

TRAFFIC IMPACT STUDY

YACHT CLUB AT SUMMER'S END

Coral Bay, St. John, USVI

January 23, 2013

TRAFFIC IMPACT STUDY

YACHT CLUB AT SUMMER'S END

Route 107

Coral Bay, St. John, USVI

Prepared by:

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January 23, 2013

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INTRODUCTION

Horner & Canter Associates has prepared this Traffic Impact Study for the proposed development of Yacht Club at Summer's End located along Route 107 in Coral Bay, St. John, USVI. The applicant is The Summer's End Group, LLC. The proposed development will consist of a mix of retail, restaurant, office, residential and marina uses to be located along Route 107 in proximity to Estate Road.

For the purpose of this study, the ultimate build-out year for the proposed development is assumed to be 10 years, or 2023. This has been used as the future horizon year for this traffic study.

The purpose of this Traffic Impact Study is to determine the traffic impact the proposed development will have on the surrounding roadway network and the determination of roadway improvements that may be necessary to accommodate this project. This study includes the following scope:

- Acquisition of Manual Turning Movement (MTM) counts during a representative Friday
 (6:00 10:00 AM and 4:00 7:00 PM) and Saturday (8:00 10:00 AM and 4:00 7:00 PM) at the following intersections which constitute the study area:
 - Route 10/Route 107
 - Route 107/Estate Road
- Projection of site-generated traffic volumes and distribution of this traffic to the study area roadway network.
- Establishment of future traffic volumes for the study horizon year (2023).
- Analysis of future traffic conditions in 2023 at the study area intersections.
- Formulation of conclusions with regard to the traffic impact of the proposed development.

EXISTING CONDITIONS

The site is served primarily by Route 107. Route 107 is a two-lane roadway extending in a general north/south direction from its intersection with Route 10 to beyond the area proposed for development. Route 107 provides a variable cartway width of between 18 and 21 feet within a 30-feet right-of-way.

One of the key intersections in the area is Route 10 and Route 107. This intersection is configured as a "T-intersection, with stop-sign traffic control provided on the Route 107 approach to the intersection. Also included in the study is the local intersection of Route 107/Estate Road. This intersection is proposed to be reconfigured in conjunction with the proposed development, with Estate Road serving as a primary access for the development to connect to Route 107.

Existing Traffic Volumes

Since the peak hour traffic conditions reflect the critical periods for evaluation of operating conditions and traffic impact, existing traffic volumes were acquired at the two noted study area intersections through the conduct of Manual Turning Movement (MTM) counts. Counts were conducted on Friday, January 11, 2013 during the morning (6:00 AM - 10:00 AM) and afternoon (4:00 PM - 7:00 PM) peak periods. Counts were also conducted on Saturday, January 12, 2013 during the morning (8:00 - 10:00 AM) and afternoon (4:00 - 7:00 PM) peak periods. These count periods were selected to capture the peak hours and peak day of the week for both the existing traffic and for the projected traffic to be generated by the proposed development. The peak hour traffic count data is provided in the Appendix on pages A-1 through A-8.

The resultant existing peak hour traffic volumes are presented in Figures 1 and 2 for the Friday and Saturday peak periods, respectively.

SITE TRAFFIC

The determination of the amount of site traffic that a proposed development will generate can best be made by comparison with similar sites. The Institute of Transportation Engineers (ITE) has compiled hundreds of trip generation studies and published the results in Trip Generation, 8th Edition¹, which is the national standard used for estimating site traffic generation rates for a variety of land uses.

For the proposed Yacht Club at Summer's End, which contains a mix of land uses, several different ITE Land Use Codes were used for the various components of the development. The resultant trip generation is presented below in Table 1.

	Table 1 Peak Hour Site Trips										
	W	eekday	AM	W	eekday	PM		Saturda	У		
	In	in Out Total			Out	Total	In	Out	Total		
Retail (13,339 s.f.)	29	18	47	81	84	165	120	111	231		
Restaurant (232 seats)	57	52	109	87	80	167	65	58	123		
Office (3,720 s.f.)	11	2	13	2	11	13	2	1	3		
Apartments (10 D.U.)	2	7	9	15	8	23	12	11	23		
Marina (148 berths)	4	8	12	16	15	31	16	22	40		
Internalization (20%) -21 -17 -38 -40 -40 -80 -43 -41							-41	-84			
Total	82	70	152	161	158	319	174	162	336		

It should be noted that Table 1 reflects a 20% internalization factor. For mixed-use developments there is a trip-sharing that occurs between use destinations within the development. For example, a patron of the retail component may also be a patron of the restaurant component, which serves to reduce the number of external trips than would ordinarily be generated by separate stand-alone parcels. The 20% estimation for internalization is derived by applying ITE's methodologies for mixed-use developments. For this project it is considered to be a conservatively low estimate of trip-sharing.

