	15.6	15.6	15.6
Actuated g/C Ratio	0.53	0.41		0.53	0.40			0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.46	0.77		0.41	0.79			0.49	0.22	0.50	0.35	0.60
Control Delay	11.0	25.7		10.1	27.0			29.3	7.0	31.1	25.7	7.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	25.7		10.1	27.0			29.3	7.0	31.1	25.7	7.3
LOS	B	C		B	C			C	A	C	C	A
Approach Delay		22.3			23.3			21.2			16.3	
Approach LOS		C			C			C			B	
Queue Length 50th (m)	8.1	57.0		7.5	59.3			17.9	0.0	15.3	16.3	0.6
Queue Length 95th (m)	21.4	114.1		20.2	118.6			38.0	10.2	34.1	34.3	20.2
Internal Link Dist (m)		691.1			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	393	1049		404	1038			587	670	484	753	848
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.44	0.54		0.41	0.56			0.28	0.14	0.29	0.20	0.45

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 67.7			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 20.8		Intersection LOS: C	
Intersection Capacity Utilization 77.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	471	70	156	470	84	70	84	88	131	144	366
Future Volume (veh/h)	164	471	70	156	470	84	70	84	88	131	144	366
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	496	74	164	495	88	74	88	93	138	152	385
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	350	663	99	364	634	113	199	213	460	299	553	464
Arrive On Green	0.08	0.42	0.42	0.08	0.41	0.41	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	1575	235	1781	1531	272	440	722	1558	1191	1870	1569
Grp Volume(v), veh/h	173	0	570	164	0	583	162	0	93	138	152	385
Grp Sat Flow(s),veh/h/ln	1781	0	1810	1781	0	1803	1162	0	1558	1191	1870	1569
Q Serve(g_s), s	4.1	0.0	20.2	3.9	0.0	21.2	4.7	0.0	3.4	8.2	4.7	17.4
Cycle Q Clear(g_c), s	4.1	0.0	20.2	3.9	0.0	21.2	9.4	0.0	3.4	17.7	4.7	17.4
Prop In Lane	1.00		0.13	1.00		0.15	0.46		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	350	0	762	364	0	747	413	0	460	299	553	464
V/C Ratio(X)	0.49	0.00	0.75	0.45	0.00	0.78	0.39	0.00	0.20	0.46	0.28	0.83
Avail Cap(c_a), veh/h	395	0	883	413	0	880	470	0	534	355	641	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	18.6	13.9	0.0	19.2	22.0	0.0	20.0	29.5	20.5	24.9
Incr Delay (d2), s/veh	1.1	0.0	3.0	1.2	0.0	4.4	0.9	0.0	0.3	1.1	0.3	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	9.8	1.8	0.0	10.5	2.7	0.0	1.4	2.6	2.3	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	21.6	15.2	0.0	23.6	22.8	0.0	20.3	30.6	20.8	34.3
LnGrp LOS	B	A	C	B	A	C	C	A	C	C	C	C
Approach Vol, veh/h		743			747			255			675	
Approach Delay, s/veh		20.2			21.7			21.9			30.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	37.4		27.6	11.3	36.9		27.6				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.9	22.2		19.7	6.1	23.2		11.4				
Green Ext Time (p_c), s	0.2	7.5		2.7	0.1	8.2		3.0				

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	690	0	0	710	0	0
Future Vol, veh/h	690	0	0	710	0	0
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	742	0	0	763	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	752	0	-	762
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	858	-	0	405
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	850	-	-	398
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	850	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

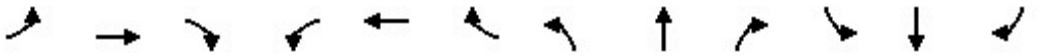
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	243	0	0	370
Future Vol, veh/h	0	0	243	0	0	370
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	253	0	0	385

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	658	273	0	0	263	0
Stage 1	263	-	-	-	-	-
Stage 2	395	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	429	766	-	-	1301	-
Stage 1	781	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	421	752	-	-	1289	-
Mov Cap-2 Maneuver	421	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	675	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1289	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

