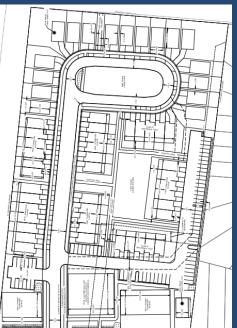




December 16, 2021

Blue Ocean Traffic Impact Study



DesignPoint Project No. 21-166



PREPARED BY:

DesignPoint Engineering & Surveying Ltd.

222 Waterfront Drive, Suite 104 Bedford, NS B4A oH3

PREPARED FOR:

Blue Ocean Estates Ltd.

1479 Lower Water Street, Apt 405 Halifax, NS B3J 3Z3 450 Cowie Hill Road Halifax, NS B3P 2V3





designpoint.ca



TABLE OF CONTENTS

1.0	Introduction1
2.0	Study Area1
3.0	Existing Conditions1
3.1	Multi-modal Transportation1
3.2	Traffic Data Collection2
3.3	Baseline Traffic Volume adjustment2
3.4	Existing Conditions Operational Analysis
4.0	Proposed Development
4.1	Overview6
4.2	Trip Generation7
4.3	Trip Distribution and Assignment7
5.0	Site Assessment
5.1	Access Review
5.2	Future Traffic Volumes9
5.3	Operational Analysis9
5.4	Warrant Analysis15
6.0	Summary15
7.0	Recommendations15

Appendix A – Traffic Volume Count Data Appendix B – Auxiliary Lane Warrant Analysis Appendix C - Synchro Reports



Issued For	Ву	Date
Submission to HRM	ECD	September 24, 2021
Submission to HRM	HFM	December 16 th , 2021
Transportation Engineer Harrison McGrath, P. Eng.	ALD PROFESSION AL CALL	
Ori	ginal Signed	
	H. F. McGrath	

This report was prepared by DesignPoint Engineering & Surveying Ltd. for Blue Ocean Estates Ltd. using the care and skill ordinarily exercised by members of the engineering profession currently practicing under similar circumstances on similar projects in Nova Scotia.

Any use of this report by third parties is done so at their own risk. DesignPoint accepts no responsibility for damages as the result of third party use of this document or any portion thereof.



1.0 INTRODUCTION

DesignPoint Engineering & Surveying Ltd. was engaged to prepare a traffic impact study to support a new residential development located on Shore Drive in Eastern Passage, Nova Scotia. The contents of this study are based on our meeting with Samantha Trask at HRM.

2.0 STUDY AREA

The project site is located at 1818 Share Road (PID 00401125), shown in Figure 1 below. Shore Road at this location is a two-lane paved collector road with gravel shoulders on the water side of the road and a concrete sidewalk on northeast inland side of the road. It has a posted speed of 50 kph.

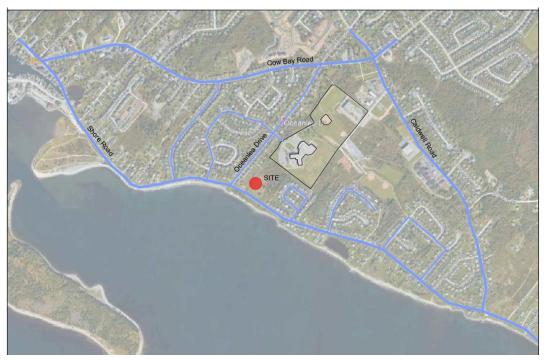


Figure 1 - Project Site Location

3.0 EXISTING CONDITIONS

3.1 MULTI-MODAL TRANSPORTATION

For pedestrians, a concrete sidewalk is located on the northeastern (inland) side of Shore Road that runs as far south as Caldwell Road where it connects to concrete sidewalk on Caldwell Road. There is a concrete sidewalk along the western side of Oceanlea Drive.



There are no bike facilities on Shore Drive nor is the road identified for future cycling projects on Halifax' current Active Transportation Plan.

This portion of Shore Road is serviced by Halifax Transit Route 60 which travels to the Bridge Terminal. The dashed line indicates the peak route, with the solid line showing the regular route, meaning that the site is within the fully serviced portion of the route. This route will connect residents to the Woodside Ferry Terminal, Alderney Ferry Terminal, and Dartmouth Bridge Transit Terminal.



As part of Halifax's Moving Forward Together Plan (MFTP), this fall it is planned that Route 60 will become Corridor Route 6. MFTP describes a corridor route as the following:

The purpose of Corridor Routes is to provide consistent, frequent, service on high demand corridors, connecting residential areas or retail districts with regional destinations like shopping, employment, schools, and services.

What differentiates Corridor Routes from other route types is the sustained demand for transit over thecourse of the day, late into the evenings, and on weekends. These routes are well positioned to support increased residential density along the corridors which will, in turn, will support increases in potential ridership generated by adjacent land uses. (Halifax MFTP, page 37)

Both the current Route 60 and future Route 6 provide direction connections between the site and the Woodside Ferry Terminal. MFTP includes 10 proposed Corridor Routes that will service the Regional Centre, offering a high level of service throughout the week including evenings and weekends.

3.2 TRAFFIC DATA COLLECTION

To capture existing traffic volumes, turning movement counts were carried out on May 5th, May 10th and May 11th using Miovision technology. Peak hour (7-9 am, 4-6 pm) counts were collected for the Shore Drive/Caldwell Road intersection. Peak hour counts (7-9 am, 4-6 pm) as well as noon hours (11am-1pm) were collected at Cow Bay Road/Shore Road we well as Shore Road/Oceanlea Drive. Available traffic data for the area was also collected from HRM Traffic Management for the period 2015-2019.

3.3 BASELINE TRAFFIC VOLUME ADJUSTMENT

COVID-19 has shifted the way that many people work and live, and as a result has had an impact on typical travel patterns. In some places, these shifts have resulted in a reduction of peak hour traffic volumes that may be temporary during the pandemic but have the potential to return to regular volumes once daily life returns to a post-pandemic reality. What this means is that traffic volumes collected right now may not be reasonably representative when used for traffic analyses that consider future growth scenarios.

To mitigate this potential for skewed volume counts, the traffic volume data collected in May 2021 was compared to the HRM counts prior to the pandemic. The data collected in May 2021 was compared to HRM



turning movement counts for Shore Road/Caldwell Road from July 2019 as well as a turning movement count for Shore Road/Cow Bay Road collected in May 2017.

It was observed that the largest difference (30%) occurred during the AM peak hour (7-9 am). Given that a high percentage of trips made during the AM peak hour are Home-to-Work trips, this made sense. There was no real difference during midday (11-1 pm), and only a 10% difference during the PM peak hour. To mitigate for this potential under-counting of traffic volumes, observed traffic volumes were factored by 1.3 for the AM peak hour. No adjustment was made for the midday counts. A summary of the adjusted baseline volumes is shown in the following figure.

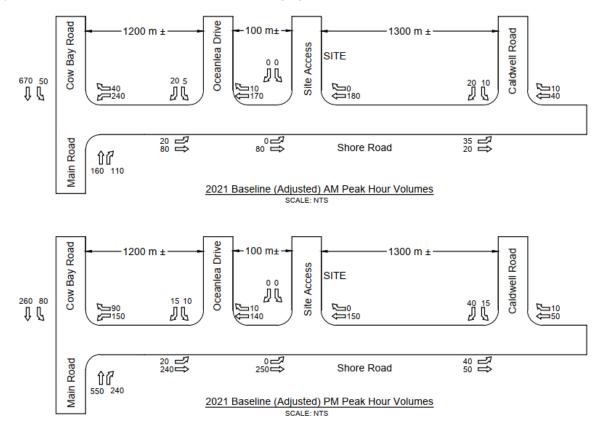


Figure 2 - Baseline Traffic Volumes (Adjusted for COVID Impact)

3.4 EXISTING CONDITIONS OPERATIONAL ANALYSIS

Intersection capacity analysis was carried out to review the existing operations at three existing intersections-Cow Bay Road, Oceanlea Drive, and Caldwell Road. The Synchro 11 software was used to evaluate the performance of the study intersections. The Cow Bay Road intersection was modelled as a signalized intersection. The other two intersections were analyzed as stop controlled intersections. The results for AM and PM peak hours are shown in the following two tables.



Table 1. Intersection Capacity Analysis – 2021 Existing Conditions - AM Peak

	M	ain Road/C	ow Bay Ro	ad & Shore	Road		
		AM Peak H	our - 2021	Existing Tra	affic		
	Shore	e Road	Main	Road	Cow Ba	ay Road	
LOS Criteria	WBL	WBR	NBT	NBR	SBL	SBT	Intersection
Vehicle Count	240	40	160	110	50	670	
Delay (s)	25	6	1	.0	6	12	13
LOS	С	Α		3	А	В	В
v/c	0.62	0.1	0.	32	0.08	0.64	
95th% Queue (m)	40	5	3	5	6	91	
	M	ain Road/C	ow Bay Ro	ad & Shore	Road		
		AM Peak H	our - 2021	Existing Tra	affic		
	Shore	e Road	Shore	Road	Oceanle	ea Drive	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	20	80	170	10	5	20	
Delay (s)	8	-	-	-	10	-	1
LOS	А	-	-	-	А	-	A
v/c	0.02	-	-	-	0.03	-	
95th% Queue (m)	0	-	-	-	0	-	
	M	ain Road/C	ow Bay Ro	ad & Shore	Road		
		AM Peak H	our - 2021	Existing Tra	affic		
	Shore	e Road	Shore	Road	Si	te	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	0	80	180	0	0	0	
Delay (s)	0	-	-	-	0	-	0
LOS	А	-	-	-	А	-	A
v/c	0	-	-	-	0	-	
95th% Queue (m)	0	-	-	-	0	-	
		ain Road/C	-				
		AM Peak H					
	Shore	e Road	Shore	Road	Caldwe	ell Road	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	35	20	40	10	10	20	
Delay (s)	7	-	-	-	9	-	4
LOS	А	-	-	-	А	-	A
v/c	0.03	-	-	-	0.04	-	
95th% Queue (m)	0	-	-	-	0	-	



Table 2. Intersection Capacity Analysis – 2021 Existing Conditions - PM Peak

	M	ain Road/C	ow Bay Ro	ad & Shore	Road		
		PM Peak H	our - 2021 I	Existing Tra	offic		
	Shore	e Road	Main	Road	Cow Ba	ay Road	
LOS Criteria	WBL	WBR	NBT	NBR	SBL	SBT	Intersection
Vehicle Count	120	80	450	200	80	240	
Delay (s)	23	7	1	.5	5	4	13
LOS	С	А	I	3	А	Α	В
v/c	0.42	0.25	0.	64	0.19	0.19	
95th% Queue (m)	23	8	11	17	7	18	
	M	ain Road/C	ow Bay Ro	ad & Shore	Road		
		PM Peak H	our - 2021 l	Existing Tra	offic		
	Shore	e Road	Shore	Road	Oceanle	ea Drive	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	20	240	140	10	10	15	
Delay (s)	8	-	-	-	10	-	1
LOS	А	-	-	-	В	-	A
v/c	0.02	-	-	-	0.04	-	
95th% Queue (m)	0	-	-	-	0	-	
	M	ain Road/C	ow Bay Ro	ad & Shore	Road		
		PM Peak H	our - 2021 I	Existing Tra	offic		
	Shore	e Road	Shore	Road	Si	te	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	0	250	150	0	0	0	
Delay (s)	0	-	-	-	0	-	0
LOS	Α	-	-	-	А	-	A
v/c	0	-	-	-	0	-	
95th% Queue (m)	0	-	-	-	0	-	
		ain Road/C					
		PM Peak H					
		e Road		Road		ell Road	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	40	50	50	10	15	40	
Delay (s)	7	-	-	-	9	-	4
LOS	Α	-	-	-	А	-	A
v/c	0.03	-	-	-	0.07	-	
95th% Queue (m)	0	-	-	-	0	-	



The results indicate that two stop-controlled intersections operate within acceptable operating conditions.¹ The signals at Cow Bay Road meet the v/c ratio requirements but is showing long queues for the Cow Bay Road approach during the AM Peak Hour, and for the Main Road approach during the PM peak hour.

It should be noted that this analysis is based on observed volumes that were adjusted for Covid-19 so it was not possible to confirm these queues through observation. A review of the miovision video for the PM peak hour indicated a maximum queue for the Main Road approach of 8 cars (50 m +\-). The queue for Cow Bay Road approach could not be confirmed because of the camera angle.

Full Synchro analysis results can be provided upon request.

4.0 PROPOSED DEVELOPMENT

4.1 OVERVIEW

The proposed development comprises of 94 residential units and approximately 5000 square feet of commercial space. Residential units are divided into 52 townhouse units, 18 single family units, and a 3-4 story

building with 24 units. The commercial space is expected to be a locally owned coffee and/or convenience store.

The proposed site configuration is shown in in Figure 3. There is one proposed access points: a proposed public street intersection with Shore Road on the western portion of the site.

There is concrete sidewalk on either side of the roadway. A pedestrian connection is proposed at the northwestern corner of the site that would connect to the Tallahassee Community School property. We understand that the school has indicated if this pedestrian connection is constructed that they would in turn build a connection from the property line up to the school grounds.

Curb bump outs have been proposed to bookend the on-street parking to assist with traffic calming in the neighbourhood and to create locations with shorter crossing distances to access the central proposed park. The street has a curb-to-curb width of 6.8 m in the areas without on-street parking, and 9.0 m for the sections that accommodate parallel parking on

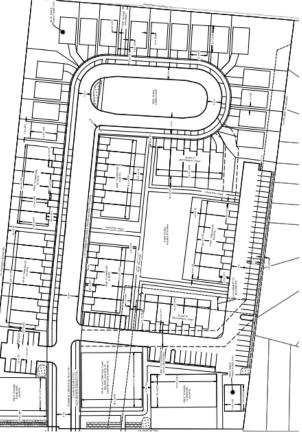


Figure 3: Proposed site configuration

¹ Acceptable operating conditions are defined by HRM's Guidelines for the Preparation of Transportation Impact Studies (8th Revision). The Guidelines require proponents to identify intersections where the overall intersection v/c ratio exceed 0.85, the v/c ratio for through or shared turning movements exceed 0.85, the v/c ratio for protected movements exceed 1.0, and the average delay exceed what is typically unacceptable.



one side. The number of driveways along the western side of the road mean that parallel parking is only feasible on the eastern side of the road.

The proposed public road includes a modified P-loop at the top with a green space in the center of the 'P'. The straight section along the loop have a curb-to-curb width of 5.5 m and the end of the loop has a wider curb-to-curb width of 6.5 m, in order to accommodate larger vehicle movements. The intention is that traffic will be one direction around the loop, with vehicle travelling in the counter-clockwise direction.

4.2 TRIP GENERATION

The ITE Trip Generation Manual method was used to estimate site generated trips. It is estimated that the site will generate 124 AM peak and 152 PM peak hour vehicle trips. We have applied an active transportation and transit mode choice reduction of 14%. This is based on the 2016 JTW data. A 40% pass-by rate has been used for trips generated by commercial use that are completed by existing traffic on Shore Road and new residential trips. Total estimated vehicle trips generate by this new site are shown in the table below.

				Trip G	eneratior	n Rates			Trips (Generate	d
Land Use	Units		AM Peak			PM Peak		AM	Peak	٩N	/I Peak
		Rate	In	Out	Rate	In	Out	In	Out	In	Out
Single-Family											
Detached	70	0.76	0.26	0.74	1	0.64	0.36	14	39	45	25
Housing (210)											
Multifamily											
Housing (Mid-	24	0.32	0.27	0.73	0.41	0.6	0.4	2	6	6	4
Rise) (221)											
Fast Casual	5000 anft	36.21	0.02	0.20	42.70	0.40	0.54	112	60	101	110
Restaurant (930)	5000 sqft	30.21	0.62	0.38	43.79	0.46	0.54	112	69	101	118
Estimated Site Ger	nerated Trip	s						128	114	151	147
Reduction mode s	hare (14%)							18	16	21	21
Reduction Pass by	(40%)							44	39	52	51
Total Estimated Sit	te Generate	d Trips						66	59	78	76
Notes:	1. Trip gene	ration ra	tes from	ITE Trip (Generatio	on Manua	al, 10th Eo	dition			
	2. A 14% mo	ode share	e reductio	on, based	l on 2016	Journey	to Work (data, has	been ap	plied to a	all trips to
	account for	trips ma	de by wa	lking, cyc	ling and	transit.					
	3. A 40% pa	ss-by rate	e has bee	n applie	d to acco	unt for co	ommercia	al trips m	ade by ex	kisting tra	affic and
	new reside	ntial trip	s.								