¹ Trip Generation, 8th Edition; Institute of Transportation Engineers, Washington, D.C.: 2008

In Table 1 only one peak hour is shown for the Saturday. This is due to the fact that the ITE data only provides a "peak hour of the generator" for Saturday as opposed to distinct AM and PM data. For the purpose of this report, we assumed the peak hour of the generator (the subject site) will occur during both Saturday periods.

The site-generated traffic from Table 1 was distributed to the study area roadway network in a manner consistent with the anticipated origins and destinations to/from the development and in part on existing traffic patterns. The distribution percentages by direction are presented below:

Route 10

to/from the west 70% to/from the east 10%

Route 107

to/from the south 20%

The distributed site trips are presented in Figures 3 and 4 for the Friday and Saturday peak periods, respectively.

FUTURE TRAFFIC CONDITIONS

To assess the impact of the site-generated traffic volumes on the study area roadway network, the future traffic volumes in the anticipated build-out year of the site (2023) were determined. To determine the level of background, or non-development, traffic growth that would be expected to occur in the intervening ten-year period we reviewed U.S. Census Bureau data. This data revealed that the recent trends are a slight decrease in population on St. John. To be conservative with our future traffic estimates we assumed a background traffic growth rate of one percent per year (10% total). This was applied to the existing traffic volumes to yield 2023 base traffic volumes without the development.

The total Build 2023 traffic volumes, which consist of the existing traffic volumes factored upward to account for background traffic growth and the site-generated traffic volumes distributed to the study area intersections, are presented in Figures 5 and 6 for the Friday and Saturday study peak periods, respectively.

Levels of Service

In order to determine the ability of the adjoining streets and intersections to accommodate the development-generated traffic, the Level of Service of these facilities is computed using the FHWA-accepted standards as put forth by the Transportation Research Board (TRB) in the Highway Capacity Manual (HCM 2010). Level of Service (LOS) is a measure of the quality of the traffic flow and generally is expressed as follows:

- Level of Service A Excellent Free flow
 - B Very Good Minor adjustments in traffic flows
 - C Good Stable flow of traffic
 - D Satisfactory flow Occasional short periods with minor delays
 - E CAPACITY FLOW- Regular delays
 - F Forced Flow Significant delays and queuing

At unsignalized (stop-sign controlled) intersections, Level of Service is based on the average delay to controlled and yielding movements, such as exiting movements from a stop sign or the left-turn from a through street into a side street. The delay thresholds for various Levels of Service are located in the Appendix on page A-9.

Assessment

An assessment of the future 2023 operating conditions within the study area was completed. The assessment included a Level of Service (LOS) analysis of the study area intersections in order to determine if the projected traffic volumes can be acceptably accommodated within the study area and what improvements may be required to mitigate the site's traffic impact, if any. The future 2023 LOS results are presented in Figures 7 and 8 for the Friday and Saturday periods, respectively. The detailed capacity analysis worksheets are contained in the Appendix on pages A-10 through A-33.

As shown in Figures 7 and 8, the study area intersections will operate at very good to excellent Level of Service (LOS) after full build-out of the project. The intersection of Route 10/Route 107 will operate at highly acceptable LOS A or B during all four study peak periods. There are no improvements required to address the development traffic impact at this intersection.

The proposed site access driveways (including relocated Estate Road) intersecting Route 107 will operate at highly acceptable LOS A during all four study peak periods.