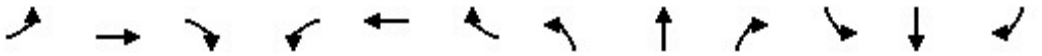


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	451	26	118	316	60	101	86	128	138	75	197
Future Volume (vph)	155	451	26	118	316	60	101	86	128	138	75	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1827	0	1770	1749	0	0	1814	1583	1770	1863	1583
Flt Permitted	0.349			0.315				0.787		0.582		
Satd. Flow (perm)	645	1827	0	583	1749	0	0	1455	1520	1068	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				142			219
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		726.9			101.2			69.3			258.5	
Travel Time (s)		52.3			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	530	0	131	418	0	0	208	142	153	83	219
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	33.4	27.0		32.0	23.3			16.1	16.1	16.1	16.1	16.1
Actuated g/C Ratio	0.52	0.42		0.50	0.36			0.25	0.25	0.25	0.25	0.25
v/c Ratio	0.36	0.69		0.30	0.65			0.57	0.29	0.57	0.18	0.40
Control Delay	9.6	22.8		9.0	22.1			29.4	6.2	32.3	21.7	5.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	22.8		9.0	22.1			29.4	6.2	32.3	21.7	5.9
LOS	A	C		A	C			C	A	C	C	A
Approach Delay		19.5			18.9			20.0			17.7	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	8.0	51.7		5.8	37.1			21.3	0.0	15.7	7.6	0.0
Queue Length 95th (m)	21.4	103.1		16.6	76.6			48.3	12.2	38.8	20.4	14.9
Internal Link Dist (m)		702.9			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	483	1121		449	1068			621	730	456	795	782
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.36	0.47		0.29	0.39			0.33	0.19	0.34	0.10	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 64.3			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	451	26	118	316	60	101	86	128	138	75	197
Future Volume (veh/h)	155	451	26	118	316	60	101	86	128	138	75	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1811	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	501	29	131	351	67	112	96	142	153	83	219
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	3	2	2	6	2	2	2	2	2	2	2
Cap, veh/h	434	676	39	368	559	107	277	216	479	310	575	483
Arrive On Green	0.08	0.39	0.39	0.08	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	1735	100	1781	1475	281	643	701	1559	1132	1870	1570
Grp Volume(v), veh/h	172	0	530	131	0	418	208	0	142	153	83	219
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	0	1756	1344	0	1559	1132	1870	1570
Q Serve(g_s), s	4.0	0.0	17.3	3.0	0.0	13.5	6.5	0.0	4.8	8.9	2.2	7.8
Cycle Q Clear(g_c), s	4.0	0.0	17.3	3.0	0.0	13.5	8.7	0.0	4.8	17.6	2.2	7.8
Prop In Lane	1.00		0.05	1.00		0.16	0.54		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	434	0	715	368	0	666	493	0	479	310	575	483
V/C Ratio(X)	0.40	0.00	0.74	0.36	0.00	0.63	0.42	0.00	0.30	0.49	0.14	0.45
Avail Cap(c_a), veh/h	487	0	975	431	0	933	581	0	582	384	698	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	18.3	13.3	0.0	17.6	19.6	0.0	18.4	26.9	17.5	19.4
Incr Delay (d2), s/veh	0.6	0.0	2.0	0.8	0.0	1.4	0.8	0.0	0.5	1.2	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	8.3	1.4	0.0	6.2	3.1	0.0	2.0	2.7	1.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	0.0	20.3	14.2	0.0	19.0	20.4	0.0	18.9	28.2	17.6	20.1
LnGrp LOS	B	A	C	B	A	B	C	A	B	C	B	C
Approach Vol, veh/h		702			549			350			455	
Approach Delay, s/veh		18.6			17.8			19.8			22.3	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	32.6		26.6	11.1	31.9		26.6				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	5.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.0	19.3		19.6	6.0	15.5		10.7				
Green Ext Time (p_c), s	0.2	7.8		1.8	0.2	8.0		4.2				

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	709	7	5	494	0	13
Future Vol, veh/h	709	7	5	494	0	13
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	10	2	2
Mvmt Flow	771	8	5	537	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	789	0	-	795
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	831	-	0	388
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	823	-	-	381
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	381	-	-	823	-
HCM Lane V/C Ratio	0.037	-	-	0.007	-
HCM Control Delay (s)	14.8	-	-	9.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

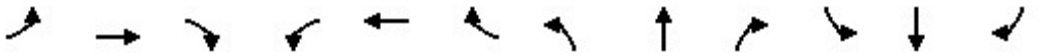
Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	21	293	4	4	215
Future Vol, veh/h	8	21	293	4	4	215
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	23	326	4	4	239

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	595	348	0	0	340	0
Stage 1	338	-	-	-	-	-
Stage 2	257	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	467	695	-	-	1219	-
Stage 1	722	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	457	682	-	-	1208	-
Mov Cap-2 Maneuver	457	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	776	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	600	1208	-
HCM Lane V/C Ratio	-	-	0.054	0.004	-
HCM Control Delay (s)	-	-	11.3	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	419	59	132	399	72	72	80	75	111	136	310
Future Volume (vph)	139	419	59	132	399	72	72	80	75	111	136	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1804	0	1770	1794	0	0	1820	1583	1770	1863	1583
Flt Permitted	0.317			0.314				0.778		0.656		
Satd. Flow (perm)	586	1804	0	581	1794	0	0	1440	1520	1202	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			13				93			326
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		715.1			101.2			69.3			258.5	
Travel Time (s)		51.5			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	503	0	139	496	0	0	160	79	117	143	326
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	29.9	23.9		30.3	23.8			14.1	14.1	14.1	14.1	14.1
Actuated g/C Ratio	0.50	0.40		0.51	0.40			0.24	0.24	0.24	0.24	0.24
v/c Ratio	0.32	0.69		0.30	0.68			0.47	0.18	0.41	0.32	0.53
Control Delay	8.3	21.3		7.9	21.1			27.7	5.6	27.4	24.1	6.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	21.3		7.9	21.1			27.7	5.6	27.4	24.1	6.7
LOS	A	C		A	C			C	A	C	C	A
Approach Delay		18.3			18.3			20.4			15.1	
Approach LOS		B			B			C			B	
Queue Length 50th (m)	5.8	43.9		5.4	43.2			15.4	0.0	11.1	13.2	0.0
Queue Length 95th (m)	16.7	90.0		15.8	88.7			37.8	7.9	29.7	32.7	18.3
Internal Link Dist (m)		691.1			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	474	1203		475	1191			700	786	584	906	915
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.31	0.42		0.29	0.42			0.23	0.10	0.20	0.16	0.36