Table 3: ITE Trip Generation for Blue Ocean Estates

4.3 TRIP DISTRIBUTION AND ASSIGNMENT

A review of the 2016 Journey-to-Work data indicates the following for the study area:

Peninsula Halifax	30%
Burnside	22%
Shearwater/Woodside	11%
Intrazonal	7%
Other	30%

Based on this data, it was assumed that 90% of all trips would be to and from the east, and 10% of all trips would be to and from the west.



5.0 SITE ASSESSMENT

5.1 ACCESS REVIEW

A review of the available sightlines along Shore Road was carried out at the two proposed site accesses. The review was based on the guidelines contained in the Transportation Association of Canada's (TAC) Geometric Design Guide for Canadian Roads. These guidelines were used to determine the appropriate minimum stopping sight distance (SSD) criteria. The posted speed limit on this section of Shore Road is 50 kph. It has been conservatively assumed that the vehicle operating speeds along this roadway would likely be about 60 kph and this speed has been used as the basis of the sightline review. Characteristic to a roadway that follows a shoreline, Shore Road has a relatively flat grade. For a design speed of 60 kph, the minimum stopping site distance is 85 m. For the public road access, the available driver sight lines to the southwest of the proposed intersection was measured as 144 m and the sight line to the south of the access was 207 m. For the proposed private driveway access, the available driver sight lines to the southwest of the access was measured as 142 m and the sight line to the south of the access was 188 m.

The sight distance in both directions for both accesses exceeds the TAC minimum stopping sight distance (SSD) criteria. We did not identify any concerns with sight distance at the proposed access.



Figure 5 - Looking northwest from proposed public access



Figure 4 - Looking southeast from proposed public access



5.2 FUTURE TRAFFIC VOLUMES

It assumed that full build-out will occur in 5-years so the time horizon for the future growth scenario will be 2026. Based on population and traffic data in the area, a background traffic growth rate of 1% per year has been used.

The following figures present a summary of the traffic volumes for 2021 existing conditions, future 2026 conditions with background growth, and the 2026 conditions with the proposed development. Note that as previously discussed, the 2021 baseline traffic volumes have been adjusted for Covid-19.

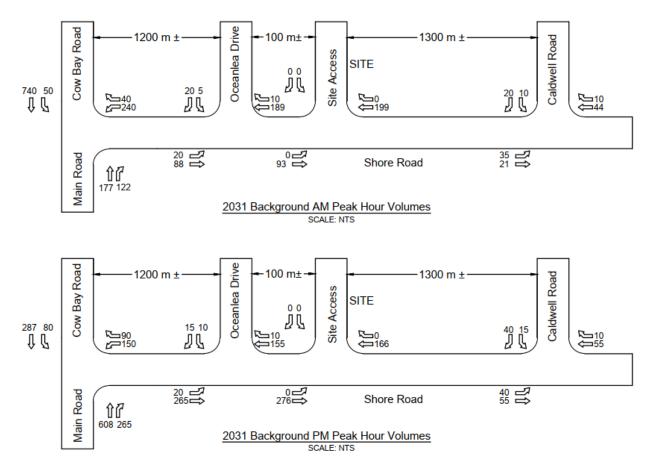


Figure 6 - 2031 Background Traffic Volumes

5.3 OPERATIONAL ANALYSIS

Intersection capacity analysis was carried out to review the impact of the proposed development. Synchro 11 software was used to evaluate the performance of the study intersections. The results are shown in the following tables (for ease of comparison, the tables showing baseline scenarios presented in section 2.3 have been reproduced in this section).



Table 4 - 2031 Background - AM Peak

	M	ain Road/C	ow Bay Ro	ad & Shore	Road		
	A	VI Peak Hou	ır - 2031 Ba	ckground ⁻	Fraffic		
	Shore	e Road	Main	Road	Cow Ba	ay Road	
LOS Criteria	WBL	WBR	NBT	NBR	SBL	SBT	Intersection
Vehicle Count	240	40	177	122	50	740	
Delay (s)	27	7	1	.0	6	13	14
LOS	С	А	A	4	А	В	В
v/c	0.64	0.11	0.	34	0.09	0.7	
95th% Queue (m)	42	6	3	8	6	108	
		Shore R	oad & Oce	anlea Drive	9		
	A	M Peak Hou	ır - 2031 Ba	ckground ⁻	Traffic		
	Shore	e Road	Shore	Road	Oceanle	ea Drive	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	20	88	188	10	5	20	
Delay (s)	8	-	-	-	10	-	1
LOS	А	-	-	-	А	-	А
v/c	0.02	-	-	-	0.04	-	
95th% Queue (m)	0	-	-	-	0	-	
		Sh	ore Road 8	& Site			
	A	M Peak Hou	ır - 2031 Ba	ckground ⁻	Fraffic		
	Shore	e Road	Shore	Road	Si	te	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	0	88	199	0	0	0	
Delay (s)	0	-	-	-	0	-	0
LOS	А	-	-	-	А	-	A
v/c	0	-	-	-	0	-	
95th% Queue (m)	0	-	-	-	0	-	
		Shore R	load & Calo	dwell Road			
	A	M Peak Hou	ır - 2031 Ba	ckground ⁻	Fraffic		
	Shore	Road	Shore	Road	Caldwe	ell Road	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	35	22	44	10	10	20	
Delay (s)	7	-	-	-	9	-	4
LOS	А	-	-	-	А	-	A
v/c	0.03	-	-	-	0.04	-	
95th% Queue (m)	0	-	-	-	0	-	



Table 5 - 2031 Total AM Peak

	M	ain Road/C	ow Bay Ro	ad & Shore	Road				
		AM Peak	Hour - 2031	L Total Traf	fic				
	Shore	e Road	Main	Road	Cow Ba	ay Road			
LOS Criteria	WBL	WBR	NBT	NBR	SBL	SBT	Intersection		
Vehicle Count	284	46	177	172	57	740			
Delay (s)	28	6	1	.0	6	14	15		
LOS	С	А	I	В	А	В	В		
v/c	0.69	0.11	0.	41	0.11	0.72			
95th% Queue (m)	50	6	4	3	7	108			
		Shore R	oad & Oce	anlea Drive	9				
		AM Peak	Hour - 2031	L Total Traf	fic				
	Shore	e Road	Shore	Road	Oceanle	ea Drive			
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection		
Vehicle Count	20	145	238	13	8	20			
Delay (s)	8	-	-	-	11	-	1		
LOS	А	-	-	-	В	-	А		
v/c	0.02	-	-	-	0.4	-			
95th% Queue (m)	0	-	-	-	0	-			
		Sh	ore Road 8	& Site					
		AM Peak	Hour - 2031	L Total Traf	fic				
	Shore	e Road	Shore	Road	Site				
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection		
Vehicle Count	60	88	199	6	6	53			
Delay (s)	8	-	-	-	10	-	3		
LOS	А	-	-	-	В	-	А		
v/c	0.5	-	-	-	0.08	-			
95th% Queue (m)	5	-	-	-	5	-			
		Shore R	load & Cal	dwell Road					
		AM Peak	Hour - 2031	L Total Traf	fic				
	Shore	e Road	Shore	Road	Caldwe	ell Road			
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection		
Vehicle Count	38	25	47	10	10	23			
Delay (s)	7	-	-	-	9	-	4		
LOS	А	-	-	-	А	-	А		
v/c	0.03	-	-	-	0.04	-			
95th% Queue (m)	0	-	-	-	0	-			



Table 6 - 2031 Background PM Peak

	M	ain Road/C	ow Bay Ro	ad & Shore	Road		
	PN	И Peak Hou	r - 2031 Ba	ckground T	Traffic		
	Shore	e Road	Main	Road	Cow Ba	ay Road	
LOS Criteria	WBL	WBR	NBT	NBR	SBL	SBT	Intersection
Vehicle Count	150	90	608	265	80	287	
Delay (s)	24	7	2	9	6	5	21
LOS	С	А	(2	А	А	С
v/c	0.48	0.26	0.	87	0.27	0.24	
95th% Queue (m)	27	9	18	33	7	24	
		Shore R	oad & Oce	anlea Drive	9		
	PN	Л Peak Hou	ir - 2031 Ba	ckground 1	raffic		
	Shore	e Road	Shore	Road	Oceanle	ea Drive	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	20	265	155	10	10	15	
Delay (s)	8	-	-	-	11	-	1
LOS	А	-	-	-	В	-	A
v/c	0.02	-	-	-	0.04	-	
95th% Queue (m)	0	-	-	-	0	-	
		Sh	ore Road &	& Site			
	PN	И Peak Hou	r - 2031 Ba	ckground 1	Traffic		
	Shore	Road	Shore	Road	Si	te	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	0	88	199	0	0	0	
Delay (s)	0	-	-	-	0	-	0
LOS	А	-	-	-	А	-	A
v/c	0	-	-	-	0	-	
95th% Queue (m)	0	-	-	-	0	-	
		Shore R	load & Cal	dwell Road			
		A Peak Hou			raffic		
	Shore	Road	Shore	Road	Caldwe	ell Road	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	40	55	55	10	15	40	
Delay (s)	7	-	-	-	9	-	4
LOS	А	-	-	-	Α	-	A
v/c	0.03	-	-	-	0.07	-	
95th% Queue (m)	0	-	-	-	0	-	



Table 7 - 2031 Total PM Peak

	M	ain Road/C	ow Bay Ro	ad & Shore	Road		•
		PM Peak I	Hour - 2031	L Total Traf	fic		
	Shore	Road	Main	Road	Cow Ba	iy Road	
LOS Criteria	WBL	WBR	NBT	NBR	SBL	SBT	Intersection
Vehicle Count	206	98	608	323	88	287	
Delay (s)	49	9	3	4	14	6	29
LOS	D	А	(C	В	А	С
v/c	0.73	0.29	0.	93	0.44	0.24	
95th% Queue (m)	59	13	2!	56	15	30	
		Shore R	oad & Oce	anlea Drive	9		
		PM Peak I	Hour - 2031	L Total Traf	fic		
	Shore	Road	Shore	Road	Oceanle	ea Drive	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	20	331	219	14	14	15	
Delay (s)	8	-	-	-	12	-	1
LOS	А	-	-	-	В	-	А
v/c	0.02	-	-	-	0.06	-	
95th% Queue (m)	0	-	-	-	0	-	
		Sh	ore Road &	& Site			
		PM Peak I	Hour - 2031	L Total Traf	fic		
	Shore	Road	Shore	Road	Si	te	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	70	276	166	8	8	68	
Delay (s)	8	-	-	-	10	-	2
LOS	А	-	-	-	В	-	А
v/c	0.06	-	-	-	0.11	-	
95th% Queue (m)	0	-	-	-	0	-	
		Shore R	load & Cal	dwell Road			
		PM Peak I	Hour - 2031	L Total Traf	fic		
	Shore	Road	Shore	Road	Caldwe	ll Road	
LOS Criteria	EBL	EBT	WBT	WBR	SBL	SBR	Intersection
Vehicle Count	44	59	59	10	15	44	
Delay (s)	7	-	-	-	9	-	4
LOS	А	-	-	-	А	-	A
v/c	0.03	-	-	-	0.07	-	
95th% Queue (m)	0	-	-	-	0	-	



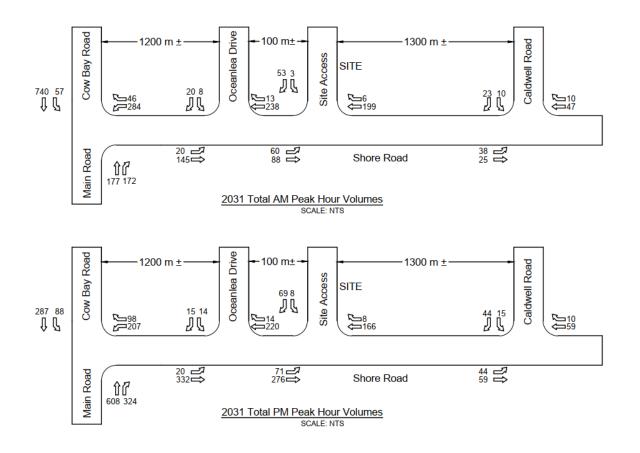


Figure 7 - 2031 Total Traffic Volumes

The operational analysis yields the following observations:

- The stop-controlled intersections analyzed for this study operate within acceptable operating conditions with and without site generated trips.
- The Cow Bay Road signalized intersection currently operates within acceptable operating conditions during the AM and PM peak hours.
- By 2031, the Main Road through approach will exceed the 0.85 v/c criteria during the PM peak hour with and without site generated trips.
- Site generated trips from the proposed development have a minimal impact on traffic operations during the AM peak hours
- Site generated trips increase delay at the intersection of Shore Road and Main Road during the PM peak hour, but delays are still within acceptable limits.



5.4 WARRANT ANALYSIS

A left turning warrant analysis for the proposed site intersection was completed for the 2031 Total Peak AM and PM hour volumes using The Geometric Design Standards for Ontario Highways Manual. For the purposes of this analysis, traffic volumes were not split between the public and private driveways. A design speed of 60 km/h was used. This analysis concluded that a left turn lane is not warranted for the proposed site access.

Similarly, a right turn lane warrant analysis was completed based on guidance from The Ohio Department of Transportation State Highway Access Management Manual. The evaluation indicated that a right turning lane is not warranted for either proposed access point.

The auxiliary lane warrants have been included in Appendix B of this report.

Due to the low traffic volumes, a signal warrant analysis was not completed for the proposed site access or for the nearby intersection of Shore Road and Oceanlea Drive

6.0 SUMMARY

The following provides a summary of the results of this traffic study:

- Traffic volumes collected in May 2021 were believed to be slightly depressed due to modified travel patterns resulting from COVID-19 health pandemic. To mitigate this impact a factor of 1.3 was applied to AM Peak hour volumes and a factor of 1.1 was applied to PM peak hour volumes.
- Based on ITE trip generate rates, the proposed development is estimated to generate 124 new AM peak hour trips and 152 new PM peak hour trips.
- Analysis of these traffic volumes has found that neither turning lanes nor traffic signals will be warranted at the proposed site intersection.
- The direct connection between the site and the Woodside Ferry via route 60 (and MFTP route 6) provides an attractive alternative to traveling to Downtown Halifax by car.
- Operation analysis using Synchro 11 software was performed to review impact of proposed development and found no major operation concerns.

7.0 RECOMMENDATIONS

The following recommendations have been prepared based on the findings of this study:

- No upgrades are required for existing infrastructure to accommodate trips generated by the proposed development.
- Any modifications to the geometry of the existing roadway should be designed and constructed following HRM and TAC design guidelines.
- All signage and pavement markings within the proposed public road will be subject to approval by HRM Traffic Authority.