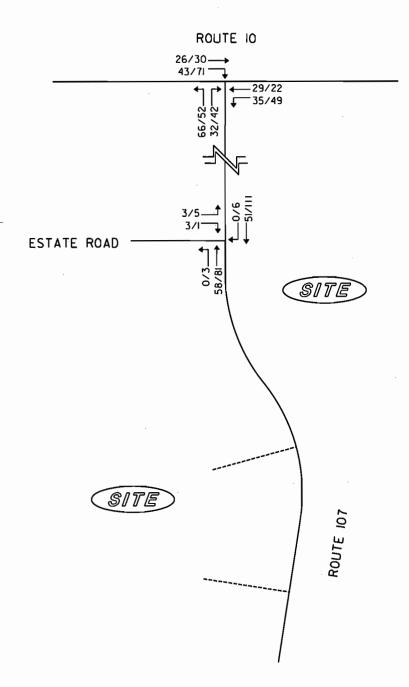
Given the post-development traffic levels, it is recommended that a minimum 20-feet-wide cartway be maintained on Route 107 within the project limits. There are no auxiliary turn lanes required along Route 107 to accommodate the future traffic.

CONCLUSIONS

The conduct of this Traffic Impact Study for the proposed Yacht Club at Summer's End in Coral Bay, St. John, USVI, has led to the following conclusions and recommendations:

- The development will generate approximately 152 trips in the Friday AM peak hour,
 319 trips in the Friday PM peak hour, and 336 in the Saturday peak hours.
- Access will be provided via three unsignalized driveways to Route 107 (including relocated Estate Road). The access driveways will operate at highly acceptable LOS A during the peak Friday and Saturday periods in the 2023 future build-out horizon.
- The off-site intersection of Route 10/Route 107 will operate at very good LOS A/B for the stop-controlled approach of Route 107. There are no improvements at this intersection necessary to accommodate the increase in traffic attributable to this development.
- 4. The traffic generated by the proposed development can be integrated into the adjacent roadway network without significant negative traffic impact. It is recommended that a minimum 20-feet-wide cartway be maintained on Route 107 within the project limits. There are not auxiliary turn lanes required along Route 107 to accommodate the future traffic.





LEGEND:

- AM/PM PEAK HOURS

FIGURE 1 EXISTING FRIDAY PEAK HOUR TRAFFIC VOLUMES

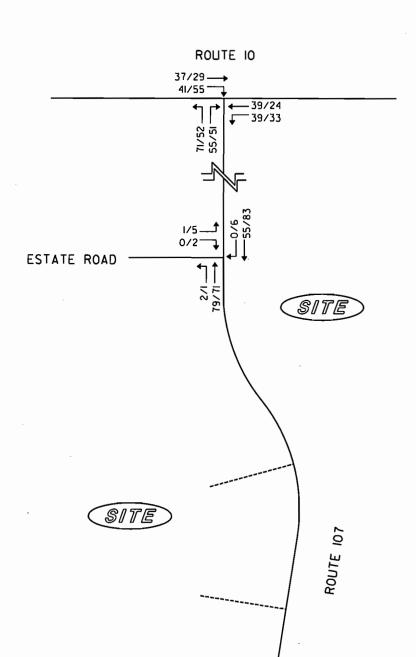
YACHT CLUB AT SUMMER'S END

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TRANSPORTATION AND TRAFFIC ENGINEERING





LEGEND:

← AM/PM PEAK HOURS

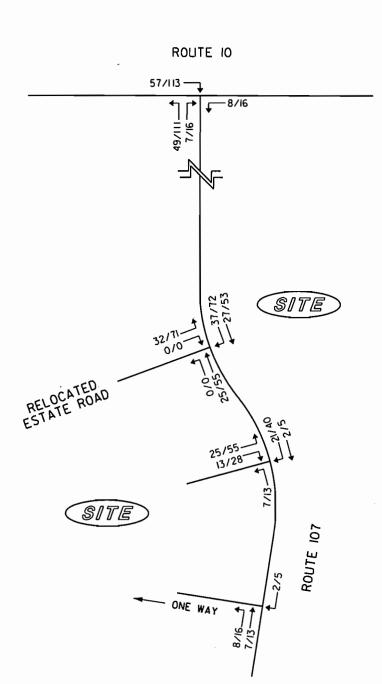
FIGURE 2 EXISTING SATURDAY PEAK HOUR TRAFFIC VOLUMES

13-001 JANUARY 2013 YACHT CLUB AT SUMMER'S END

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LEGEND:

- AM/PM PEAK HOURS

FIGURE 3 SITE TRIPS: FRIDAY PEAK HOURS

YACHT CLUB AT SUMMER'S END

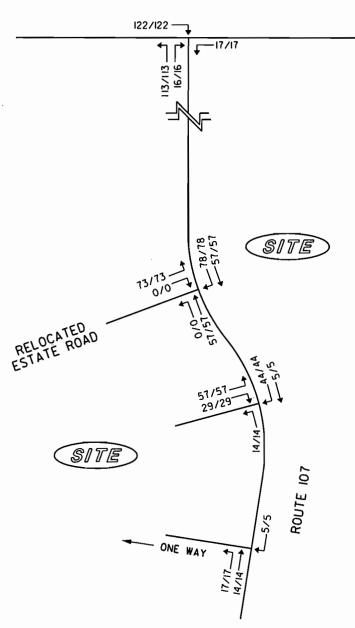
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LEGEND:

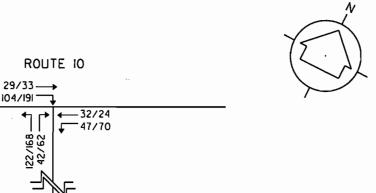
AM/PM PEAK HOURS

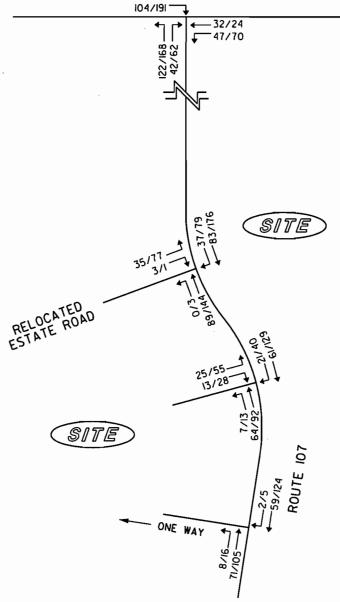
FIGURE 4 SITE TRIPS: SATURDAY PEAK HOURS

YACHT CLUB AT SUMMER'S END

CORAL BAY, ST. JOHN, USVI

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LEGEND:

AM/PM PEAK HOURS

FIGURE 5 FUTURE 2023 FRIDAY PEAK HOUR TRAFFIC VOLUMES

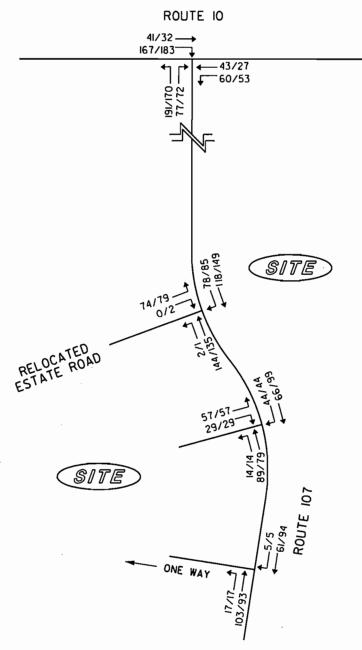
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LEGEND:

→ AM/PM PEAK HOURS

FUTURE 2023 SATURDAY
PEAK HOUR TRAFFIC VOLUMES

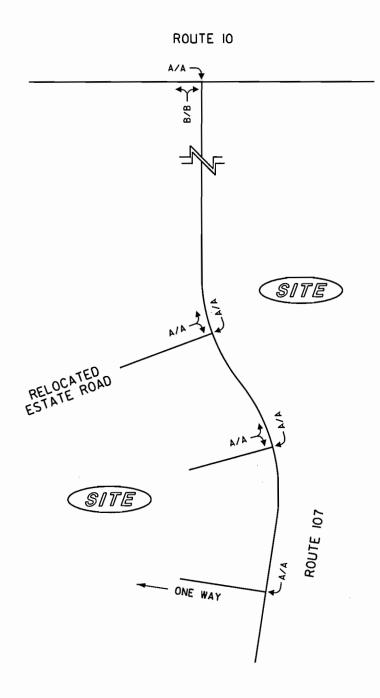
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LEGEND:

AM/PM PEAK HOURS

FIGURE 7 FUTURE 2023 LEVELS OF SERVICE: FRIDAY PEAK HOURS

YACHT CLUB AT SUMMER'S END

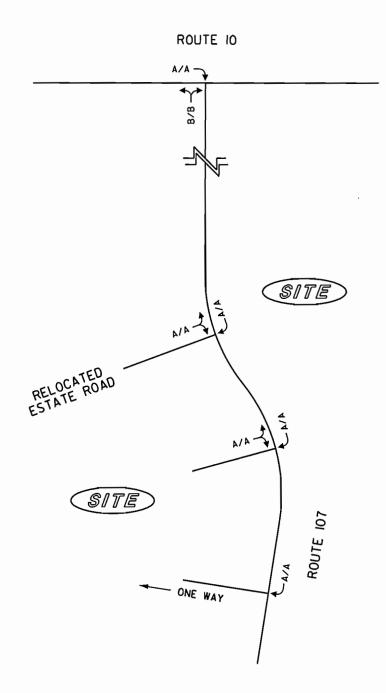
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LEGEND:

← AM/PM PEAK HOURS

FIGURE 8 FUTURE 2023 LEVELS OF SERVICE: FRIDAY PEAK HOURS

YACHT CLUB AT SUMMER'S END

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APPENDIX

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Cora	al Bay, U.S. Virgin I	slande			A>		1
	Rt.10/Rt.107	Intersection Diag	ram:		#7	€-C	<u>R+</u> .10
		(المرابعة	Shipweet	Cruz	Cruzball.		
	Friday	N.10 EA	STROUND		Shynned ESTBOUND	Strong lea	RTHBOUND
	January 11, 2013	A-Thru	B. Right Turn	C- Thru	D- Left Turn	E-Right Turn	F- Left Turn
12	6:00-6:15 AM	. 0	111 4	0	1 1	· l	Hri ₆
17	6:15-6:30 AM	i ,	111 3	0	1 1	1 /	1 "
22	6:30-6:45 AM	111 3	il) 3	11 2	11114	11(1)	411,°
19	6:45-7:00 AM	1	1111	1111	1 1	1 t	8
30	7:00-7:15 AM	111 3	111,3	11 2	HH 5	11111	11 12
44	7:15-7:30 AM	Hit 6	H+111 7	4111	4411	14T1111	10
50	7:30-7:45 AM	111 3	1117	311	14111	144111	11444+ 141141141
૫૭	7:45-8:00 AM	itts	Lity 111	14411	1111 4	MAIII	14-14-14
41	8:00-8:15 AM	1441 6	1111 4	ur"(1	ittii	1441	1111111
42	8:16·8:30 AM	HY 5	ألملل	HF 5	9	1441 6	44
65	8:30-8:45 AM	HITH 10	12 12	1111	THT HILII	HAIII	HT1111 19
34	8:45-9:00 AM	1	11 2	11114) /I	WI5	1111 19
731	9:00-9:15 AM	H11 5	HHT1111	HTi	iHI	HTIM ((WH LH
53	9:15-9:30 AM	IHIII	IMPIIII	MIII 9	IHY 5-	UT?	1411111 1411 /4
60	9:30-9:45 AM	WH 5	HATIN	H416	1111 14	MIII	HHIHI 9
69	9:45-10:00 AM	141111 8	WY H111	1411) 8	16	HTII 7	HT 20

PEAK HOUR 9:00 AM - 10:00 AM

1/11/13 - FRI Errin

R+.107

Rt.10/Rt.107 Intersection Diagram:

:	_		Skinnylog	shipweel	Cruz	Shirweek	Stimpley	CourBa
		Friday January11,2013	A- Thru	STBOUND B- Right Turn	Rt. 10 WE	STBOUND D- Left Turn	Rt.107 NO	RTHBOUND F- Left Turn
	5%	4:00-4:15 PM	Ш+ 5	14144	HTT 6	3	HK[1]	HTHTHT HT 11/12Y
	62	4:15-4:30 PM	Milli 9	4111411 ₁₆	HT 5	JAHTHITII	HILI	12
266	83	4:30-4:45 PM	447111 9	1111 19	HTIIII	111\ 15	HTH	MM 21
	46	4:45-5:00 PM	111 3	MHHIIII	HT 6-	HHIII 8	1441111 9	HTT1
	73	5:00-5:15 PM	HILI	HITHHIT 22	HH117	10	14 LM	13
73	64	6:16-6:30 PM	11th 7	HANKET HAT	١ ,	HT1 16	11 13	14
	62	6:30-6:45 PM	HTII]	14111123	14till 9	HII	IIII ₄	12 /2
	47	6:45-8:00 PM	Will 8	1416	1 ,	H111111	WH1 6	HTHMI "
	61	6:00-5:15 PM	W(1) 7	4114111 411119	IIII ₄	13 /5	WH1 6	16
	57	6:15-6:30 PM	11114	11 12	HT5	भागा	1711411 111 13	HH 15
	50	6:30-6:45 PM	11 2	144411	1111	447	111111	HHT1H11
	60	6:45-7:00 PM	4+14+ 10	WHHT 17	3	HM HAT 11	11 12	il) 3