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 59.3			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 17.6		Intersection LOS: B	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	419	59	132	399	72	72	80	75	111	136	310
Future Volume (veh/h)	139	419	59	132	399	72	72	80	75	111	136	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	441	62	139	420	76	76	84	79	117	143	326
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	404	635	89	405	602	109	214	210	445	312	534	448
Arrive On Green	0.08	0.40	0.40	0.08	0.39	0.39	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	1589	223	1781	1526	276	472	737	1557	1209	1870	1568
Grp Volume(v), veh/h	146	0	503	139	0	496	160	0	79	117	143	326
Grp Sat Flow(s),veh/h/ln	1781	0	1812	1781	0	1802	1210	0	1557	1209	1870	1568
Q Serve(g_s), s	3.1	0.0	15.5	3.0	0.0	15.5	3.8	0.0	2.6	6.0	4.0	12.6
Cycle Q Clear(g_c), s	3.1	0.0	15.5	3.0	0.0	15.5	7.8	0.0	2.6	13.8	4.0	12.6
Prop In Lane	1.00		0.12	1.00		0.15	0.47		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	404	0	724	405	0	711	424	0	445	312	534	448
V/C Ratio(X)	0.36	0.00	0.69	0.34	0.00	0.70	0.38	0.00	0.18	0.38	0.27	0.73
Avail Cap(c_a), veh/h	467	0	998	470	0	992	552	0	603	435	724	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	0.0	16.8	12.0	0.0	17.0	19.8	0.0	18.1	25.7	18.6	21.7
Incr Delay (d2), s/veh	0.5	0.0	1.2	0.7	0.0	1.8	0.8	0.0	0.3	0.7	0.3	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	7.3	1.4	0.0	7.3	2.4	0.0	1.0	1.9	1.9	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	0.0	18.0	12.7	0.0	18.8	20.5	0.0	18.3	26.4	18.8	24.5
LnGrp LOS	B	A	B	B	A	B	C	A	B	C	B	C
Approach Vol, veh/h		649			635			239			586	
Approach Delay, s/veh		16.8			17.4			19.8			23.5	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	32.4		24.4	10.8	32.0		24.4				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	5.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.0	17.5		15.8	5.1	17.5		9.8				
Green Ext Time (p_c), s	0.2	7.9		3.4	0.2	9.0		3.1				

Intersection Summary	
HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	586	19	17	603	0	11
Future Vol, veh/h	586	19	17	603	0	11
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	637	21	18	655	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	668	0	-	668
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	922	-	0	458
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	913	-	-	450
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	450	-	-	913	-
HCM Lane V/C Ratio	0.027	-	-	0.02	-
HCM Control Delay (s)	13.2	-	-	9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

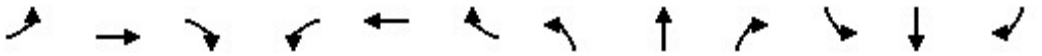
Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	22	206	6	14	314
Future Vol, veh/h	11	22	206	6	14	314
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	24	229	7	16	349

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	253	0	0	246	0
Stage 1	243	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	443	786	-	-	1320	-
Stage 1	797	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	428	772	-	-	1308	-
Mov Cap-2 Maneuver	428	-	-	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	609	1308	-
HCM Lane V/C Ratio	-	-	0.06	0.012	-
HCM Control Delay (s)	-	-	11.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