APPENDIX A – TRAFFIC VOLUME COUNT DATA

Intersection:

Date:

Shore Road & Oceanlea Drive, Eastern Passage May 12, 2021

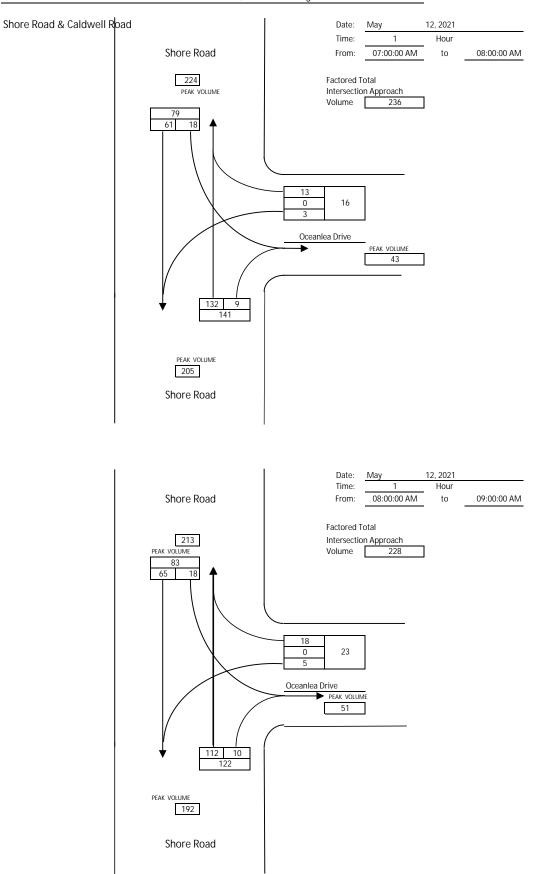
Data collected by: Miovision

STREET:		Oc	eanlea D	rive			Shore	Road			7
TIME:		Fi	rom the Noi	rth	F	rom the We	est	F	TOTAL		
15 MIN INTERVALS		L	UT	R	L	T	UT	UT	T	R	
07:00 AM	07:15 AM	0		3	1	6			38	3	51
07:15 AM	07:30 AM	1		6	2	18			29	3	59
07:30 AM	07:45 AM	0		2	7	19			41	2	71
07:45 AM	08:00 AM	2		2	8	18			24	1	55
ΤΟΤΑΙ		3	0	13	18	61	0	0	132	9	236
PFAK		5	16	15	10	79	U	U	141	,	230
15 MIN PEAK			7			26			43		
PFAK HOUR FACTOR			2.29			3.04			3.28		
TWO WAY TOTALS			43			224		3.28			FACTOR
TWO WAT TOTALS			40			227			205		1
											236
		Oc	eanlea D	rive			Shore	Road			
TIME:		Fi	rom the Noi		F	From the West			From the East		
15 MIN INTERVALS		L	UT	R	L	T	UT	UT	T	R	
08:00 AM	08:15 AM	2		4	5	18			28	1	58
08:15 AM	08:30 AM	1		4	2	16			28	3	54
08:30 AM	08:45 AM	2		4	4	19			25	4	58
08:45 AM	09:00 AM	0		6	7	12			31	2	58
		. <u> </u>									
TOTAL		5	0	18	18	65	0	0	112	10	228
PEAK			23			83			122		
15 MIN PEAK			6			23			33		
PEAK HOUR FACTOR			3.83			3.61			3.7		FACTOR
TWO WAY TOTALS			51			213			192		FACTOR

FACTOR 1 228



Vehicular Graphic Summary Sheet Shore Road & Oceanlea Drive, Eastern Passage

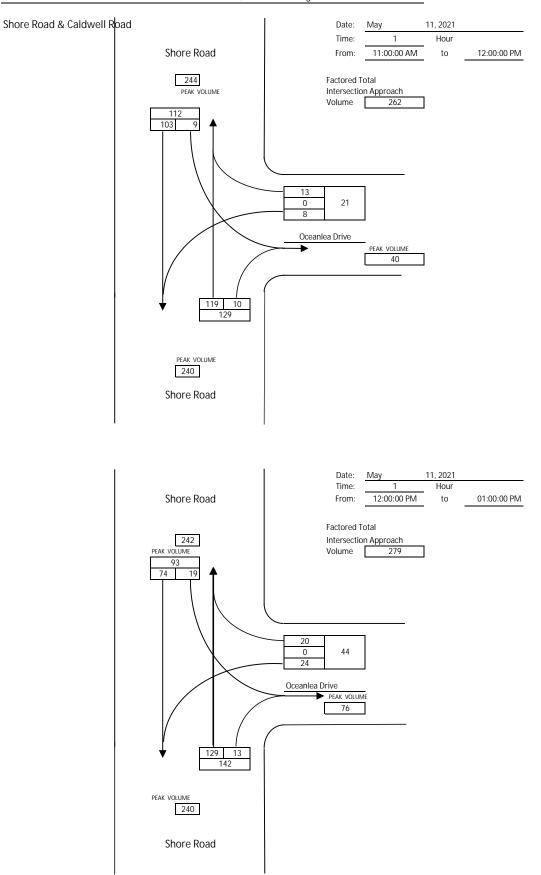


STREET:		00	ceanlea D	rive		Shore Road					
TIME:		F	rom the No	rth	F	rom the We	st	F	TOTAL		
15 MIN INTERVALS		L	UT	R	L	T	UT	UT	T	R	
11:00 AM	11:15 AM	1		3	2	29			29	2	66
11:15 AM	11:30 AM	4		3	2	24			34	0	67
11:30 AM	11:45 AM	0		1	4	23			29	1	58
11:45 AM	12:00 PM	3		6	1	27			27	7	71
ΤΟΤΑΙ		8	0	13	9	103	0	0	119	10	262
PEAK		0	21	15	7	112	0	0	129	10	202
15 MIN PEAK			9			31			34		
PFAK HOUR FACTOR			2.33						3.79		
TWO WAY TOTALS			40			3.61 244			240		FACTOR
INO WAI IOTALS			40			244			240		1
											262
											LUL
		00	eanlea D	rive			Shore	Road			7
TIME:			ceanlea D	-	F	rom the We			From the Eas	st	TOTAL
TIME: 15 MIN INTERVALS				-	F	rom the We			From the Eas	st R	TOTAL
	12:15 PM		rom the No	rth	F L 2		st	ŀ	From the Eas T 31	-	TOTAL 67
15 MIN INTERVALS	12:15 PM 12:30 PM	F	rom the No	rth R	L	Т	st	ŀ	T	R	
15 MIN_INTERVALS 12:00 PM		F L 6	rom the No	R R 8	L 2	т 14	st	ŀ	т 31	R 6	67
15 MIN INTERVALS 12:00 PM 12:15 PM	12:30 PM	F L 6 6	rom the No	rth R 8 4	L 2 6	T 14 18	st	ŀ	T 31 32	R 6 3	67 69
15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM 12:45 PM	12:30 PM 12:45 PM	F L 6 3 9	rom the Nor	th R 8 4 8 0	L 2 6 6 5	T 14 18 22 20	st UT	ŀ	T 31 32 28 38	R 6 3 3 1	67 69 70 73
15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM	12:30 PM 12:45 PM	F L 6 3	rom the No	rth R 8 4 8	L 2 6 6	T 14 18 22	st	UT	T 31 32 28	R 6 3 3	67 69 70
15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM 12:45 PM TOTAL PEAK	12:30 PM 12:45 PM	F L 6 3 9	rom the Nor	th R 8 4 8 0	L 2 6 6 5	T 14 18 22 20 74	st UT	UT	T 31 32 28 38 129	R 6 3 3 1	67 69 70 73
15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM 12:45 PM TOTAL	12:30 PM 12:45 PM	F L 6 3 9	O O 0 44	th R 8 4 8 0	L 2 6 6 5	T 14 18 22 20 74 93	st UT	UT	T 31 32 28 38 129 142	R 6 3 3 1	67 69 70 73

FACTOR 1 279



Vehicular Graphic Summary Sheet Shore Road & Oceanlea Drive, Eastern Passage



Shore Road & Caldwell Road, Eastern Passage Intersection:

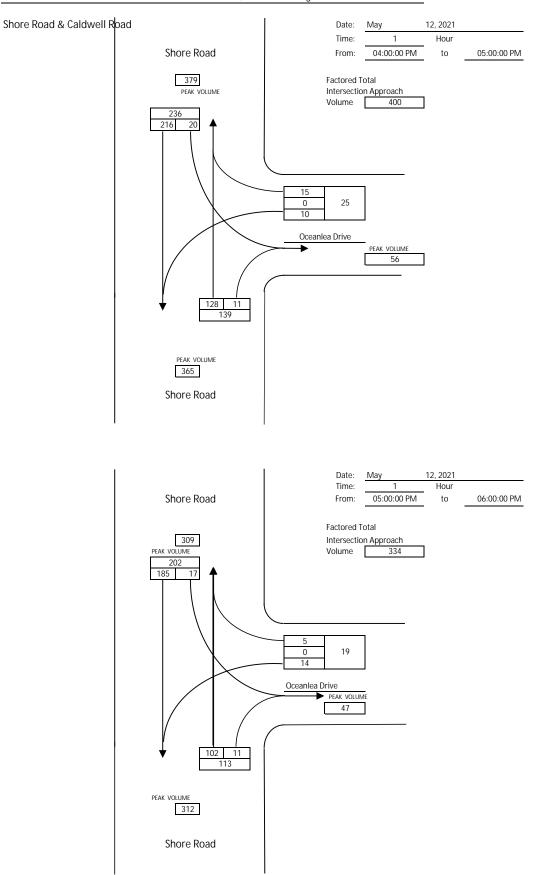
Date:

May 12, 2021 Data collected by: Miovision

STREET:		Oceanlea Drive			Shore Road						
TIME:	From the North			F	rom the We	st		TOTAL			
15 MIN INTERVALS		L	UT	R	L	Т	UT	UT	Т	R	
04:00 PM	04:15 PM	0		5	3	61			29	1	99
04:15 PM	04:30 PM	9		4	6	48			42	4	113
04:30 PM	04:45 PM	0		2	3	52			27	3	87
04:45 PM	05:00 PM	1		4	8	55			30	3	101
TOTAL		10		15	20	216	0	0	128	11	400
PEAK			25			236			139		
15 MIN PEAK			13			64			46		
PEAK HOUR FACTOR			1.92			3.69					
TWO WAY TOTALS			56			379			365		FACTOR
											1
											400
STREET:		Oc	Oceanlea Drive From the North			Shore Road					
TIME:		Fr				rom the We	st		TOTAL		
15 MIN INTERVALS		L	UT	R	L	Т	UT	UT	Т	R	
05:00 PM	05:15 PM	3		1	4	45			22	2	77
05:15 PM	05:30 PM	5		1	3	61			16	5	91
05:30 PM	05:45 PM	3		1	5	43			40	1	93
05:45 PM	06:00 PM	3		2	5	36			24	3	73
		14	0	5	17	185	0	0	102	11	334
TOTAL						202			113		
			19								
PEAK			19 6			64			41		
PEAK 15 MIN PEAK PEAK HOUR FACTOR			6 3.17			3.16			2.76		
PEAK 15 MIN PEAK PEAK HOUR FACTOR			6								FACTOR
TOTAL PEAK 15 MIN PEAK PEAK HOUR FACTOR TWO WAY TOTALS			6 3.17			3.16			2.76		FACTOR 1 334



Vehicular Graphic Summary Sheet Shore Road & Oceanlea Drive, Eastern Passage



Intersection: Shore Road & Cow Bay Road, Eastern Passage

May 11, 2021

Date:

Data collected by:

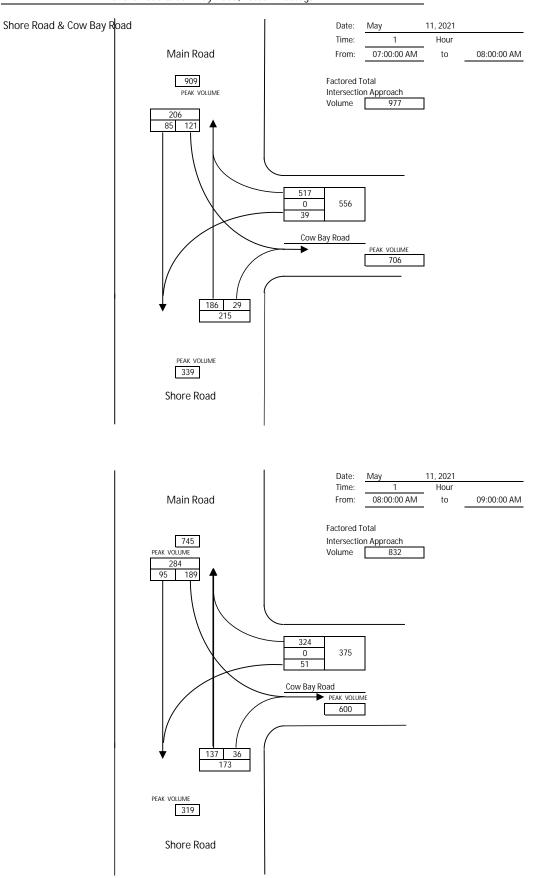
Miovision

STREET:	Cow Bay Road			٩ ا	Main Roa	d	S	hore Roa	d	7	
TIME:	From the East			Fr	om the Nor	rth	Fr	th	TOTAL		
15 MIN INTERVALS	L	UT	R	L	Т	UT	UT	Т	R		
07:00 AM	07:15 AM	4		137	21	12			50	4	228
07:15 AM	07:30 AM	5		137	34	22			43	10	251
07:30 AM	07:45 AM	12		141	38	17			56	7	271
07:45 AM	08:00 AM	18		102	28	34			37	8	227
TOTAL		39	0	517	121	85	0	0	186	29	977
PEAK		-	556	-		206	<u> </u>		215		+ +
15 MIN PEAK			153			62		l	63		
PEAK HOUR FACTOR			3.63			3.32		l	3.41		
TWO WAY TOTALS			706			909		l	339		FACTOR
							*		-		1
											977
		Сс	ow Bay Ro	bad	ľ	Main Roa	d	S	hore Roa	d	٦
TIME:			From the East			From the North			From the South		
15 MIN INTERVALS		L	UT	R	L	Т	UT	UT	Т	R	TOTAL
08:00 AM	08:15 AM	13		97	47	23			39	4	223
08:15 AM	08:30 AM	12		73	43	25			27	12	192
08:30 AM	08:45 AM	15		78	49	16			41	6	205
08:45 AM	09:00 AM	11		76	50	31			30	14	212
TOTAL		F1		224	100	05			107	27	000
TOTAL PEAK		51	0 375	324	189	95 284	0	0	137 173	36	832
15 MIN PEAK			375 110			284 81		I	47		
PFAK HOUR FACTOR			3.41			3.51		I	47 3.68		
TWO WAY TOTALS			600			745		l	3.08		FACTOR
INO WAT TO MES		600			1	750			TACTOR		

FACTOR 1 832



Vehicular Graphic Summary Sheet Shore Road & Cow Bay Road, Eastern Passage



Shore Road & Cow Bay Road, Eastern Passage Intersection: May 10, 2021 Data collected by: Miovision

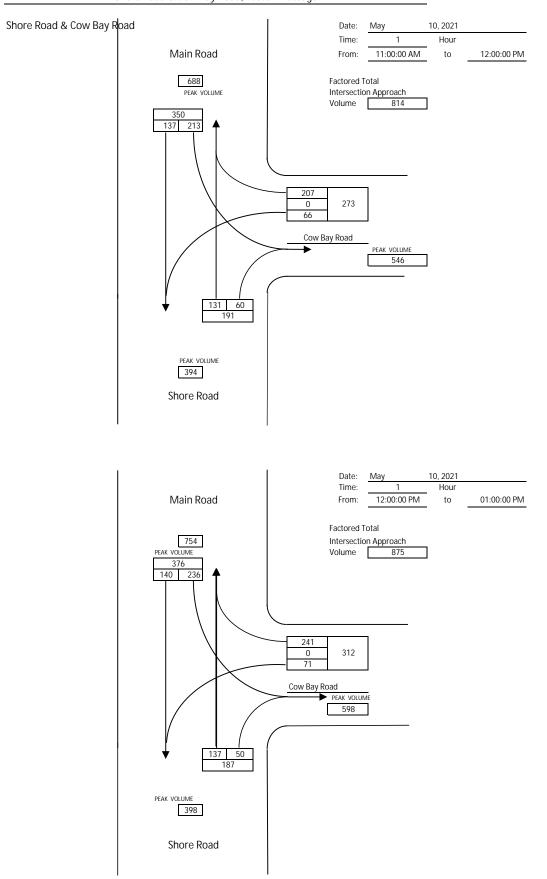
Date:

STREET:	Cow Bay Road			1	Vain Roa	d					
TIME:	From the East			Fr	om the Nor	th	F	TOTAL			
15 MIN INTERVALS	L	Т	R	L	Т	R	L	Т	R		
11:00 AM	11:15 AM	12		47	58	32			20	13	182
11:15 AM	11:30 AM	18		54	34	37			39	15	197
11:30 AM	11:45 AM	23		46	61	37			38	12	217
11:45 AM	12:00 PM	13		60	60	31			34	20	218
TOTAL		66		207	213	137	0	0	131	60	814
PEAK			273			350	-	-	191		
15 MIN PEAK			73			98			54		
PEAK HOUR FACTOR			3.74			3.57			3.54		
TWO WAY TOTALS			546			688			394		FACTOR
											1
											814
CTDEET.		Co	W Bay Pr	had	L N	Jain Poa	Ч	(Shore Poa	d	7
STREET:			ow Bay Ro			Vain Roa			Shore Roa		TOTAL
TIME:			From the Ea	st	Fr	om the Nor	th		rom the Sou	ıth	TOTAL
TIME: 15 MIN INTERVALS	12·15 DM	L		st R	Fr	om the Nor T			rom the Sou T	ith R	
TIME: 15 MIN INTERVALS 12:00 PM	12:15 PM	L 21	From the Ea	st R 55	Fr L 65	om the Nor T 36	th		rom the Sou T 37	ith R 11	225
TIME: 15 MIN_INTERVALS 12:00 PM 12:15 PM	12:30 PM	L 21 17	From the Ea	st R 55 55	Fr L 65 55	rom the Nor T 36 44	th		T T T T T T T T T T T T T T T T T T T	ith R 11 10	225 214
TIME: 15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM	12:30 PM 12:45 PM	L 21 17 17	From the Ea	st R 55 55 69	Fr L 65 55 65	rom the Nor T 36 44 30	th		T 37 33 34	R 11 10 18	225 214 233
TIME: 15 MIN_INTERVALS 12:00 PM 12:15 PM	12:30 PM	L 21 17	From the Ea	st R 55 55	Fr L 65 55	rom the Nor T 36 44	th		T T T T T T T T T T T T T T T T T T T	ith R 11 10	225 214
TIME: 15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM	12:30 PM 12:45 PM	L 21 17 17	From the Ea	st R 55 55 69	Fr L 65 55 65	rom the Nor T 36 44 30	th		T 37 33 34	R 11 10 18	225 214 233
TIME: 15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM 12:45 PM	12:30 PM 12:45 PM	L 21 17 17 16	From the Ea	st R 55 55 69 62	Fr L 65 55 65 51	rom the Nor T 36 44 30 30	th R	F L	T 37 33 34 33	ith R 11 10 18 11	225 214 233 203
TIME: 15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM 12:45 PM TOTAL	12:30 PM 12:45 PM	L 21 17 17 16	From the Ea	st R 55 55 69 62	Fr L 65 55 65 51	rom the Nor T 36 44 30 30 140 376 101	th R	F L	rom the Sou T 37 33 34 33 34 33 137 187 52	ith R 11 10 18 11	225 214 233 203
TIME: 15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM 12:30 PM 12:45 PM TOTAL PEAK 15 MIN PEAK PEAK HOUR FACTOR	12:30 PM 12:45 PM	L 21 17 17 16	From the Ea T 0 312 86 3.63	st R 55 55 69 62	Fr L 65 55 65 51	rom the Nor T 36 44 30 30 140 376 101 3.72	th R	F L	rom the Sou T 37 33 34 33 137 187 52 3.6	ith R 11 10 18 11	225 214 233 203 875
TIME: 15 MIN INTERVALS 12:00 PM 12:15 PM 12:30 PM 12:35 PM 12:45 PM TOTAL PEAK 15 MIN PEAK	12:30 PM 12:45 PM	L 21 17 17 16	From the Ea	st R 55 55 69 62	Fr L 65 55 65 51	rom the Nor T 36 44 30 30 140 376 101	th R	F L	rom the Sou T 37 33 34 33 34 33 137 187 52	ith R 11 10 18 11	225 214 233 203

875



Vehicular Graphic Summary Sheet Shore Road & Cow Bay Road, Eastern Passage



Shore Road & Cow Bay Road, Eastern Passage Intersection: May 10, 2021 Data collected by: Miovision

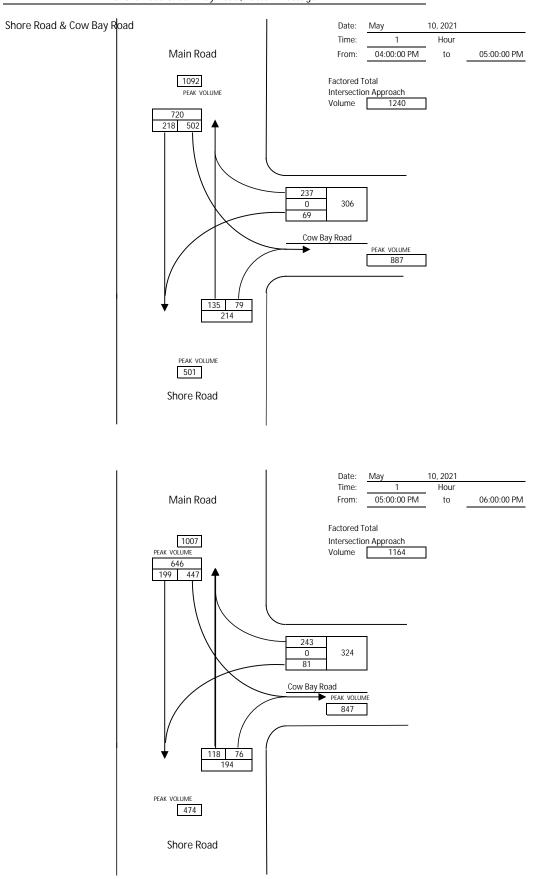
Date:

STREET:	Cow Bay Road From the East			1	Main Roa	d	S	TOTAL			
TIME:				Fr	om the Nor	th	Fi				
15 MIN INTERVALS		L	UT	R	L	Т	UT	UT	T	R	
04:00 PM	04:15 PM	23		58	119	60			36	29	325
04:15 PM	04:30 PM	13		51	112	58			41	18	293
04:30 PM	04:45 PM	20		66	126	46			30	19	307
04:45 PM	05:00 PM	13		62	145	54			28	13	315
ΤΟΤΑΙ		69	1	237	502	218	0	0	135	79	1240
PFAK		07	306	207	002	720	0	0	214	17	1210
15 MIN PFAK			86			199			65		
PEAK HOUR FACTOR			3.56			3.62			3.29		
TWO WAY TOTALS			887			1092			501		FACTO
		007			1072			001			
											1240
STRFFT:		Ca	aldwell Ro	bad	1	Main Roa	d	S	Shore Roa	d	1240
					-		-	-			
TIME:			From the Ea	st	Fr	om the Nor	th	Fi	rom the Sou	ith	1 1240 TOTAL
TIME: 15 MIN_INTERVALS	05:15 PM			st R	Fr	om the Nor T	-	-	rom the Sou T	ith R	TOTAL
TIME:	05:15 PM 05:30 PM	L I	From the Ea	st	Fr	om the Nor	th	Fi	rom the Sou	ith]
TIME: 15 MIN_INTERVALS 05:00 PM		L 16	From the Ea	st R 61	Fr L 111	om the Nor T 54	th	Fi	rom the Sou T 31	th R 17	TOTAL 290
TIME: 15 MIN INTERVALS 05:00 PM 05:15 PM	05:30 PM	L 16 20	From the Ea	st R 61 55	Fr L 111 135	rom the Nor T 54 58	th	Fi	rom the Sou T 31 28	th R 17 20	TOTAL 290 316
TIME: 15 MIN INTERVALS 05:00 PM 05:15 PM 05:30 PM 05:45 PM	05:30 PM 05:45 PM	L 16 20 21 24	From the Ea	st R 61 55 68 59	Fr L 111 135 113 88	rom the Nor T 54 58 44 43	th UT	UT	rom the Sou T 31 28 26 33	th R 17 20 19 20	TOTAL 290 316 291 267
TIME: 15 MIN INTERVALS 05:00 PM 05:15 PM 05:30 PM 05:45 PM TOTAL	05:30 PM 05:45 PM	L 16 20 21	From the Ea	st R 61 55 68	Fr L 111 135 113	om the Nor T 54 58 44	th	Fi	rom the Sou T 31 28 26	th R 17 20 19	TOTAL 290 316 291
TIME: 15 MIN INTERVALS 05:00 PM 05:15 PM 05:30 PM 05:45 PM TOTAL PEAK	05:30 PM 05:45 PM	L 16 20 21 24	From the Ea	st R 61 55 68 59	Fr L 111 135 113 88	om the Nor T 54 58 44 43 199	th UT	UT	rom the Sou T 31 28 26 33 118	th R 17 20 19 20	TOTAL 290 316 291 267
TIME: 15 MIN INTERVALS 05:00 PM 05:15 PM 05:30 PM 05:45 PM TOTAL PEAK 15 MIN PEAK	05:30 PM 05:45 PM	L 16 20 21 24	From the Ea	st R 61 55 68 59	Fr L 111 135 113 88	om the Nor T 54 58 44 43 199 646	th UT	UT	rom the Sou T 31 28 26 33 118 194	th R 17 20 19 20	TOTAL 290 316 291 267
TIME: 15 MIN INTERVALS 05:00 PM 05:15 PM 05:30 PM	05:30 PM 05:45 PM	L 16 20 21 24	From the Ea UT 0 324 89	st R 61 55 68 59	Fr L 111 135 113 88	om the Nor T 54 58 44 43 199 646 193	th UT	UT	rom the Sou T 31 28 26 33 118 194 53	th R 17 20 19 20	TOTAL 290 316 291 267

1164



Vehicular Graphic Summary Sheet Shore Road & Cow Bay Road, Eastern Passage



Intersection:

Date:

Shore Road & Caldwell Road, Eastern Passage

Miovision Data collected by:

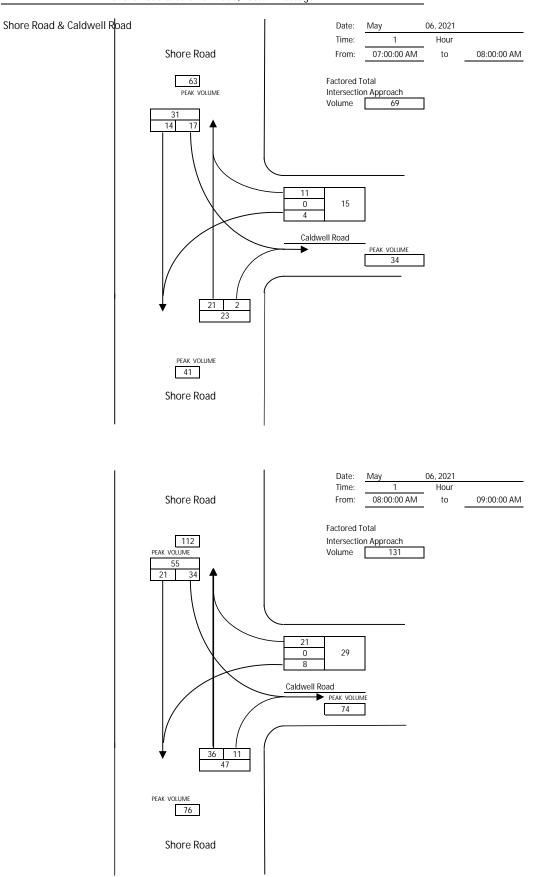
May 06, 2021

STREET:		Caldwell Road			Shore Road						
TIME:	From the North			Fi	rom the We	st	F	st	TOTAL		
15 MIN INTERVALS	L	UT	R	L	T	UT	UT	Т	R		
07:00 AM	07:15 AM	3		2	1	1			1	0	8
07:15 AM	07:30 AM	1		3	3	2			9	0	18
07:30 AM	07:45 AM	0		4	7	3			4	1	19
07:45 AM	08:00 AM	0		2	6	8			7	1	24
ΤΟΤΑΙ		4	0	11	17	14	0	0	21	2	69
PEAK			15			31	-	-	23		
15 MIN PEAK			5			14			9		
PEAK HOUR FACTOR			3			2.21			2.56		
TWO WAY TOTALS			34			63			41		FACTOR
											1
											69
		Ca	aldwell Ro	bad			Shore	Road			69
TIME:			aldwell Ro		Fi	rom the We			rom the Ea	st	69 TOTAL
					Fi L	rom the We			rom the Eas	st R	1
	08:15 AM		rom the No	rth	Fi L 1		est	F			1
15 MIN INTERVALS	08:15 AM 08:30 AM	F	rom the No	rth R	L	Т	est	F	Т	R	TOTAL
15 MIN_INTERVALS 08:00 AM		Fi L 3	rom the No	rth R 3	L 1	Т 5	est	F	Т 9	R 1	TOTAL
15 MIN INTERVALS 08:00 AM 08:15 AM	08:30 AM	Fi L 3 1	rom the No	rth R 3 4	L 1 8	T 5 4	est	F	T 9 8	R 1 0	TOTAL 22 25
15 MIN INTERVALS 08:00 AM 08:15 AM 08:30 AM 08:45 AM	08:30 AM 08:45 AM	Fi L 3 1 0	rom the No	rth R 3 4 7	L 1 8 15 10	T 5 4 5 7	est	F	T 9 8 11 8	R 1 0 7	TOTAL 22 25 45
15 MIN INTERVALS 08:00 AM 08:15 AM 08:30 AM 08:45 AM TOTAL	08:30 AM 08:45 AM	Fi L 3 1 0 4	rom the Nor	rth R 3 4 7 7 7	L 1 8 15	T 5 4 5	UT	F UT	T 9 8 11	R 1 0 7 3	TOTAL 22 25 45 39
15 MIN INTERVALS 08:00 AM 08:15 AM 08:30 AM 08:45 AM TOTAL PEAK	08:30 AM 08:45 AM	Fi L 3 1 0 4	0	rth R 3 4 7 7 7	L 1 8 15 10	T 5 4 5 7 21	UT	F UT	T 9 8 11 8 36	R 1 0 7 3	TOTAL 22 25 45 39
15 MIN INTERVALS 08:00 AM 08:15 AM 08:30 AM	08:30 AM 08:45 AM	Fi L 3 1 0 4	O 29	rth R 3 4 7 7 7	L 1 8 15 10	T 5 4 5 7 21 55	UT	F UT	T 9 8 11 8 36 47	R 1 0 7 3	TOTAL 22 25 45 39

FACTOR 1 131



Vehicular Graphic Summary Sheet Shore Road & Caldwell Road, Eastern Passage



Shore Road & Caldwell Road, Eastern Passage Intersection:

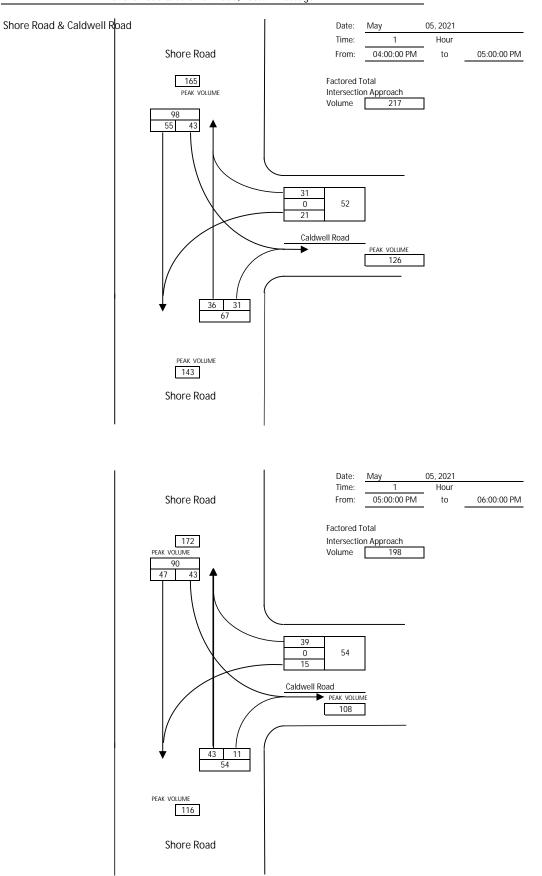
Date:

May 05, 2021 Data collected by: Miovision

STREET:		Caldwell Road			Shore Road						
TIME:	From the North			F	rom the We	est	F	TOTAL			
15 MIN INTERVALS	L	UT	R	L	Т	UT	UT	Т	R		
04:00 PM	04:15 PM	6		10	12	13			4	10	55
04:15 PM	04:30 PM	7		9	10	15			7	11	59
04:30 PM	04:45 PM	5		3	10	16			12	7	53
04:45 PM	05:00 PM	3		9	11	11			13	3	50
TOTAL		21		31	43	55	0	0	36	31	217
PEAK			52	•		98	•		67	•	
15 MIN PEAK			16			26			19		
PEAK HOUR FACTOR			3.25			3.77			3.53		
TWO WAY TOTALS			126			165			143		FACTOR
											1
											217
STREET:		Ca	aldwell Ro	bad			Shore	Road			7
TIMF:		F	From the North			rom the We	st	F	TOTAL		
15 MIN INTERVALS		L	UT	R	L	Т	UT	UT	Т	R	
05:00 PM	05:15 PM	3		10	8	13			17	4	55
05:15 PM	05:30 PM	5		4	16	11			6	2	44
	03.301101	J									
05:30 PM	05:45 PM	4		10	8	12			15	2	51
05:30 PM 05:45 PM		-			-				15 5	2 3	51 48
05:45 PM	05:45 PM	4	0	10	8	12	0	0	-		-
05:45 PM TOTAL	05:45 PM	4 3	0 54	10 15	8 11	12 11	0	0	5	3	48
05:45 PM TOTAL PEAK 15 MIN PEAK	05:45 PM	4 3	54 18	10 15	8 11	12 11 47 90 27	0	0	5 43 54 21	3	48
05:45 PM Total Peak 15 Min Peak Peak Hour Factor	05:45 PM	4 3	54 18 3	10 15	8 11	12 11 47 90 27 3.33	0	0	5 43 54 21 2.57	3	48
05:45 PM Total Peak 15 Min Peak Peak Hour Factor	05:45 PM	4 3	54 18	10 15	8 11	12 11 47 90 27	0	0	5 43 54 21	3	48
	05:45 PM	4 3	54 18 3	10 15	8 11	12 11 47 90 27 3.33	0	0	5 43 54 21 2.57	3	48



Vehicular Graphic Summary Sheet Shore Road & Caldwell Road, Eastern Passage

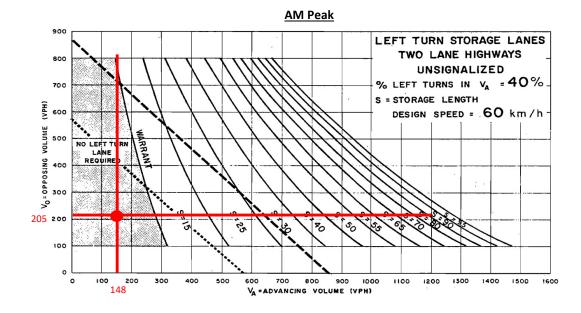


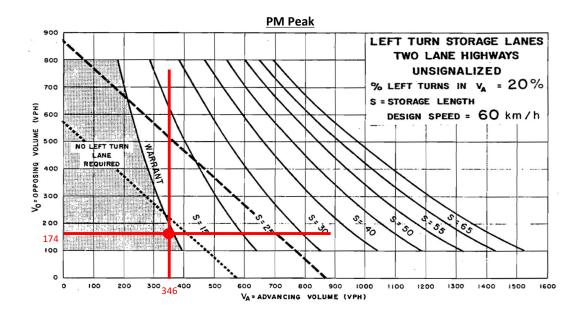


APPENDIX B – AUXILIARY LANE WARRANT ANALYSIS

Left Turn Warrant Analysis - Blue Ocean

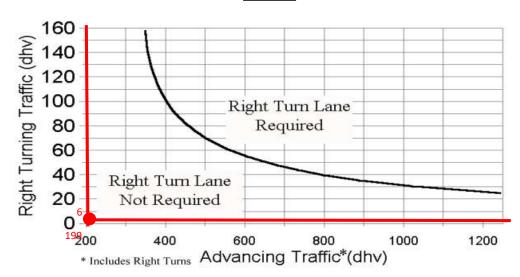
	LEFT	TURN
	AM	PM
V _A (%)	40.5%	20.2%
V _A (vph)	148	346
V _o (vph)	205	174
Left Turn	60	70



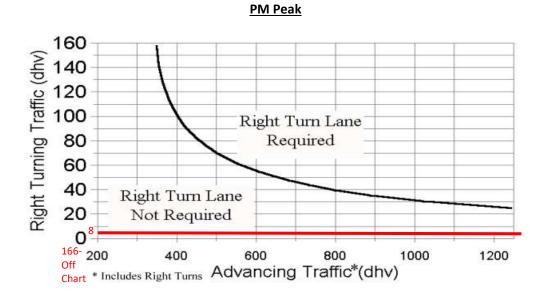


Right Turn Warrant Analysis - Blue Ocean

	Right	Turn
	AM	PM
V _A (vph)	199	166
Right Turn	6	8



AM Peak





APPENDIX C - SYNCHRO REPORTS

*	*	1	1	4	Ŧ
WBL	WBR	NBT	NBR	SBL	SBT
					•
		160	110		670
					670
					1883
	1001	1700	Ū		1000
	1601	1780	0		1883
1703			0	310	1005
0.00			0.02	0.00	0.92
0.92	0.92	0.92	0.92	0.92	0.92
004	10	004	^	F 4	700
			0	-	728
	Perm				NA
8		2		1	6
	8			6	
8	8	2		1	6
5.0	50	50		50	5.0
					22.5
					36.0
					60.0%
					3.5
					1.0
					0.0
4.5	4.5	4.5		4.0	4.5
		Lag		Lead	
		Yes		Yes	
None	None	Max		None	Max
					34.0
					0.60
					0.64
					11.6
					0.0
					11.6
	A			A	В
					11.2
С		В			В
22.3	0.0	14.4		1.8	39.7
					91.2
					36.0
				30.0	50.0
	585	015			1136
					0
					0
					0
0.42	0.07	0.32		0.08	0.64
			[nt	arcaction L	OS B
10/				ersection L	
.1%				ersection L U Level of S	
	240 240 240 1789 0.950 1789 0.92 261 Prot 8 8 8 5.0 22.5 24.0 40.0% 3.5 1.0 0.0 4.5 1.0 0.0 4.5 None 13.3 0.24 0.62 25.2 0.0 25.2 C 22.6 C	240 40 240 40 240 40 1789 1601 0.950 43 0.92 0.92 261 43 Prot Perm 8 8 5.0 5.0 22.5 22.5 24.0 24.0 40.0% 40.0% 3.5 3.5 1.0 1.0 0.0 0.0 4.5 4.5 None None 13.3 13.3 0.24 0.24 0.62 0.10 25.2 6.3 0.0 0.0 25.2 6.3 0.0 0.0 22.5 23 0.0 0.0 22.3 0.0 40.1 5.4 126.0 30.0 30.0 622 0.0 0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	240 40 160 110 50 240 40 160 110 50 1789 1601 1780 0 1789 0.950 0.483 1789 0 910 43 64 0 910 43 0.92 0.92 0.92 0.92 0.92 261 43 294 0 54 Prot Perm NA pm+pt 8 2 1 8 6 8 8 2 1 5.0 5.0 5.0 5.0 5.0 25.0 25.0 25.0 25.0 24.0 26.0 10.0 40.0% 40.0% 43.3% 16.7% 3.5 3.5 3.5 4.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Splits and Phases: 1: Main Road/Cow Bay Road & Shore Road



Synchro 11 Light Report

2: Shore Road & Oceanlea

Intersection						
Int Delay, s/veh	1.3					
-		EDT			001	000
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4 80	1 70		¥	
Traffic Vol, veh/h	20			10	5	20
Future Vol, veh/h	20	80	170	10	5	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	22	87	185	11	5	22
		0,	100		5	
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	196	0	-	0	322	191
Stage 1	-	-	-	-	191	-
Stage 2	-	-	-	-	131	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-		-	3.518	3.318
Pot Cap-1 Maneuver	1377	-		-	672	851
Stage 1	10/1	-	-	-	841	-
	-					
Stage 2	-	-	-	-	895	-
Platoon blocked, %	10	-	-	-	004	0-1
Mov Cap-1 Maneuver	1377	-	-	-	661	851
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	895	-
, i i i i i i i i i i i i i i i i i i i						
Annroach	ED				CD	
Approach	EB		WB		SB	
			0		9.6	
HCM Control Delay, s	1.5		0			
HCM Control Delay, s HCM LOS	1.5		0		Α	
	1.5		U		A	
HCM LOS	1.5	FBI		WRT		SBI n1
HCM LOS Minor Lane/Major Mvmt	1.5	EBL	EBT	WBT	WBR	SBLn1
HCM LOS Minor Lane/Major Mvmt Capacity (veh/h)	1.5	1377	EBT -	-	WBR -	805
HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio	1.5	1377 0.016	EBT -	-	WBR -	805 0.034
HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)	1.5	1377 0.016 7.7	<u>EBT</u> - - 0	- - -	WBR - -	805 0.034 9.6
HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio	1.5	1377 0.016	EBT -	-	WBR -	805 0.034

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations					M	02.1
Traffic Vol, veh/h	0	4 80	1 80	0	""	0
Future Vol, veh/h	0	80	180	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	Stop -	None
Storage Length		None -	-	None -	- 0	inorie
Veh in Median Storage, #	-	-0	-	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	87	196	0	0	0
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	196	0	-	0	283	196
Stage 1	- 190	-	-	-	196	- 190
Stage 2	-		-	-	87	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1377	-	-	-	707	845
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	936	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1377	-	-	-	707	845
Mov Cap-2 Maneuver	-	-	-	-	707	-
Stage 1	-	-	-	-	837	-
Stage 2				-	936	
Oldge Z	-		-	-	550	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		0	
HCM LOS					А	
Miner Lene (Meier Munet			EDT			001-1
Minor Lane/Major Mvmt		EBL	EBT	WBT		SBLn1
Capacity (veh/h)		1377	-	-	-	-
HCM Lane V/C Ratio		-	-	-	-	-
HCM Control Delay (s)		0	-	-	-	0
HCM Lane LOS		А	-	-	-	А
HCM 95th %tile Q(veh)		0	-	-	-	-

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
	EDL			VVDR	→ SBL	SDR
Lane Configurations	35	2 0	1 40	10		20
Traffic Vol, veh/h Future Vol, veh/h	35 35	20	40 40	10 10	10 10	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	22	43	11	11	22
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	54	0	-	0	147	49
Stage 1	- 54	-	-	-	49	49
	-		-	-	49 98	-
Stage 2		-				
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1551	-	-	-	845	1020
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	926	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1551	-	-	-	824	1020
Mov Cap-2 Maneuver	-	-	-	-	824	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-		926	-
oldgo L					020	
Approach	EB		WB		SB	
HCM Control Delay, s	4.7		0		8.9	
HCM LOS					А	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1551	-	-		945
HCM Lane V/C Ratio		0.025				945 0.035
			-	-	-	
HCM Control Delay (s)		7.4	0	-	-	8.9
HCM Lane LOS		A	A	-	-	A
HCM 95th %tile Q(veh)		0.1	-	-	-	0.1

	4	*	1	1	4	Ŧ
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	3	1			3	•
Traffic Volume (vph)	120	80	1 450	200	80	240
Future Volume (vph)	120	80	450	200	80	240
Satd. Flow (prot)	1789	1601	1806	0	1789	1883
Flt Permitted	0.950				0.229	
Satd. Flow (perm)	1789	1601	1806	0	431	1883
Satd. Flow (RTOR)		87	44			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	130	87	706	0	87	261
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	22.5	22.5	22.5		9.5	22.5
Total Split (s)	22.6	22.6	27.8		9.6	37.4
Total Split (%)	37.7%	37.7%	46.3%		16.0%	62.3%
Yellow Time (s)	31.1 %	37.7 %	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		0.0	1.0
	0.0	0.0	0.0		0.0	0.0
Lost Time Adjust (s)	0.0 4.5	0.0 4.5	0.0 4.5		0.0 3.5	0.0 4.5
Total Lost Time (s)	4.5	4.5				4.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?	Nerre	Nerra	Yes		Yes	N.4 -
Recall Mode	None	None	Max		None	Max
Act Effct Green (s)	9.0	9.0	31.7		37.6	37.5
Actuated g/C Ratio	0.17	0.17	0.60		0.72	0.71
v/c Ratio	0.42	0.25	0.64		0.19	0.19
Control Delay	23.1	7.1	15.2		4.5	4.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	23.1	7.1	15.2		4.5	4.4
LOS	С	А	В		А	А
Approach Delay	16.7		15.2			4.4
Approach LOS	В		В			А
Queue Length 50th (m)	10.6	0.0	48.5		2.1	7.6
Queue Length 95th (m)	22.5	8.4	#116.6		6.5	18.2
Internal Link Dist (m)	126.0		76.0		0.0	36.0
Turn Bay Length (m)	30.0				30.0	00.0
Base Capacity (vph)	617	609	1107		466	1343
Starvation Cap Reductn	017	009	0		400	0
Spillback Cap Reductin	0	0	0		0	0
			0		0	0
Storage Cap Reductn	0	0	0 64		0 10	0 10
Reduced v/c Ratio	0.21	0.14	0.64		0.19	0.19
Intersection Summary						
Cycle Length: 60						
Actuated Cycle Length: 52.5						
Natural Cycle: 65						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.64						
Intersection Signal Delay: 12.5					ersection LO	10· D
Intersection Signal Delay, 12.5	7 00/				U Level of S	
Intersection Capacity Utilization 5	1.0%			IC	U LEVELOT S	el vice R
Analysis Period (min) 15	da					
# 95th percentile volume excee		eue may be	e longer.			
Queue shown is maximum after	er two cycles.					
			_			
Splits and Phases: 1: Main Roa	ad/Cow Bay Ro	ad & Shore	e Road			
	•					
Ø1	Ø2					
0.6	-					



Internection						
Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		đ			M	
Traffic Vol. veh/h	20	240	1 40	10	10	15
Future Vol, veh/h	20	240	140	10	10	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	NUNE -	-	NUNE -	- 0	NUILE
Veh in Median Storage, #	-	- 0	-	-	0	-
	-	0	0	-	0	-
Grade, %						
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	261	152	11	11	16
Major/Minor	Major1		Major2		Minor2	
		0		0		150
Conflicting Flow All	163	0	-	0	463	158
Stage 1	-	-	-	-	158	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1416	-	-	-	557	887
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1416	-	-	-	547	887
Mov Cap-2 Maneuver	-	-		-	547	-
Stage 1	_	_	_	_	855	_
Stage 2	-	-			748	
Sidye z	-	-	-	-	740	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.6		0		10.3	
HCM LOS			·		B	
					5	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1416	-	-	-	710
HCM Lane V/C Ratio		0.015	-	-	-	0.038
HCM Control Delay (s)		7.6	0	-	-	10.3
HCM Lane LOS		А	А	-	-	В
HCM 95th %tile Q(veh)		0	-	-	-	0.1
		v				0.1

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	LDL			WDR		JDR
	٥	250	1 50	٥	Y	0
Traffic Vol, veh/h Future Vol, veh/h	0 0	250 250	150	0 0	0	0
	0	250	150	0	0	0
Conflicting Peds, #/hr	-	-	U Free	-		
Sign Control	Free -	Free		Free	Stop	Stop
RT Channelized		None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	272	163	0	0	0
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	163	0	-	0	435	163
Stage 1	-	-	-	-	163	-
Stage 2	-		-	-	272	-
	4.12				6.42	6.22
Critical Hdwy		-	-	-	6.42 5.42	
Critical Hdwy Stg 1	-	-	-	-		-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1416	-	-	-	578	882
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	774	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1416	-	-	-	578	882
Mov Cap-2 Maneuver	-	-	-	-	578	-
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	774	-
Ŭ						
Annroach	EB		WB		SB	
Approach						
HCM Control Delay, s	0		0		0	
HCM LOS					А	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1416	-	-	-	-
HCM Lane V/C Ratio		-	-	-	-	-
HCM Control Delay (s)		0	-	-	-	- 0
HCM Control Delay (S)		A	-	-	-	A
		0	-	-	-	A -
HCM 95th %tile Q(veh)		U	-	-	-	-

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	EDL			VIDR	→ SBL	SDK
	40	4 50	1	10		40
Traffic Vol, veh/h Future Vol, veh/h	40 40	50 50	50 50	10 10	15 15	40 40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	54	54	11	16	43
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	65	0			200	60
			-	0		60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	140	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1537	-	-	-	789	1005
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	887	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1537	-	-	-	766	1005
Mov Cap-2 Maneuver	-	-	-	-	766	-
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	887	-
	50				0.0	
Approach	EB		WB		SB	
HCM Control Delay, s	3.3		0		9.2	
HCM LOS					Α	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1537	-	-		926
HCM Lane V/C Ratio		0.028				926 0.065
		0.028	-	-	-	0.065 9.2
HCM Control Delay (s)			0	-	-	
HCM Lane LOS		A	А	-	-	A
HCM 95th %tile Q(veh)		0.1	-	-	-	0.2

	1	*	1	1	4	ţ
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	3	1	1.		5	•
Traffic Volume (vph)	240	40	177	122	50	740
Future Volume (vph)	240	40	177	122	50	740
Satd. Flow (prot)	1789	1601	1780	0	1789	1883
Flt Permitted	0.950			·	0.463	
Satd. Flow (perm)	1789	1601	1780	0	872	1883
Satd. Flow (RTOR)		43	68	•	0.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	0.02				5.02	,
Lane Group Flow (vph)	261	43	325	0	54	804
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases	- ·	8	-		6	5
Detector Phase	8	8	2		1	6
Switch Phase	U	0	2			0
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	22.5	22.5	22.5		9.5	22.5
	22.5	22.5	22.5		9.5 9.5	22.5 37.5
Total Split (s)						
Total Split (%)	37.5%	37.5%	46.7%		15.8%	62.5%
Yellow Time (s)	3.5	3.5	3.5		4.0	3.5
All-Red Time (s)	1.0	1.0	1.0		0.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5		4.0	4.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	Max		None	Max
Act Effct Green (s)	13.3	13.3	29.7		36.0	35.5
Actuated g/C Ratio	0.23	0.23	0.51		0.62	0.61
v/c Ratio	0.64	0.11	0.34		0.09	0.70
Control Delay	26.7	6.5	9.8		5.7	13.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.7	6.5	9.8		5.7	13.0
LOS	20.7 C	0.5 A	9.0 A		5.7 A	13.0 B
Approach Delay	23.8	~	9.8		Λ	12.6
Approach LOS	23.0 C		9.0 A			12.0 B
	23.2	0.0	A 16.3		1.8	в 47.6
Queue Length 50th (m)						
Queue Length 95th (m)	41.7	5.7	37.6		6.2	#108.4
Internal Link Dist (m)	126.0		76.0			76.0
Turn Bay Length (m)	30.0				30.0	
Base Capacity (vph)	559	530	947		629	1154
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.47	0.08	0.34		0.09	0.70
Intersection Summary						
Cycle Length: 60						
Actuated Cycle Length: 57.8						
Natural Cycle: 60						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.70						
Intersection Signal Delay: 14.3				Int	tersection L	OS B
Intersection Capacity Utilization 59.	7%				U Level of S	
	.1 /0			iU	O LEVELUI (
Analysis Period (min) 15 # 95th percentile volume exceeds			longer			
# 95th percentile volume exceeds Queue shown is maximum after		eue may be	longer.			
Queue Shown IS maximum atter	two cycles.					
Splits and Phases: 1: Main Road	l/Cow Bay Ro	ad & Shore	Road			
	.,					
01	Ø2					



2: Shore Road & Oceanlea

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations				WDIX	¥	ODIX
Traffic Vol, veh/h	20	4 88	1 88	10	**	20
Future Vol, veh/h	20	88	188	10	5	20
Conflicting Peds, #/hr	0	0	0	_ 0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	96	204	11	5	22
	22	30	204		J	22
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	215	0	-	0	350	210
Stage 1	-	-	-	-	210	-
Stage 2	-	-	-	-	140	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	4.12	-	-		5.42	0.22
	-		-			-
Critical Hdwy Stg 2		-	-	-	5.42	
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1355	-	-	-	647	830
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	887	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1355	-	-	-	636	830
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	887	-
Oldge 2					001	
Approach	EB		WB		SB	
HCM Control Delay, s	1.4		0		9.8	
HCM LOS			-		A	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1355	-	-	-	782
HCM Lane V/C Ratio		0.016	-	-	-	0.035
HCM Control Delay (s)		7.7	0	-	-	9.8
HCM Lane LOS		A	Ă		-	A
HCM 95th %tile Q(veh)		0	-	_	_	0.1
		0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
	EDL			WDK		SDK
Lane Configurations	0	4 88	1 99	0	¥	0
Traffic Vol, veh/h	0	88 88		0 0	0	0
Future Vol, veh/h	-		199	-	0	0
Conflicting Peds, #/hr	_ 0	_ 0	_ 0	_ 0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	0	96	216	0	0	0
	-				-	
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	216	0	-	0	312	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	96	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1354	-	-	-	681	824
Stage 1	-				820	
Stage 2	-	-	-	-	928	-
Platoon blocked. %	-	-	-	-	520	
Mov Cap-1 Maneuver	1354	-	-	-	681	824
Mov Cap-2 Maneuver	-	-	-	-	681	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	928	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		0	
HCM LOS	U		U		A	
					A	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1354	-	-	-	-
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	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	LDL				¥	JUN
	35	22	1 44	10	10	20
Traffic Vol, veh/h						
Future Vol, veh/h	35	22	44	10	10	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	38	24	48	11	11	22
WWINTER IOW	50	27	-10			~~~~
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	59	0	-	0	154	54
Stage 1	-	-	-	-	54	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-		5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1545	-	-	-	838	1013
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	909	-
	-		-		924	-
Platoon blocked, %		-	-	-	0.17	1010
Mov Cap-1 Maneuver	1545	-	-	-	817	1013
Mov Cap-2 Maneuver	-	-	-	-	817	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	924	-
Approach	EB		WB		SB	
HCM Control Delay, s	4.5		0		9	
HCM LOS					А	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1545	-	-	-	938
HCM Lane V/C Ratio		0.025	-	-		0.035
		7.4				
HCM Control Delay (s)			0	-	-	9
HCM Lane LOS		A	А	-	-	A
HCM 95th %tile Q(veh)		0.1	-	-	-	0.1

	1	•	Ť	1	4	ţ
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	5	1	ţ,		3	+
Traffic Volume (vph)	150	90	608	265	80	287
Future Volume (vph)	150	90	608	265	80	287
Satd. Flow (prot)	1789	1601	1806	0	1789	1883
Flt Permitted	0.950				0.117	
Satd. Flow (perm)	1789	1601	1806	0	220	1883
Satd. Flow (RTOR)		98	43			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	163	98	949	0	87	312
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	22.5	22.5	22.5		9.5	22.5
Total Split (s)	22.5	22.5	28.0		9.5	37.5
Total Split (%)	37.5%	37.5%	46.7%		15.8%	62.5%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		0.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5		0.0 3.5	4.5
Lead/Lag	4.5	ч.J	4.5 Lag		Lead	ч.J
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	Max		None	Max
Act Effct Green (s)						
	10.0	10.0	31.5		37.2	37.1
Actuated g/C Ratio	0.19	0.19	0.59		0.70	0.70
v/c Ratio	0.48	0.26	0.87		0.27	0.24
Control Delay	23.7	6.6	28.6		6.0	5.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	23.7	6.6	28.6		6.0	5.0
LOS	С	А	С		А	А
Approach Delay	17.3		28.6			5.2
Approach LOS	В		С			Α
Queue Length 50th (m)	13.7	0.0	~105.3		2.3	10.2
Queue Length 95th (m)	27.1	8.7	#183.3		7.2	24.0
Internal Link Dist (m)	126.0		126.0			126.0
Turn Bay Length (m)	30.0				30.0	
Base Capacity (vph)	608	608	1090		332	1318
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.27	0.16	0.87		0.26	0.24
Intersection Summary	0.21	0.10	0.01		0.20	V.2T
Cycle Length: 60						
Actuated Cycle Length: 53						
Natural Cycle: 80						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.87						
Intersection Signal Delay: 21.0				Int	tersection LC	DS: C
Intersection Capacity Utilization 7	17%				U Level of S	
Analysis Period (min) 15	1.7 /0			10		
 Volume exceeds capacity, que 	aua is theoratic	ally infinite				
Queue shown is maximum after		any minine.				
# 95th percentile volume excee			longer			
Queue shown is maximum after		sac may be	longer.			
Queue snown is maximum and	er two cycles.					
Splits and Phases: 1: Main Roa	ad/Cow Bay Ro	ad & Shore	Road			
4						
Ø1	Ø2					

01 02 9.5s 28s 06 37.5s 22.5s 22.5s

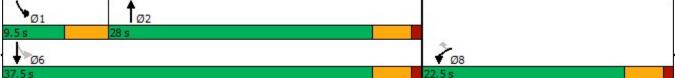
2: Shore Road & Oceanlea

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	LDL				¥	JUIN
Traffic Vol, veh/h	20	265	155	10	10	15
		265				
Future Vol, veh/h	20	265	155	10	10	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	288	168	11	11	16
WWINTERFORM	22	200	100			10
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	179	0	-	0	506	174
Stage 1	-	-	-	-	174	-
Stage 2	-	-	-	-	332	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	- 12	-	-	-	5.42	- 0.22
Critical Hdwy Stg 2	-	-		-	5.42	-
	- 2.218		-			- 3.318
Follow-up Hdwy		-	-	-	3.518	
Pot Cap-1 Maneuver	1397	-	-	-	526	869
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	727	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1397	-	-	-	516	869
Mov Cap-2 Maneuver	-	-	-	-	516	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	727	-
01490 2						
Approach	EB		WB		SB	
HCM Control Delay, s	0.5		0		10.5	
HCM LOS					В	
					_	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1397	-	-	-	682
HCM Lane V/C Ratio		0.016	-	-	-	0.04
HCM Control Delay (s)		7.6	0	-	-	10.5
HCM Lane LOS		A	Ă	-	-	B
HCM 95th %tile Q(veh)		0	-	-	-	0.1
		0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	LDL	4	1	VVDIX	M	ODIX
Traffic Vol, veh/h	0	276	166	0	0	0
Future Vol, veh/h	0	276	166	0	0	0
Conflicting Peds, #/hr	0	270	001	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	- Si0p	None
Storage Length	-	NUILE		-	- 0	NUILE
Veh in Median Storage, #	-	-	- 0	-	0	-
Grade, %	-	0	0	-	0	-
	- 92	92	92	92	92	92
Peak Hour Factor						
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	300	180	0	0	0
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	180	0		0	480	180
Stage 1	-	-	-	-	180	-
Stage 2		-	-		300	
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-		5.42	- 0.22
Critical Hdwy Stg 2	-	-	-	-	5.42	_
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1396	-	-	_	545	863
Stage 1	-	-	-		851	- 005
Stage 2	-	-	-	-	752	-
Platoon blocked, %	-	-	-	-	152	-
Mov Cap-1 Maneuver	1396	-	-	-	545	863
Mov Cap-1 Maneuver Mov Cap-2 Maneuver					545 545	- 003
	-	-	•	-	545 851	-
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	752	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
						0.51 (
Minor Lane/Major Mvmt		EBL	EBT	WBT		SBLn1
Capacity (veh/h)		1396	-	-	-	-
HCM Lane V/C Ratio		-	-	-	-	-
HCM Control Delay (s)		0	-	-	-	0
HCM Lane LOS		А	-	-	-	А
HCM 95th %tile Q(veh)		0	-	-	-	-