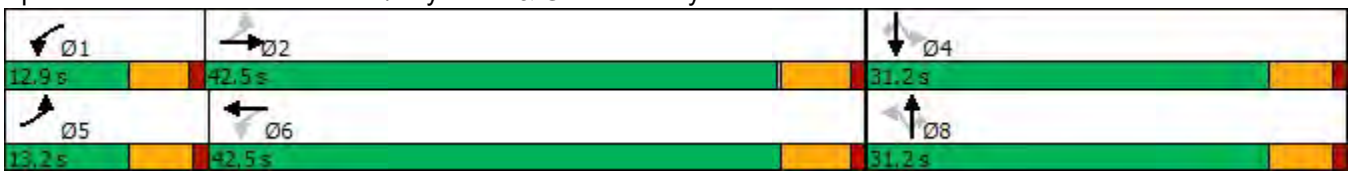


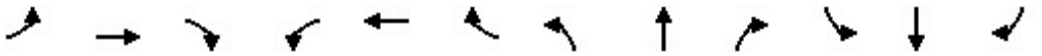
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	524	30	139	372	71	104	91	150	162	84	232
Future Volume (vph)	182	524	30	139	372	71	104	91	150	162	84	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1827	0	1770	1792	0	0	1814	1583	1770	1863	1583
Flt Permitted	0.304			0.185				0.783		0.556		
Satd. Flow (perm)	562	1827	0	343	1792	0	0	1447	1520	1021	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				167			258
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		726.9			101.2			69.3			258.5	
Travel Time (s)		52.3			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	615	0	154	492	0	0	217	167	180	93	258
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	36.9	28.5		37.1	28.3			18.4	18.4	18.4	18.4	18.4
Actuated g/C Ratio	0.52	0.40		0.52	0.40			0.26	0.26	0.26	0.26	0.26
v/c Ratio	0.47	0.84		0.45	0.69			0.58	0.32	0.69	0.19	0.44
Control Delay	11.8	31.7		12.3	23.5			31.3	6.0	39.8	23.1	5.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	31.7		12.3	23.5			31.3	6.0	39.8	23.1	5.9
LOS	B	C		B	C			C	A	D	C	A
Approach Delay		26.8			20.8			20.3			20.4	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	11.5	72.2		8.4	51.8			26.0	0.0	22.2	9.9	0.0
Queue Length 95th (m)	24.8	#128.7		19.1	93.2			50.8	13.3	47.0	22.5	16.1
Internal Link Dist (m)		702.9			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	435	1002		346	980			552	683	389	711	747
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.46	0.61		0.45	0.50			0.39	0.24	0.46	0.13	0.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 71.4			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 67.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	524	30	139	372	71	104	91	150	162	84	232
Future Volume (veh/h)	182	524	30	139	372	71	104	91	150	162	84	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	582	33	154	413	79	116	101	167	180	93	258
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	392	704	40	310	582	111	270	215	506	293	607	510
Arrive On Green	0.09	0.40	0.40	0.08	0.39	0.39	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1738	99	1781	1510	289	618	664	1561	1104	1870	1570
Grp Volume(v), veh/h	202	0	615	154	0	492	217	0	167	180	93	258
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	0	1799	1282	0	1561	1104	1870	1570
Q Serve(g_s), s	5.4	0.0	24.0	4.1	0.0	18.5	8.4	0.0	6.5	12.7	2.8	10.6
Cycle Q Clear(g_c), s	5.4	0.0	24.0	4.1	0.0	18.5	11.2	0.0	6.5	23.9	2.8	10.6
Prop In Lane	1.00		0.05	1.00		0.16	0.53		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	392	0	744	310	0	693	485	0	506	293	607	510
V/C Ratio(X)	0.52	0.00	0.83	0.50	0.00	0.71	0.45	0.00	0.33	0.61	0.15	0.51
Avail Cap(c_a), veh/h	407	0	849	353	0	832	486	0	507	294	608	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	21.3	16.6	0.0	20.8	22.0	0.0	20.4	31.8	19.2	21.8
Incr Delay (d2), s/veh	1.0	0.0	6.1	1.8	0.0	2.7	0.9	0.0	0.5	3.7	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	12.4	2.0	0.0	9.0	3.8	0.0	2.7	4.0	1.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	27.4	18.4	0.0	23.5	23.0	0.0	21.0	35.6	19.3	22.7
LnGrp LOS	B	A	C	B	A	C	C	A	C	D	B	C
Approach Vol, veh/h		817			646			384			531	
Approach Delay, s/veh		24.6			22.3			22.1			26.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	37.9		31.2	12.5	36.3		31.2				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	6.1	26.0		25.9	7.4	20.5		13.2				
Green Ext Time (p_c), s	0.2	6.4		0.0	0.1	8.0		4.1				

Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	836	0	0	582	0	0
Future Vol, veh/h	836	0	0	582	0	0
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	10	2	2
Mvmt Flow	909	0	0	633	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	919	0	-	929
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	743	-	0	324
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	736	-	-	318
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	736	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

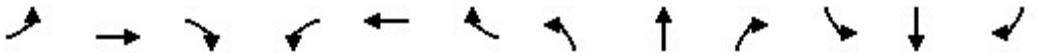
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	346	0	0	253
Future Vol, veh/h	0	0	346	0	0	253
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	384	0	0	281

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	685	404	0	0	394	0
Stage 1	394	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	414	647	-	-	1165	-
Stage 1	681	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	407	635	-	-	1154	-
Mov Cap-2 Maneuver	407	-	-	-	-	-
Stage 1	675	-	-	-	-	-
Stage 2	752	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1154	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	164	471	70	156	470	84	70	84	88	131	144	366
Future Volume (vph)	164	471	70	156	470	84	70	84	88	131	144	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1802	0	1770	1794	0	0	1822	1583	1770	1863	1583
Flt Permitted	0.228			0.241				0.784		0.654		
Satd. Flow (perm)	423	1802	0	446	1794	0	0	1452	1520	1199	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			13				93			379
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		715.1			101.2			69.3			258.5	
Travel Time (s)		51.5			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	173	570	0	164	583	0	0	162	93	138	152	385
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	35.7	27.5		36.2	27.4			15.6	15.6	15.6	15.6	15.6
Actuated g/C Ratio	0.53	0.41		0.53	0.40			0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.46	0.77		0.41	0.79			0.49	0.22	0.50	0.35	0.60
Control Delay	11.0	25.7		10.1	27.0			29.3	7.0	31.1	25.7	7.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	25.7		10.1	27.0			29.3	7.0	31.1	25.7	7.3
LOS	B	C		B	C			C	A	C	C	A
Approach Delay		22.3			23.3			21.2			16.3	
Approach LOS		C			C			C			B	
Queue Length 50th (m)	8.1	57.0		7.5	59.3			17.9	0.0	15.3	16.3	0.6
Queue Length 95th (m)	21.4	114.1		20.2	118.6			38.0	10.2	34.1	34.3	20.2
Internal Link Dist (m)		691.1			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	393	1049		404	1038			587	670	484	753	848
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.44	0.54		0.41	0.56			0.28	0.14	0.29	0.20	0.45