Intersection 3.7 Movement EBL EBT WBT WBR SBL SBR Lane Configurations 1 1 1 1 1 1 1 1 1 1 1 1 1 40 Future Vol, veh/h 40 55 55 10 15 40 Conflicting Peds, #/hr 0 - 0							
Int Delay, s/veh 3.7 Movement EBL EBT WBT WBR SBL SBR Lane Configurations 1 1 40 55 55 10 15 40 Future Vol, veh/h 40 55 55 10 15 40 Conflicting Peds, #/hr 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Intersection						
Lane Configurations Image: Configurations <	Int Delay, s/veh	3.7					
Lane Configurations Image: Configurations <	Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h 40 55 55 10 15 40 Future Vol, veh/h 40 55 55 10 15 40 Conflicting Peds, #/hr 0 0 0 0 0 0 0 Sign Control Free Free Free Free Free Stop Stop RT Channelized - None - 0 - 0 - Veh in Median Storage, # - 0 0 - 0 - - Grade, % - 0 0 - 0 - - - Peak Hour Factor 92 92 92 92 92 92 92 92 92 Heavy Vehicles, % 2							02.1
Future Vol, veh/h 40 55 55 10 15 40 Conflicting Peds, #/hr 0 <td></td> <td>40</td> <td>55</td> <td>55</td> <td>10</td> <td></td> <td>40</td>		40	55	55	10		40
Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 Sign Control Free Free Free Free Stop Stop RT Channelized - None - 0 - 0 Storage Length - - 0 0 - 0 - Grade, % - 0 0 - 0 - 0 - Peak Hour Factor 92 93 140							
Sign Control Free Free Free Free Free Stop Stop RT Channelized - None - None - None Storage Length - - 0 0 - 0 Grade, % - 0 0 - 0 - Grade, % - 0 0 - 0 - Peak Hour Factor 92 92 92 92 92 92 Heavy Vehicles, % 2 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>• •</td>							• •
RT Channelized - None - None - None Storage Length - - 0 0 - 0 - Grade, % - 0 0 - 0 - 0 - Peak Hour Factor 92 Maior/Image/Im		-					
Storage Length - - - 0 - 0 - Veh in Median Storage, # - 0 0 - 0 - - Grade, % - 0 0 - 0 - 0 - Peak Hour Factor 92 92 92 92 92 92 92 92 Heavy Vehicles, % 2 1 1 6 2 2 - 5 5 2 - 5 1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Veh in Median Storage, # 0 0 - 0 - Grade, % - 0 0 - 0 - Peak Hour Factor 92 92 92 92 92 92 92 Heavy Vehicles, % 2 1 1 1 1 1 1 1 1 1 1 1 1 1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Grade, % - 0 0 - 0 - Peak Hour Factor 92 94							
Peak Hour Factor 92 93 93 94							
Heavy Vehicles, % 2 2 2 2 2 2 2 2 Mvmt Flow 43 60 60 11 16 43 Major/Minor Major1 Major2 Minor2 Minor2 Conflicting Flow All 71 0 - 0 212 66 Stage 1 - - - 66 - Stage 2 - - - 66 - Critical Hdwy 4.12 - - - 6.42 6.22 - - 5.42 - - Critical Hdwy Stg 1 - - 5.42 - - Critical Hdwy Stg 2 - - - 5.42 - - Critical Hdwy Stg 2 - - - 5.42 - - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - 753 998 Mov Cap-1 Maneuver 1529 - - 753 998	Grade, %						
Mvmt Flow 43 60 60 11 16 43 Major/Minor Major1 Major2 Minor2 Minor2 Conflicting Flow All 71 0 - 0 212 66 Stage 1 - - 66 - Stage 2 - - 146 - Critical Hdwy 4.12 - - 6.42 6.22 - - 5.42 - - 5.42 - - 776 998 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - 957 - Stage 2 - - 881 - Platoon blocked, % - - 753 998 Mov Cap-2 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver 1529 - - 753 - Stage 1 - - 929 - Stage 2 - - 881 - - <							
Major/Minor Major1 Major2 Minor2 Conflicting Flow All 71 0 - 0 212 66 Stage 1 - - - 66 - Stage 2 - - - 146 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 776 998 Stage 1 - - - 957 - Stage 2 - - - 776 998 Stage 1 - - - 957 - Stage 2 - - - 753 998 Mov Cap-1 Maneuver 1529 - - 753 - Stage 1 - - - 929 - stage							
Conflicting Flow All 71 0 - 0 212 66 Stage 1 - - - 66 - Stage 2 - - - 146 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - - 957 - Stage 2 - - - 881 - Platoon blocked, % - - - 753 998 Mov Cap-2 Maneuver 1529 - - 753 - Stage 1 - - - 929 - Stage 2 - - - 881	Mvmt Flow	43	60	60	11	16	43
Conflicting Flow All 71 0 - 0 212 66 Stage 1 - - - 66 - Stage 2 - - - 146 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - - 957 - Stage 2 - - - 881 - Platoon blocked, % - - - 753 998 Mov Cap-2 Maneuver 1529 - - 753 - Stage 1 - - - 929 - Stage 2 - - - 881							
Conflicting Flow All 71 0 - 0 212 66 Stage 1 - - - 66 - Stage 2 - - - 146 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - - 957 - Stage 2 - - - 881 - Platoon blocked, % - - - 753 998 Mov Cap-2 Maneuver 1529 - - 753 - Stage 1 - - 929 - Stage 1 - - 929 Stage 2 -	Maior/Minor	Maior1		Maior2		Minor2	
Stage 1 - - - 66 - Stage 2 - - - 146 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - - 881 - Platoon blocked, % - - - 753 998 Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 998 Mov Cap-2 Maneuver - - 881 - Stage 1 - - - 881 - Mov Cap-2 Maneuver - - 881 - Stage 2 -							66
Stage 2 - - - 146 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - - 881 - Platoon blocked, % - - - 753 998 Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 929 - Stage 1 - - - 881 - Mov Cap-2 Maneuver - - 881 - Stage 2 - - - 881 - HCM Control De			-				
Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - - 881 - Platoon blocked, % - - - 753 998 Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 929 - Stage 1 - - - 881 - Stage 2 - - - 881 - Mov Cap-2 Maneuver - - - 881 - HCM Control Delay, s 3.1 0 </td <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	0						
Critical Hdwy Stg 1 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - 957 - Stage 2 - - - 881 - Platoon blocked, % - - 753 998 Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 - - Stage 1 - - - 753 - - Stage 1 - - - 881 - Stage 2 - - - 881 - Mov Control Delay, s 3.1 0 9.2 - HCM Loos A - - 917 HCM Lane V/C Ratio 0.028 - - 0.065 HCM Lane LOS <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - 957 - Stage 2 - - 881 - Platoon blocked, % - - 753 998 Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 998 Mov Cap-2 Maneuver - - 753 - Stage 1 - - - 881 - Stage 2 - - - 881 - Stage 2 - - - 881 - VEX - - 881 - - HCM Control Delay, s 3.1 0 9.2 - HCM Los A - - 917 HCM Lane V/C Ratio 0.028 - -				_			
Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - 957 - Stage 2 - - 881 - Platoon blocked, % - - 881 - Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 - - Stage 1 - - - 929 - - Stage 1 - - - 881 - Stage 2 - - - 881 - Stage 2 - - - 881 - Stage 2 - - - 881 - Monor Cap-to Delay, s 3.1 0 9.2 - HCM Control Delay, s 3.1 0 9.2 - HCM Lane V/C Ratio 0.028 - - 917 HCM Lane LOS A - </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Pot Cap-1 Maneuver 1529 - - 776 998 Stage 1 - - - 957 - Stage 2 - - - 881 - Platoon blocked, % - - - 881 - Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 - - Stage 1 - - - 929 - Stage 2 - - - 881 - Stage 1 - - - 881 - Stage 2 - - - 881 - Kage 2 - - - 881 - <td< td=""><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td></td<>				_			
Stage 1 - - - 957 - Stage 2 - - - 881 - Platoon blocked, % - - - 881 - Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 - - Stage 1 - - - 929 - - Stage 2 - - - 881 - Approach EB WB SB - HCM Control Delay, s 3.1 0 9.2 - HCM LOS A - - 917 HCM Lane V/C Ratio 0.028 - - 9.2 HCM Lane V/C Ratio 0.028 - - 9.2 HCM Lane LOS A A - -							
Stage 2 - - - 881 - Platoon blocked, % - - - - - Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - - 753 - Stage 1 - - - 929 - Stage 2 - - - 881 - Approach EB WB SB - HCM Control Delay, s 3.1 0 9.2 - HCM LOS A - - 917 Minor Lane/Major Mvmt EBL EBT WBT WBR SBL11 Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 0.065 HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A - - A							
Platoon blocked, % - - - Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - 753 - Stage 1 - - - 929 - Stage 2 - - - 881 - Approach EB WB SB - HCM Control Delay, s 3.1 0 9.2 - HCM LOS A - - 917 HCM Lane V/C Ratio 0.028 - - 9.2 HCM Control Delay (s) 7.4 0 - 9.2			-	-			-
Mov Cap-1 Maneuver 1529 - - 753 998 Mov Cap-2 Maneuver - - - 753 - Stage 1 - - - 929 - Stage 2 - - - 881 - Approach EB WB SB - HCM Control Delay, s 3.1 0 9.2 - HCM LOS A - - 917 Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 9.2 HCM Control Delay (s) 7.4 0 - 9.2		-	-	-	-	881	-
Mov Cap-2 Maneuver - - - 753 - Stage 1 - - - 929 - Stage 2 - - - 881 - Approach EB WB SB - HCM Control Delay, s 3.1 0 9.2 - HCM LOS A - - 917 Minor Lane/Major Mvmt EBL EBT WBT WBR SBL11 Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 0.065 HCM Control Delay (s) 7.4 0 - 9.2			-	-	-		
Stage 1 - - - 929 - Stage 2 - - - 881 - Approach EB WB SB - HCM Control Delay, s 3.1 0 9.2 - HCM LOS A - - 917 Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 9.2 HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A A - A	Mov Cap-1 Maneuver	1529	-	-	-	753	998
Stage 1 - - - 929 - Stage 2 - - - 881 - Approach EB WB SB - HCM Control Delay, s 3.1 0 9.2 - HCM LOS A - - 917 Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 9.2 HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A A - A	Mov Cap-2 Maneuver	-	-	-	-	753	-
Stage 2 - - - 881 - Approach EB WB SB - HCM Control Delay, s 3.1 0 9.2 - HCM LOS A - - 917 Minor Lane/Major Mvmt EBL EBT WBT WBR SBL11 Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 9.2 HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A A - A		-	-	-	-	929	-
ApproachEBWBSBHCM Control Delay, s3.109.2HCM LOSAMinor Lane/Major MvmtEBLEBTWBTWBRSBL1Capacity (veh/h)1529917HCM Lane V/C Ratio0.0289065HCM Control Delay (s)7.40-9.2HCM Lane LOSAA		-	-	-	-		-
HCM Control Delay, s3.109.2HCM LOSAMinor Lane/Major MvmtEBLEBTWBTWBRSBLn1Capacity (veh/h)1529917HCM Lane V/C Ratio0.0280.065HCM Control Delay (s)7.40-9.2HCM Lane LOSAA							
HCM Control Delay, s3.109.2HCM LOSAMinor Lane/Major MvmtEBLEBTWBTWBRSBLn1Capacity (veh/h)1529917HCM Lane V/C Ratio0.0280.065HCM Control Delay (s)7.40-9.2HCM Lane LOSAA	A I	50				05	
HCM LOS A Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 9165 HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A A - A	Approach						
Minor Lane/Major MvmtEBLEBTWBTWBRSBLn1Capacity (veh/h)1529917HCM Lane V/C Ratio0.0280.065HCM Control Delay (s)7.40-9.2HCM Lane LOSAA		3.1		0			
Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 0.065 HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A A - - A	HCM LOS					A	
Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 0.065 HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A A - - A							
Capacity (veh/h) 1529 - - 917 HCM Lane V/C Ratio 0.028 - - 0.065 HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A A - - A	Minor Lane/Major Mymt		FRI	EBT	W/RT	W/RD	SBI n1
HCM Lane V/C Ratio 0.028 - - 0.065 HCM Control Delay (s) 7.4 0 - - 9.2 HCM Lane LOS A A - - A							
HCM Control Delay (s) 7.4 0 - 9.2 HCM Lane LOS A A - - A							
HCM Lane LOS A A A							
H(M 95th % tile ()(yeh) = 0.1 = -0.2							
	HCM 95th %tile Q(veh)		0.1	-	-	-	0.2

	•	*	1	1	1	ŧ
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	3	1	ţ,		3	•
Traffic Volume (vph)	240	40	177	122	50	740
Future Volume (vph)	284	46	177	172	57	740
Satd. Flow (prot)	1789	1601	1757	0	1789	1883
Flt Permitted	0.950				0.411	
Satd. Flow (perm)	1789	1601	1757	0	774	1883
Satd. Flow (RTOR)		50	96			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	309	50	379	0	62	804
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase	•		_			
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	22.5	22.5	22.5		9.5	22.5
Total Split (s)	22.5	22.5	28.0		9.5	37.5
Total Split (%)	37.5%	37.5%	46.7%		15.8%	62.5%
Yellow Time (s)	37.5%	37.5%	40.7%		4.0	3.5
All-Red Time (s)	3.5 1.0	3.5 1.0	1.0		4.0	3.5 1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
, , ,						
Total Lost Time (s)	4.5	4.5	4.5		4.0	4.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?	AL.	N	Yes		Yes	
Recall Mode	None	None	Max		None	Max
Act Effct Green (s)	14.4	14.4	28.8		34.9	34.4
Actuated g/C Ratio	0.25	0.25	0.50		0.60	0.60
v/c Ratio	0.69	0.11	0.41		0.11	0.72
Control Delay	28.1	6.2	10.3		6.2	14.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.1	6.2	10.3		6.2	14.2
LOS	С	А	В		А	В
Approach Delay	25.1		10.3			13.6
Approach LOS	С		В			В
Queue Length 50th (m)	28.4	0.0	19.4		2.3	52.4
Queue Length 95th (m)	49.9	6.1	42.7		6.9	#108.4
Internal Link Dist (m)	126.0		76.0			76.0
Turn Bay Length (m)	30.0				30.0	
Base Capacity (vph)	558	534	923		564	1120
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.55	0.09	0.41		0.11	0.72
Intersection Summary	0.00	0.09	0.41		0.11	0.12
Cycle Length: 60						
Actuated Cycle Length: 57.8						
Natural Cycle: 60						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.72						~~ ~
Intersection Signal Delay: 15.4					tersection L	
Intersection Capacity Utilization 59	.7%			IC	U Level of S	Service B
Analysis Period (min) 15						
# 95th percentile volume exceed		eue may be	longer.			
Queue shown is maximum after	two cycles.					
Outline of Discourse of Matic Discourse			Deed			
Splits and Phases: 1: Main Road	d/Cow Bay Ro	ad & Shore	Road			
Ø1	Ø2					



Intersection						
Int Delay, s/veh	1					
	-	FDT				000
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	1.	15	Y	
Traffic Vol, veh/h	20	88	188	10	5	20
Future Vol, veh/h	20	145	238	13	8	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	158	259	14	9	22
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	273	0	-	0	468	266
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	202	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1290	-	-	-	553	773
Stage 1		-	-	-	779	-
Stage 2	_	-	-	-	832	-
Platoon blocked, %					002	
Mov Cap-1 Maneuver	1290	-	-	-	542	773
	1290	-	-	-	542 542	-
Mov Cap-2 Maneuver		-				
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	832	-
Approach	EB		WB		SB	
HCM Control Delay, s	1		0		10.5	
HCM LOS	1		U		10.5 B	
					D	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1290	-	-	-	689
HCM Lane V/C Ratio		0.017	-	-	-	0.044
		7.8	0	-	-	10.5
HCM Control Delay (s)				-	-	10.5 B
		7.8 A 0.1	0 A			10.5 B 0.1

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			1,	TIBI(Y	OBIC
Traffic Vol, veh/h	0	4 88	199	0	0	0
Future Vol, veh/h	60	88	199	6	6	53
Conflicting Peds, #/hr	00	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	- Si0p	None
Storage Length	-	NUNE -		-	- 0	NUILE
Veh in Median Storage, #	-	0	- 0	-	0	-
Grade, %	-	0	0	-	0	-
	- 92	92	92	92	92	92
Peak Hour Factor						92
Heavy Vehicles, %	2	2	2	2	2	_
Mvmt Flow	65	96	216	7	7	58
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	223	0		0	446	220
Stage 1		-	-	-	220	
Stage 2	-		-		226	
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-		5.42	- 0.22
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1346	-	-	_	570	820
Stage 1	-	-	-		817	- 020
Stage 2	-	-	-	-	812	-
Platoon blocked, %	-	-	-	-	012	-
Mov Cap-1 Maneuver	1346	-	-	-	541	820
Mov Cap-1 Maneuver Mov Cap-2 Maneuver					541	- 020
	-	-	•	-		-
Stage 1	-	-	-	-	775	-
Stage 2	-	-	-	-	812	-
Approach	EB		WB		SB	
HCM Control Delay, s	3.2		0		10	
HCM LOS	0.2		· ·		B	
					5	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1346	-	-	-	779
HCM Lane V/C Ratio		0.048	-	-	-	0.082
HCM Control Delay (s)		7.8	0	-	-	10
HCM Lane LOS		А	А	-	-	В
HCM 95th %tile Q(veh)		0.2	-	-	-	0.3
. ,						

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations					¥	02
Traffic Vol, veh/h	35	22	1 44	10	10	20
Future Vol, veh/h	38	22	44	10	10	20
Conflicting Peds, #/hr	0	23	47	0	0	23
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-			
		None		None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	27	51	11	11	25
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	62	0	-	0	166	57
	- 02	-	-	-		
Stage 1					57	-
Stage 2	-	-	-	-	109	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1541	-	-	-	824	1009
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	916	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1541	-	-	-	802	1009
Mov Cap-2 Maneuver	-	-	-	-	802	1000
	-	-	-		940	-
Stage 1		-		-	940 916	
Stage 2	-	-	-	-	916	-
Approach	EB		WB		SB	
HCM Control Delay, s	4.5		0		9	
HCM LOS			•		Ā	
					71	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1541	-	-	-	936
HCM Lane V/C Ratio		0.027	-	-	-	0.038
HCM Control Delay (s)		7.4	0	-	-	9
HCM Lane LOS		А	A	-	-	A
HCM 95th %tile Q(veh)		0.1	-	-	-	0.1
		0.1				0.1

	1	*	1	1	4	ŧ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	5	1	î.		5	+	
Traffic Volume (vph)	150	90	608	265	80	287	
Future Volume (vph)	206	98	608	323	88	287	
Satd. Flow (prot)	1789	1601	1795	0	1789	1883	
Flt Permitted	0.950			-	0.071		
Satd. Flow (perm)	1789	1601	1795	0	134	1883	
Satd. Flow (RTOR)		107	47				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	224	107	1012	0	96	312	
Turn Type	Prot	Perm	NA		pm+pt	NA	
Protected Phases	8		2		1	6	
Permitted Phases		8			6		
Detector Phase	8	8	2		1	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0		11.0	24.0	
Total Split (s)	24.0	24.0	55.0		11.0	66.0	
Total Split (%)	26.7%	26.7%	61.1%		12.2%	73.3%	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		4.0	6.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Recall Mode	None	None	Max		None	Max	
Act Effct Green (s)	15.1	15.1	52.4		63.0	61.0	
Actuated g/C Ratio	0.17	0.17	0.59		0.72	0.69	
v/c Ratio	0.73	0.29	0.93		0.44	0.24	
Control Delay	48.8	8.7	34.4		13.8	6.0	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	48.8	8.7	34.4		13.8	6.0	
LOS	D	А	С		В	А	
Approach Delay	35.8		34.4			7.8	
Approach LOS	D		С			А	
Queue Length 50th (m)	35.7	0.0	152.8		4.3	17.4	
Queue Length 95th (m)	59.0	12.8	#255.5		14.9	29.6	
Internal Link Dist (m)	126.0		126.0			126.0	
Turn Bay Length (m)	30.0				30.0		
Base Capacity (vph)	365	412	1085		227	1303	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.61	0.26	0.93		0.42	0.24	
Intersection Summary							
Cycle Length: 90							
Actuated Cycle Length: 88.1							
Natural Cycle: 90							
Control Type: Semi Act-Uncoord							
Maximum v/c Ratio: 0.93							
Intersection Signal Delay: 28.5				Int	ersection L0	29. C	
Intersection Capacity Utilization 74.	2%				U Level of S		
Analysis Period (min) 15	∠ /0						
# 95th percentile volume exceeds	canacity cu		longer				
Queue shown is maximum after		cue may be	longer.				
	•		_				
Splits and Phases: 1: Main Road	/Cow Bay Ro	ad & Shore	Road				
Ø1 Ø2							