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 67.7			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 20.8		Intersection LOS: C	
Intersection Capacity Utilization 77.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	471	70	156	470	84	70	84	88	131	144	366
Future Volume (veh/h)	164	471	70	156	470	84	70	84	88	131	144	366
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	496	74	164	495	88	74	88	93	138	152	385
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	350	663	99	364	634	113	199	213	460	299	553	464
Arrive On Green	0.08	0.42	0.42	0.08	0.41	0.41	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	1575	235	1781	1531	272	440	722	1558	1191	1870	1569
Grp Volume(v), veh/h	173	0	570	164	0	583	162	0	93	138	152	385
Grp Sat Flow(s),veh/h/ln	1781	0	1810	1781	0	1803	1162	0	1558	1191	1870	1569
Q Serve(g_s), s	4.1	0.0	20.2	3.9	0.0	21.2	4.7	0.0	3.4	8.2	4.7	17.4
Cycle Q Clear(g_c), s	4.1	0.0	20.2	3.9	0.0	21.2	9.4	0.0	3.4	17.7	4.7	17.4
Prop In Lane	1.00		0.13	1.00		0.15	0.46		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	350	0	762	364	0	747	413	0	460	299	553	464
V/C Ratio(X)	0.49	0.00	0.75	0.45	0.00	0.78	0.39	0.00	0.20	0.46	0.28	0.83
Avail Cap(c_a), veh/h	395	0	883	413	0	880	470	0	534	355	641	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	18.6	13.9	0.0	19.2	22.0	0.0	20.0	29.5	20.5	24.9
Incr Delay (d2), s/veh	1.1	0.0	3.0	1.2	0.0	4.4	0.9	0.0	0.3	1.1	0.3	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	9.8	1.8	0.0	10.5	2.7	0.0	1.4	2.6	2.3	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	21.6	15.2	0.0	23.6	22.8	0.0	20.3	30.6	20.8	34.3
LnGrp LOS	B	A	C	B	A	C	C	A	C	C	C	C
Approach Vol, veh/h		743			747			255			675	
Approach Delay, s/veh		20.2			21.7			21.9			30.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	37.4		27.6	11.3	36.9		27.6				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.9	22.2		19.7	6.1	23.2		11.4				
Green Ext Time (p_c), s	0.2	7.5		2.7	0.1	8.2		3.0				

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	690	0	0	710	0	0
Future Vol, veh/h	690	0	0	710	0	0
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	742	0	0	763	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	752	0	-	762
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	858	-	0	405
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	850	-	-	398
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	850	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

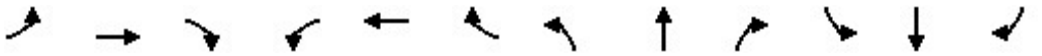
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	243	0	0	370
Future Vol, veh/h	0	0	243	0	0	370
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	253	0	0	385

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	658	273	0	0	263	0
Stage 1	263	-	-	-	-	-
Stage 2	395	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	429	766	-	-	1301	-
Stage 1	781	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	421	752	-	-	1289	-
Mov Cap-2 Maneuver	421	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	675	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1289	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

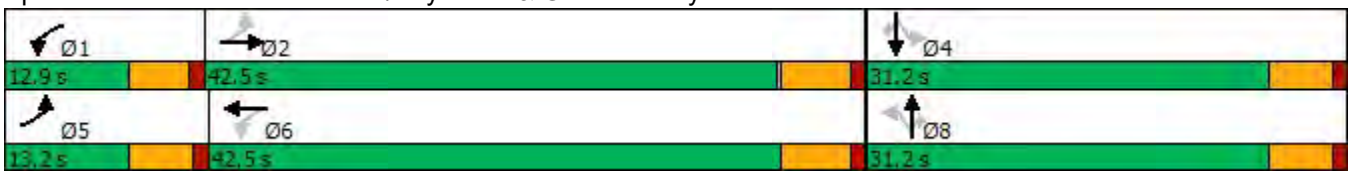


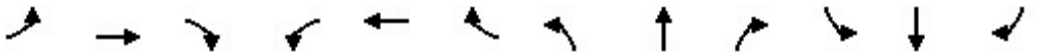
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	531	30	139	372	71	117	99	150	162	88	232
Future Volume (vph)	182	531	30	139	372	71	117	99	150	162	88	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1827	0	1770	1792	0	0	1814	1583	1770	1863	1583
Flt Permitted	0.303			0.177				0.778		0.516		
Satd. Flow (perm)	561	1827	0	330	1792	0	0	1438	1520	948	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				167			258
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		726.9			101.2			69.3			258.5	
Travel Time (s)		52.3			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	623	0	154	492	0	0	240	167	180	98	258
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.9	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		14.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	37.5	29.2		37.7	28.9			19.1	19.1	19.1	19.1	19.1
Actuated g/C Ratio	0.52	0.40		0.52	0.40			0.26	0.26	0.26	0.26	0.26
v/c Ratio	0.48	0.85		0.47	0.68			0.63	0.32	0.72	0.20	0.43
Control Delay	12.1	32.7		12.8	23.7			33.1	5.9	43.5	23.2	5.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	32.7		12.8	23.7			33.1	5.9	43.5	23.2	5.8
LOS	B	C		B	C			C	A	D	C	A
Approach Delay		27.6			21.1			22.0			21.7	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	12.2	76.5		8.9	53.9			30.0	0.0	23.2	10.8	0.0
Queue Length 95th (m)	24.8	#133.5		19.1	93.2			56.5	13.3	#50.0	23.6	16.1
Internal Link Dist (m)		702.9			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	431	981		337	959			537	672	354	696	736
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.47	0.64		0.46	0.51			0.45	0.25	0.51	0.14	0.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 72.7			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 23.6		Intersection LOS: C	
Intersection Capacity Utilization 68.9%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	531	30	139	372	71	117	99	150	162	88	232
Future Volume (veh/h)	182	531	30	139	372	71	117	99	150	162	88	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	590	33	154	413	79	130	110	167	180	98	258
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	394	708	40	306	585	112	269	208	505	265	605	508
Arrive On Green	0.09	0.41	0.41	0.08	0.39	0.39	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1739	97	1781	1510	289	617	644	1561	1096	1870	1570
Grp Volume(v), veh/h	202	0	623	154	0	492	240	0	167	180	98	258
Grp Sat Flow(s),veh/h/ln	1781	0	1837	1781	0	1799	1262	0	1561	1096	1870	1570
Q Serve(g_s), s	5.4	0.0	24.5	4.1	0.0	18.5	10.1	0.0	6.5	12.9	3.0	10.7
Cycle Q Clear(g_c), s	5.4	0.0	24.5	4.1	0.0	18.5	13.1	0.0	6.5	26.0	3.0	10.7
Prop In Lane	1.00		0.05	1.00		0.16	0.54		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	394	0	748	306	0	697	477	0	505	265	605	508
V/C Ratio(X)	0.51	0.00	0.83	0.50	0.00	0.71	0.50	0.00	0.33	0.68	0.16	0.51
Avail Cap(c_a), veh/h	409	0	845	349	0	828	477	0	505	265	605	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	21.4	16.7	0.0	20.8	22.9	0.0	20.6	33.9	19.4	22.0
Incr Delay (d2), s/veh	1.0	0.0	6.5	1.8	0.0	2.7	1.2	0.0	0.5	6.8	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	12.7	2.0	0.0	9.0	4.3	0.0	2.7	4.3	1.5	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	27.9	18.5	0.0	23.4	24.1	0.0	21.1	40.7	19.5	22.8
LnGrp LOS	B	A	C	B	A	C	C	A	C	D	B	C
Approach Vol, veh/h		825			646			407			536	
Approach Delay, s/veh		25.0			22.3			22.9			28.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	38.2		31.2	12.5	36.6		31.2				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	8.0	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	6.1	26.5		28.0	7.4	20.5		15.1				
Green Ext Time (p_c), s	0.2	6.3		0.0	0.1	8.0		3.9				

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	836	7	5	582	0	13
Future Vol, veh/h	836	7	5	582	0	13
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	909	8	5	633	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	927	0	-	933
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	737	-	0	323
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	730	-	-	317
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	317	-	-	730	-
HCM Lane V/C Ratio	0.045	-	-	0.007	-
HCM Control Delay (s)	16.9	-	-	10	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

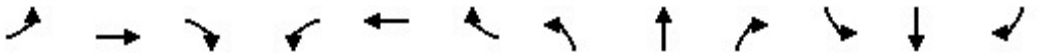
Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	21	346	4	4	253
Future Vol, veh/h	8	21	346	4	4	253
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	23	384	4	4	281

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	695	406	0	0	398	0
Stage 1	396	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	408	645	-	-	1161	-
Stage 1	680	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	399	633	-	-	1150	-
Mov Cap-2 Maneuver	399	-	-	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	545	1150	-
HCM Lane V/C Ratio	-	-	0.059	0.004	-
HCM Control Delay (s)	-	-	12	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