2: Shore Road & Oceanlea

Intersection						
Int Delay, s/veh	0.8					
		EDT			001	000
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	1.	10	¥	45
Traffic Vol, veh/h	20	265	155	10	10	15
Future Vol, veh/h	20	331	219	14	14	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	360	238	15	15	16
					11 0	
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	253	0	-	0	650	246
Stage 1	-	-	-	-	246	-
Stage 2	-	-	-	-	404	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1312	-	-	-	434	793
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	674	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1312	-	-	-	425	793
Mov Cap-2 Maneuver	-	-			425	-
Stage 1		-	_		778	_
Stage 2		-			674	
Slaye 2	-	-	-	-	074	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.4		0		11.8	
HCM LOS					В	
		501	COT			
Minor Lane/Major Mvmt		EBL	EBT	WBT		SBLn1
Capacity (veh/h)		1312	-	-	-	559
HCM Lane V/C Ratio		0.017	-	-	-	0.056
HCM Control Delay (s)		7.8	0	-	-	11.8
HCM Lane LOS		Α	Α	-	-	В
HCM 95th %tile Q(veh)		0.1	-	-	-	0.2
. ,						

Adverment EBL EBT WBT WBR SBL SBR cane Configurations C C C V							
nt Delay, s/veh 2.2 Movement EBL EBT WBT WBR SBL SBR are Configurations 1	Intersection						
ane Configurations Image: Configuration of the second	Int Delay, s/veh	2.2					
ane Configurations Image: Configuration of the second	-	FBI	FBT	WBT	WBR	SBI	SBR
Traffic Vol, veh/h 0 276 166 0 0 0 Free Vol, veh/h 70 276 166 8 8 68 Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 Sign Control Free Free Free Free Stop Stop Stop Storage Length - - - 0 0 - 0 - Storage Length - - 0 0 - 0 - - Peak Hour Factor 92 <t< td=""><td></td><td></td><td></td><td></td><td>TIDI</td><td></td><td>ODI</td></t<>					TIDI		ODI
Future Vol, veh/h 70 276 166 8 8 68 Conflicting Peds, #/hr 0 <td></td> <td>٥</td> <td>276</td> <td>166</td> <td>٥</td> <td></td> <td>٥</td>		٥	276	166	٥		٥
Conflicting Peds, #/hr 0							
Sign Control Free Free Free Free Free Free Free Stop Stop RT Channelized - None - None - None - None Storage Length - - 0 0 - 0 - Stade, % - 0 0 - 0 - 0 - Stade, % - 0 0 - 0 - 0 - Peak Hour Factor 92							
RT Channelized - None - None - None Personander State None Personander None		-	-	-	-		
Storage Length - - - 0 0 - Veh in Median Storage, # - 0 0 - 0 - 0 Grade, % - 0 0 - 0 - 0 - Peak Hour Factor 92 42 7 74 Amm Flow 76 300 180 9 9 74 74 74 74 75 74 74 74 75 74 74 75 74 74 75 74 74 75 75 74 75 75 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
/eh in Median Storage, # - 0 0 - 0 - Grade, % - 0 0 - 0 - 0 - Peak Hour Factor 92 92 92 92 92 92 92 92 92 Hour Factor 92 92 1 5 5 5 441 185 1							
Grade, % - 0 0 - 0 - Peak Hour Factor 92						-	
Peak Hour Factor 92 93 94 94							
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2 Avmt Flow 76 300 180 9 9 74 Major/Minor Major1 Major2 Minor2 Minor2 Conflicting Flow All 189 0 - 0 637 185 Stage 1 - - - 185 - 185 - Stage 2 - - - 6.42 6.22 - - - 5.42 - Critical Hdwy Stg 1 - - - 5.42 - - - 5.42 - - - 5.42 - - - 5.42 - - - 5.42 -							
Avmit Flow 76 300 180 9 9 74 Major/Minor Major1 Major2 Minor2 Minor2 Conflicting Flow All 189 0 - 0 637 185 Stage 1 - - - 185 - 185 - Stage 2 - - - 452 - - 5.42 - Critical Hdwy Stg 1 - - 5.42 - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - - 5.42 - Collow-up Hdwy 2.218 - - 3.518 3.318 - - 441 857 Stage 1 - - - 847 - - 847 - Stage 1 - - - 412 857 Mov Cap-1 Maneuver 1385 - - 412 - Stage 1 -<							
Major/Minor Major1 Major2 Minor2 Conflicting Flow All 189 0 - 0 637 185 Stage 1 - - - 185 - Stage 2 - - - 452 - Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Critical Hdwy Stg 2 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 1 - - 847 - - 847 - Stage 1 - - - 441 857 - - 441 857 Mov Cap-1 Maneuver 1385 - - 412 857 Mov Cap-2 Maneuver - - - 791 - Stage 1 - - - 791 - Stage 1 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
Conflicting Flow All 189 0 - 0 637 185 Stage 1 - - - 185 - Stage 2 - - - 452 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Collow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 2 - - - 641 - Platoon blocked, % - - - 412 857 Avor Cap-2 Maneuver 1385 - - 412 - Stage 1 - - - 641 - Stage 2 - - 641 - - Stage 2 - - 641 -	Mvmt Flow	76	300	180	9	9	74
Conflicting Flow All 189 0 - 0 637 185 Stage 1 - - - 185 - Stage 2 - - 452 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 2 - - - 847 - Stage 1 - - - 847 - Stage 2 - - - 641 - Platoon blocked, % - - - 412 857 Alov Cap-1 Maneuver 1385 - - 412 - Stage 1 - - - 641 - Stage 2 - - 641 - -							
Conflicting Flow All 189 0 - 0 637 185 Stage 1 - - - 185 - Stage 2 - - - 452 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Critical Hdwy Stg 2 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 1 - - 847 - - Stage 2 - - - 641 - Platoon blocked, % - - - 412 857 Alov Cap-1 Maneuver 1385 - - 412 - Stage 1 - - - 791 - Stage 2 - - - 641 -	Major/Minor	Major1		Major2		Minor2	
Stage 1 - - - 185 - Stage 2 - - 452 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - 5.42 - Critical Hdwy Stg 2 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 2 - - - 847 - Stage 2 - - - 641 - Platoon blocked, % - - 412 857 Avor Cap-1 Maneuver 1385 - - 412 857 Avor Cap-2 Maneuver - - 412 - 548 - Valor Cap-2 Maneuver - - - 641 - Stage 1 - - - 641 - Stage 2 - - 641 - Ver Mc Control Delay, s							185
Stage 2 - - - 452 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 641 - Stage 2 - - - 412 857 Avor Cap-2 Maneuver - - - 412 - Stage 1 - - - 641 - Stage 2 - - - 641 - Approach EB WB SB -				-			
Dritical Howy 4.12 - - 6.42 6.22 Dritical Howy Stg 1 - - 5.42 - Critical Howy Stg 2 - - - 5.42 - Critical Howy Stg 2 - - - 5.42 - Critical Howy Stg 2 - - - 5.42 - Collow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 1 - - - 641 - Platoon blocked, % - - - 412 857 Avor Cap-1 Maneuver 1385 - - 412 857 Avor Cap-2 Maneuver - - - 412 - Stage 1 - - - 641 - Stage 2 - - - 641 - Approach EB WB SB - - 70 ACM Control Delay, s 1.6 0		-	-		-		-
Critical Hdwy Stg 1 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 1 - - - 847 - Stage 2 - - - 641 - Platoon blocked, % - - - 412 857 Avor Cap-1 Maneuver 1385 - - 412 857 Avor Cap-2 Maneuver - - - 412 - Stage 1 - - - 641 - Stage 2 - - - 641 - Approach EB WB SB - - 641 - Approach EB WB SB - - - 701 - ACM LOS B - - - 770 - -		4 12	-	-	-		6 22
Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 1 - - 847 - Stage 2 - - 641 - Platoon blocked, % - - 641 - Platoon blocked, % - - 412 857 Mov Cap-1 Maneuver 1385 - - 412 857 Mov Cap-2 Maneuver - - - 412 - Stage 1 - - - 641 - Stage 2 - - - 641 - Approach EB WB SB - - 641 - Approach EB WB SB - - 641 - - Approach EB WB SB - - - 70 ICM LOS B -			-				
Follow-up Hdwy 2.218 - - 3.518 3.318 Pot Cap-1 Maneuver 1385 - - 441 857 Stage 1 - - 847 - Stage 2 - - 641 - Platoon blocked, % - - 641 - Platoon blocked, % - - 412 857 Mov Cap-1 Maneuver 1385 - - 412 857 Mov Cap-2 Maneuver - - - 412 - Stage 1 - - - 641 - Stage 2 - - - 641 - Approach EB WB SB - ICM Control Delay, s 1.6 0 10.2 - ICM LOS B - - 770 - ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Pot Cap-1 Maneuver 1385 - - 441 857 Stage 1 - - - 847 - Stage 2 - - - 641 - Platoon blocked, % - - - 641 - Avor Cap-1 Maneuver 1385 - - 412 857 Avor Cap-2 Maneuver - - - 412 - Stage 1 - - - 791 - Stage 2 - - - 641 - Stage 1 - - - 641 - Stage 2 - - - 641 - Approach EB WB SB - - 641 - Approach EB WB SB - - 641 - Approach EB WB SB - - 70 ICM LOS B </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Stage 1 - - - 847 - Stage 2 - - - 641 - Platoon blocked, % - - 641 - Nov Cap-1 Maneuver 1385 - - 412 857 Nov Cap-2 Maneuver - - - 412 - Stage 1 - - - 791 - Stage 2 - - - 641 - Approach EB WB SB - - 641 - Approach EB WB SB - - 641 - - ACM Control Delay, s 1.6 0 10.2 - - - 770 ACM LOS B - - - - 770 - - - 770 Alior Lane/Major Mvmt EBL EBT WBT WBR SBL11 - - - 770 AlcM Lane V/C Ratio 0.055 - - - 0.107				-			
Stage 2 - - - 641 - Platoon blocked, % - - - - - Mov Cap-1 Maneuver 1385 - - 412 857 Mov Cap-2 Maneuver - - - 412 - Stage 1 - - - 791 - Stage 2 - - - 641 - Approach EB WB SB - 4CM Control Delay, s 1.6 0 10.2 - 4CM LOS B - - 770 - Approach EBL EBT WBT WBR SBL 4CM LOS B - - 770 4CM LAne V/C Ratio 0.055 - - 0.107 4CM Control Delay (s) 7.8 0 - 10.2 4CM Lane LOS A A - B			-				
Platoon blocked, % - - - Mov Cap-1 Maneuver 1385 - - 412 857 Mov Cap-2 Maneuver - - 412 - 5tage 1 - - 412 - Stage 1 - - - 791 - - 641 - Approach EB WB SB - - 641 - Approach EB WB SB - - 641 - AfCM Control Delay, s 1.6 0 10.2 - - - 770 AfCM LOS B - - - 770 - - 770 Aford Lane //Major Mvmt EBL EBT WBT WBR SBL11 - - 770 Aford Lane V/C Ratio 0.055 - - - 770 - - 0.107 ICM Control Delay (s) 7.8 0 - - 10.2 - 10.2 ICM Lane LOS A A - <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
Mov Cap-1 Maneuver 1385 - - 412 857 Mov Cap-2 Maneuver - - 412 - Stage 1 - - 791 - Stage 2 - - 641 - Approach EB WB SB - ICM Control Delay, s 1.6 0 10.2 - ICM LOS B - - 770 Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2				_		071	
Mov Cap-2 Maneuver - - - 412 - Stage 1 - - 791 - Stage 2 - - 641 - Approach EB WB SB - ICM Control Delay, s 1.6 0 10.2 - ICM LOS B - - 770 Approach EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2		1395				112	857
Stage 1 - - - 791 - Stage 2 - - - 641 - Approach EB WB SB - ICM Control Delay, s 1.6 0 10.2 ICM LOS B - - 770 Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2 ICM Lane LOS A A - B			_				
Stage 2 - - - 641 - Approach EB WB SB - - 641 - ICM Control Delay, s 1.6 0 10.2 - - - 7 - - - - - - - - - - - - - - - - - - - 770 - - 10.107 - 10.2 - - 0.107 - - 0.107 - - 0.107 - - 0.107 - - 0.107 - - 10.2 - - 10.2 - - 10.2 - - 10.2 - - - - B - - - B - - B - - - - - - - - - - - - - - <th< td=""><td></td><td>-</td><td>-</td><td>-</td><td></td><td></td><td>-</td></th<>		-	-	-			-
Approach EB WB SB ICM Control Delay, s 1.6 0 10.2 ICM LOS B B Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2 ICM Lane LOS A A - B		-	-	-			-
Incomposition Image: Constraint of the system Image: Constrainted of the system Image: Consystem	Stage 2	-	-	-	-	641	-
International Control Delay, s 1.6 0 10.2 ICM LOS B International Control Delay, s Internatingeneratingenequark International Control Delay,							
HCM LOS B Alinor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2 ICM Lane LOS A A - B	Approach	EB		WB		SB	
HCM LOS B Alinor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2 ICM Lane LOS A A - B	HCM Control Delay. s	1.6		0		10.2	
Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2 ICM Lane LOS A A - B	HCM LOS						
Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2 ICM Lane LOS A A - B						_	
Capacity (veh/h) 1385 - - 770 ICM Lane V/C Ratio 0.055 - - 0.107 ICM Control Delay (s) 7.8 0 - 10.2 ICM Lane LOS A A - B	Miner Leve (Meier M)		EDI	EDT			001-4
HCM Lane V/C Ratio 0.055 - - 0.107 HCM Control Delay (s) 7.8 0 - 10.2 HCM Lane LOS A A - B							
HCM Control Delay (s) 7.8 0 - 10.2 HCM Lane LOS A A - B	Capacity (veh/h)						
HCM Lane LOS A A B							
ICM 95th %tile Q(veh) 0.2 0.4					-	-	
	HCM 95th %tile Q(veh)		0.2	-	-	-	0.4

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	LDL			TIBIL	Y	OBIC
Traffic Vol, veh/h	40	4 55	1 55	10	15	40
Future Vol, veh/h	44	59	59	10	15	44
Conflicting Peds, #/hr	44	0	0	0	0	44
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	- Si0p	None
Storage Length	-	None	-	None	- 0	inorie
Veh in Median Storage, #	-	-	- 0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	64	64	11	16	48
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0		0	230	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	160	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	4.12			-	0.42 5.42	0.22
		-	-			
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1524	-	-	-	758	993
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	869	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1524	-	-	-	733	993
Mov Cap-2 Maneuver	-	-	-	-	733	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	869	-
ciago _						
	50				0.0	
Approach	EB		WB		SB	
HCM Control Delay, s	3.2		0		9.3	
HCM LOS					Α	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1524	-	-	-	911
HCM Lane V/C Ratio		0.031			-	0.07
		0.031 7.4	- 0	-		9.3
HCM Control Delay (s)					-	
HCM Lane LOS		A	А	-	-	A
HCM 95th %tile Q(veh)		0.1	-	-	-	0.2