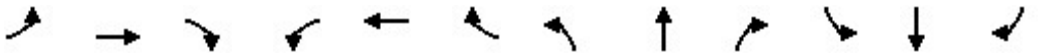


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	164	491	70	156	470	84	83	93	88	131	158	366
Future Volume (vph)	164	491	70	156	470	84	83	93	88	131	158	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1802	0	1770	1794	0	0	1820	1583	1770	1863	1583
Flt Permitted	0.220			0.234				0.767		0.613		
Satd. Flow (perm)	408	1802	0	433	1794	0	0	1420	1520	1124	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			13				93			364
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		715.1			101.2			69.3			258.5	
Travel Time (s)		51.5			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	173	591	0	164	583	0	0	185	93	138	166	385
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.2	42.5		12.0	42.5		31.2	31.2	31.2	31.2	31.2	31.2
Total Split (%)	15.2%	48.9%		13.8%	48.9%		35.9%	35.9%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	36.7	28.5		35.8	27.7			16.3	16.3	16.3	16.3	16.3
Actuated g/C Ratio	0.53	0.42		0.52	0.40			0.24	0.24	0.24	0.24	0.24
v/c Ratio	0.46	0.78		0.44	0.80			0.55	0.22	0.52	0.38	0.60
Control Delay	11.2	25.9		11.0	27.4			31.2	7.0	32.1	25.9	8.0
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	25.9		11.0	27.4			31.2	7.0	32.1	25.9	8.0
LOS	B	C		B	C			C	A	C	C	A
Approach Delay		22.5			23.8			23.1			17.2	
Approach LOS		C			C			C			B	
Queue Length 50th (m)	8.3	59.5		7.7	60.4			21.0	0.0	15.5	18.0	2.1
Queue Length 95th (m)	21.4	117.4		20.2	118.6			43.3	10.2	34.6	36.9	23.2
Internal Link Dist (m)		691.1			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	388	1059		371	1022			565	661	447	742	832
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.45	0.56		0.44	0.57			0.33	0.14	0.31	0.22	0.46

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 68.6			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 78.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	491	70	156	470	84	83	93	88	131	158	366
Future Volume (veh/h)	164	491	70	156	470	84	83	93	88	131	158	366
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	517	74	164	495	88	87	98	93	138	166	385
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	338	657	94	337	623	111	204	208	483	278	580	487
Arrive On Green	0.08	0.41	0.41	0.08	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	1585	227	1781	1530	272	442	671	1559	1183	1870	1570
Grp Volume(v), veh/h	173	0	591	164	0	583	185	0	93	138	166	385
Grp Sat Flow(s),veh/h/ln	1781	0	1811	1781	0	1803	1112	0	1559	1183	1870	1570
Q Serve(g_s), s	4.3	0.0	22.3	4.1	0.0	22.2	6.7	0.0	3.4	8.7	5.3	17.6
Cycle Q Clear(g_c), s	4.3	0.0	22.3	4.1	0.0	22.2	12.0	0.0	3.4	20.7	5.3	17.6
Prop In Lane	1.00		0.13	1.00		0.15	0.47		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	0	751	337	0	734	412	0	483	278	580	487
V/C Ratio(X)	0.51	0.00	0.79	0.49	0.00	0.79	0.45	0.00	0.19	0.50	0.29	0.79
Avail Cap(c_a), veh/h	376	0	854	361	0	850	438	0	517	303	619	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	20.0	15.2	0.0	20.4	22.9	0.0	19.9	31.5	20.5	24.8
Incr Delay (d2), s/veh	1.2	0.0	4.4	1.6	0.0	5.1	1.1	0.0	0.3	1.4	0.3	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	11.1	2.0	0.0	11.2	3.3	0.0	1.4	2.8	2.6	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	24.4	16.8	0.0	25.5	24.0	0.0	20.1	32.9	20.8	32.4
LnGrp LOS	B	A	C	B	A	C	C	A	C	C	C	C
Approach Vol, veh/h		764			747			278			689	
Approach Delay, s/veh		22.6			23.6			22.7			29.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	38.0		29.5	11.5	37.5		29.5				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	7.1	37.0		26.0	8.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	6.1	24.3		22.7	6.3	24.2		14.0				
Green Ext Time (p_c), s	0.1	7.0		1.6	0.1	7.7		3.0				

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	690	19	17	710	0	11
Future Vol, veh/h	690	19	17	710	0	11
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	750	21	18	772	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	781	0	-	781
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	837	-	0	395
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	829	-	-	388
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	388	-	-	829	-
HCM Lane V/C Ratio	0.031	-	-	0.022	-
HCM Control Delay (s)	14.6	-	-	9.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	22	243	6	14	370
Future Vol, veh/h	11	22	243	6	14	370
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	24	270	7	16	411

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	737	294	0	0	287	0
Stage 1	284	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	386	745	-	-	1275	-
Stage 1	764	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	373	731	-	-	1263	-
Mov Cap-2 Maneuver	373	-	-	-	-	-
Stage 1	757	-	-	-	-	-
Stage 2	624	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	554	1263	-
HCM Lane V/C Ratio	-	-	0.066	0.012	-
HCM Control Delay (s)	-	-	12	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	531	30	139	372	71	117	99	150	162	88	232
Future Volume (vph)	182	531	30	139	372	71	117	99	150	162	88	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	25.0		0.0	0.0		30.0	35.0		35.0
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (m)	7.6			35.0			7.6			7.6		
Satd. Flow (prot)	1770	1827	0	1770	1792	0	0	1814	1583	1770	1863	1583
Flt Permitted	0.276			0.201				0.778		0.525		
Satd. Flow (perm)	511	1827	0	373	1792	0	0	1438	1520	965	1863	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				167			258
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		726.9			101.2			69.3			258.5	
Travel Time (s)		52.3			7.3			5.0			18.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	623	0	154	492	0	0	240	167	180	98	258
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.2	25.5		10.9	27.5		26.2	26.2	26.2	21.2	21.2	21.2
Total Split (s)	13.0	44.2		11.0	42.2		31.7	31.7	31.7	31.7	31.7	31.7
Total Split (%)	15.0%	50.9%		12.7%	48.6%		36.5%	36.5%	36.5%	36.5%	36.5%	36.5%
Yellow Time (s)	4.2	4.5		3.9	4.5		4.2	4.2	4.2	4.2	4.2	4.2
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.5		4.9	5.5			5.2	5.2	5.2	5.2	5.2
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Act Effct Green (s)	37.1	28.8		34.1	27.0			18.9	18.9	18.9	18.9	18.9
Actuated g/C Ratio	0.53	0.41		0.48	0.38			0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.49	0.83		0.50	0.71			0.62	0.32	0.70	0.20	0.43
Control Delay	12.5	30.1		14.3	24.8			31.8	5.9	40.3	22.5	5.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	30.1		14.3	24.8			31.8	5.9	40.3	22.5	5.7
LOS	B	C		B	C			C	A	D	C	A
Approach Delay		25.8			22.3			21.2			20.4	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	11.7	70.5		8.6	52.1			27.9	0.0	21.4	10.0	0.0
Queue Length 95th (m)	25.3	125.5		19.5	93.9			56.0	13.2	47.7	23.3	15.9
Internal Link Dist (m)		702.9			77.2			45.3			234.5	
Turn Bay Length (m)	20.0			25.0					30.0	35.0		35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	417	1056		306	987			568	701	381	736	764
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.48	0.59		0.50	0.50			0.42	0.24	0.47	0.13	0.34

Intersection Summary			
Area Type:	Other		
Cycle Length: 86.9			
Actuated Cycle Length: 70.6			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 68.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Pratt Rd/Payne Rd & Gibsons Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	531	30	139	372	71	117	99	150	162	88	232
Future Volume (veh/h)	182	531	30	139	372	71	117	99	150	162	88	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	590	33	154	413	79	130	110	167	180	98	258
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	3	2	2	3	2	2	2	2	2	2	2
Cap, veh/h	395	716	40	306	590	113	268	208	506	264	607	509
Arrive On Green	0.09	0.41	0.41	0.07	0.39	0.39	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1739	97	1781	1510	289	618	642	1561	1096	1870	1570
Grp Volume(v), veh/h	202	0	623	154	0	492	240	0	167	180	98	258
Grp Sat Flow(s),veh/h/ln	1781	0	1837	1781	0	1799	1260	0	1561	1096	1870	1570
Q Serve(g_s), s	5.4	0.0	24.7	4.1	0.0	18.7	10.3	0.0	6.6	13.1	3.1	10.9
Cycle Q Clear(g_c), s	5.4	0.0	24.7	4.1	0.0	18.7	13.4	0.0	6.6	26.5	3.1	10.9
Prop In Lane	1.00		0.05	1.00		0.16	0.54		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	0	756	306	0	703	477	0	506	264	607	509
V/C Ratio(X)	0.51	0.00	0.82	0.50	0.00	0.70	0.50	0.00	0.33	0.68	0.16	0.51
Avail Cap(c_a), veh/h	404	0	870	309	0	808	477	0	506	264	607	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	21.4	16.9	0.0	20.9	23.3	0.0	20.9	34.4	19.7	22.3
Incr Delay (d2), s/veh	1.0	0.0	5.8	1.8	0.0	2.7	1.2	0.0	0.5	6.9	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	12.7	2.0	0.0	9.1	4.4	0.0	2.7	4.4	1.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	27.1	18.7	0.0	23.6	24.5	0.0	21.4	41.3	19.8	23.1
LnGrp LOS	B	A	C	B	A	C	C	A	C	D	B	C
Approach Vol, veh/h		825			646			407			536	
Approach Delay, s/veh		24.5			22.4			23.2			28.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	39.1		31.7	12.6	37.4		31.7				
Change Period (Y+Rc), s	4.9	5.5		5.2	5.2	5.5		5.2				
Max Green Setting (Gmax), s	6.1	38.7		26.5	7.8	36.7		26.5				
Max Q Clear Time (g_c+I1), s	6.1	26.7		28.5	7.4	20.7		15.4				
Green Ext Time (p_c), s	0.0	7.0		0.0	0.0	7.8		4.0				

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	836	7	5	582	0	13
Future Vol, veh/h	836	7	5	582	0	13
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	909	8	5	633	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	927	0	-	933
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	737	-	0	323
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	730	-	-	317
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	317	-	-	730	-
HCM Lane V/C Ratio	0.045	-	-	0.007	-
HCM Control Delay (s)	16.9	-	-	10	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	21	346	4	4	253
Future Vol, veh/h	8	21	346	4	4	253
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	23	384	4	4	281

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	695	406	0	0	398	0
Stage 1	396	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	408	645	-	-	1161	-
Stage 1	680	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	399	633	-	-	1150	-
Mov Cap-2 Maneuver	399	-	-	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	545	1150	-
HCM Lane V/C Ratio	-	-	0.059	0.004	-
HCM Control Delay (s)	-	-	12	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-