PEAK HOUR 4:30 PM - 5:30 PM

Rt.10/Rt.107

Intersection Diagram:

		Saturday	Rt.10 EA	STBOUND	Rt. 10 WE	STBOUND	Rt.107 NO	RTHBOUND
	ļ	January12,2013	A- Thru B- Right Turn		C- Thru	D- Left Turn	E- Right Turn	F- Left Turn
	23	8;00-8:15 AM	11 2	W 5	111 3	111 3	¹¹¹ 3	ДН II 7
	26	8:15-8;30 AM	1	H1 5	11 2	11 2	111 3	JU 13
	49	8:30-8:45 AM	Mgll	州州	1.	HI HI	JHT 6	HT HT 14
28 ²	56	8:45-9:00 AM	州州。	HT 116	111 3	HT 5	THI THE	W 11/11
	68	9:00-9:15 AM	HH 1118	IM Ilia	HT HT	洲圳川	HTHI 18	州州
	67	9:15-9:30 AM	圳门)州川 _フ	州识	11 12	斯 出 第1112	#1 #1 21 #1 W/I
	70	9:30-9:46 AM	MIR	批州	Will	UK IIII	THE 191	141 111 111 23
	77	9:45-10:00 AM	M 4H 15	11/4/16	HI III	HT []]]	JH JH 13	MH 15

PEAK HOUR 9:00 AM 10:00 AM

Rt.10/Rt.107 Intersection Diagram:

:	1	Saturday	Rt.10 EA	ASTBOUND	Rt. 10 WE	STBOUND	Rt.107 NO	RTHBOUND
2	34	January12,2013	A- Thru	B- Right Turn	C- Thru	D- Left Turn	E-Right Turn	F- Left Turn
L.	57	4:00-4:15 PM	WITH	HH 15	1111 4	16 14 M	MH 5-	111 13 M HT
	48	4:16-4:30 PM	JH1 16	M III	HH IIII	HHI	HI 1111	WITH WITH
	67	4:30-4:45 PM	1111 y	11 15 HH HH	111 13 IM IM	开开,	I "III	11 15 JH JH
	62	4:45-5:00 PM	MII	III 13 HH HH	H11 6	M M 111 13	HT ()1	LH 12 LH LH
	57	6:00-5:15 PM	M 111	HH IIII 9	IM II	MIM M	W H1	111 13
244	51	5:15-5:30 PM	M II	11 15 LH LHT	M III	HH 11	THI THI	LH II
24	51	5:30-5:45 PM	THU 5	11 12	HH!	11114	M 15-	M III
\\	68	5:45-6:00 PM	MIT	HI 13	THU 5-	H TH	M 18_	H 11/8
	74	5:00-5:15 PM	HITH HITH	HT III	HT 2	11 12	1 " 1 "	HH 111/8
	50	6:15-6:30 PM	M119	44,61 441,441	LH1 S	M III	THT INI	HU 5-
	34	6:30-6:45 PM	3	11 12	11 2	TH 5-	HH []]]	Ш з
	40	6:45-7:00 PM	111 3	MI	11 2	HH 111	1 1 1 1	111 13

PEAK HOUR 5:15 PM 6:15 PM

Estate Road/Rt.107

Intersection Diagram:

ESTATE	F T	4 1
RUMO	11 T	RT. 107

				and the second s					
		Friday	Rt.107 SO	UTHBOUND	Rt. 107 NO	RTHBOUND	Estat	e Road	T Schwol Bu
		January11,2013		B-Right Turn			E- Right Turn	F- Left Turn	VITOE
	10	6:00-6:15 AM	1 1	O	La in 8	0	0	1	VI Tran School Bus VI Tran School Bus
	11	6:15-6:30 AM	I 1	6	HH.HH	O	0	٥	Delivery School Bus
4	ł t	6:30-6:45 AM	iil 3	1	III 4	l	0	11 2	Septe Trues Pelivery
:	12	6:45-7:00 AM	111 3	0	41117	0	1 /	1	
	19	7:00-7:15 AM	III 3	0	##T.HT	U	U	0	
	28	7:16-7:30 AM	M.M.II	O	HI HI	6	0	1	60~!
106	34	7:30-7:45 AM	州州	0	W 1 16	1	O	M 5	Police
	24		in 1118	0	加 ¹³	O	O	JII 3	
	21	8:00-8:15 AM	HT JHT	O	भा भा	O	O	6	
115	27	8:15-8:30 AM	141 HI 11	6	141.H1 141 15	6	O	0	
13	33	8:30-8:45 AM	州州	0	141 141 ₁₅	Ó	6	2 ۱۱	
	33	8:45-9:00 AM	Hi ing	0	W un	0	3	1 ,	
	22	9:00-9:15 AM	14 HI 14 14	0	iht ili	0	6	6	
	25	9:15-9:30 AM	W W 13	6	11 15 TH THL	0	0	6	
	21		JH 12	0	W1 141 15	0	O	1	
	33	9:46-10:00 AM	W(1)	O	州山	O	\ /	0	

PEAK HOUR 8:85 AM - 9:85 AM

Yacht Club at Summer's End Coral Bay, U.S. Virgin Islands

1/11/13 Enid

Triangle

Estate Rd./Rt.107

Intersection Diagram:

1) Motorcycu

		Friday	Rt.107 SOL	THBOUND		RTHBOUND	Estate Road		
		January11,2018	A- Thru	B-Right Turn	C- Thru	D- Left Turn	E- Right Turn	F- Left Turn	
	38	4:00-4:15 PM	14	H11 4	14 11 18 14 144	0	O	Z 11	
	37	4:15-4:30 PM	111 10 UH UH HH	O	111 10 144441441	0	6	1.	
, fo	42	4:30-4:45 PM	1111 19 HT HK HT	1	141 22 . 1411411411	O	0	0	
206	50	4:45-5:00 PM	447.444.444 444.444.444	7. 11.	111 18 HHIAHTHH	. 0	0	0	
	56.	5:00-5:15 PM	HTHE H	11 2	HT 111 23 HT HT IHT	ı	O	112	
	רץ	5:15-6:30 PM	44441 ₂₅ 44744444	1	1111 19 14114174117	1	6	₁₁ Z	
	53	5:30-5:45 PM			HTUH 2, 0	1	1	j	
	32	5:45-6:00 PM	1 16	,	HTIH!	6	1 ,	11 2	
187	32	5:00-6:15 PM	juit 1417444 19 1111) 1	HH 1111	0	0	lii 3	
	56	6:15-6:30 PM	HT HT 21	1 1	HHHHHH MHHHH	32 b	0	11 2 "	
	ર્ફ્ટ	6:30-6:45 PM	111 18 111 18	1	HHHH	6	0	11 2	
	·3-C*	34 6:45-7:00 PM	HT LLHUMI	111 3	4111118 4111111111111111111111111111111	O	1 ,	0	

D-1 4:00 PEAK HOUR 4:45 PM - 5:45 PM

Estate Rd/Rt.107

Intersection Diagram:

		Saturday		THBOUND		RTHBOUND		Road
		January12,2013	A- Thru	B. Right Turn	C- Thru	D- Left Turn	E- Right Turn	F- Left Turn
	24	8:00-8:15 AM	JK III	1 (10 HH HH	1 1	0	3
	18	8:16-8:30 AM	7 11 14	0	10 141 HH	0	0	1 1
	24	8:30-8:45 AM	111111111111111111111111111111111111111	6	111 14 HH HH	. 6	٥	1. (
137	31	8:45-9:00 AM	在书	111 3	HH 1HH	0	0	11 2
(5	35	9:00-9:15 AM	111 12 14 141	6	mm; mm!	0	6	0
	30	9:16-9:30 AM	1 12	0	HT 111 HT 1H1 18	0	٥	0
	34	9:30-9:45 AM	H1 16	0	M 11 12	1	0	O
	38	9:45-10:00 AM	JHJ HH	0	mm; 1) (0) (

PEAK HOUR 9:00 AM - 10:00

ESTATE E- PA

Estate Rd./Rt.107

Intersection Diagram:

	Ī	Saturday		THTBOUND		RTHBOUND		Road
,, (4		January12,2013	A- Thru	B- Right Turn	C- Thru	D- Left Turn	E- Right Turn	F- Left Turn
168	45	4:00-4:16 PM	12 14W	1111 4	HH HH 19	0	O	\
	42	4:15-4:30 PM	HH HH 21	1 ,	HH III HH HH	0	11 2	6
<u>.</u> •	43	4:30-4:45 PM	M 11 18 M1 HM	1 ,	H1111111111111111111111111111111111111	l	0	(III 4
	38	4:46-5:00 PM	W W 23	U	M1 12 M1 MT	O	0	0
168	38	6:00-5:15 PM	HT HT!	1111	HU 1111/18	1 ,	11 2	11 2
	24	5:15-5:30 PM		11 2	M HM	\ ₁	[,	1
164	37	5:30-8:46 PM	M 1 20	0	五五五五	0	1 ,	11 2
1	55	5:45-6:00 PM	HIM 21	1 1	MMHI MHH	0	0	11 2
	35	5:00-5:16 PM	HT 12-	0	HH HH 141	0	0	1 ,
	37	6:15-6:30 PM	47 44 55 44 44 11	JII 3	OIMI THI	0	0	z
	23	6:30-6:45 PM	9 HH 1111	11 2	mm,	11 2	0	٥
	38	6:45-7:00 PM	まれ、	0	M 11 M M 12	0	0	1111 4

PEAK Hr. 4:00 PM - 5:00 PM

Level of Service Criteria

Level of Service at intersections is defined in terms of DELAY. Delay is a measure of driver discomfort, frustration, and lost travel time, thus the rating of delay from highly acceptable LOS A to unacceptable LOS F.

At traffic signals, delay is a complex measure and is dependent on a number of variables including signal progression, the cycle length, the green-time ratio, clearance times, trucks, pedestrians, parking, and signal phasing.

At unsignalized intersections, delay is dependent on the available gaps in the two-way flow of the uninterrupted traffic movement, intersection width, and queuing.

Intersection LOS

	Signalized	<u>Unsignalized</u>
LOS A	Less than 10.0 sec/veh	Less than 10.0 sec/veh
В	10.0 to 20.0 sec/veh	10.0 to 15.0 sec/veh
C	20.0 to 35.0 sec/veh	15.0 to 25.0 sec/veh
Ð	35.0 to 55.0 sec/veh	25.0 to 35.0 sec/veh
${f E}$	55.0 to 80.0 sec/veh	35.0 to 50.0 sec/veh
F	Greater than 80.0 sec/yeh	Greater than 50.0 sec/veh

0 11 6 41			1014	_	4.				
General Information				nforma	ation				
Analyst	DHH		Interse			Route 10/Route 107			
Agency/Co.	Horner & Canter Associates		_	Jurisdiction			St. John, USVI		
Date Performed	1/21/13	4.D1.	Analys	Analysis Year			Existing		
Analysis Time Period	Friday AM								
		b at Summer's En		\4l- O4		407			
East/West Street: Route			_	North/South Street: Route 107 Study Period (hrs): 0.25					
ntersection Orientation:			Study	erioa (r	1rs): 0.25				
Vehicle Volumes ar	nd Adjustme								
Major Street		Eastbound			4	Westbou	nd I		
Movement	1 1		3		4	5 T		6	
/olume (veh/h)		29	35		43	26		R	
Peak-Hour Factor, PHF	1.00	0.84	0.84		0.84	0.84		1.00	
Hourly Flow Rate, HFR									
veh/h)	0	34	41		51	30		0	
Percent Heavy Vehicles	0				0				
Median Type				Undivi	ded				
RT Channelized			0					0	
_anes	0	1	0		0	1		0	
Configuration			TR		LT				
Jpstream Signal		0				0	0		
Minor Street		Northbound				Southbou	Southbound		
Movement	7	8	9		10	11		12	
	L	Т	R		L	T		R	
/olume (veh/h)	32		66						
Peak-Hour Factor, PHF	0.84	1.00	0.84		1.00	1.00		1.00	
Hourly Flow Rate, HFR veh/h)	38	0	78		0	0		0	
Percent Heavy Vehicles	0	0	0		0	0		0	
Percent Grade (%)		0				0			
Flared Approach		N				N			
Storage		0				0			
RT Channelized			0		_			0	
_anes	0	- 0	0		0	0		0	
Configuration		LR							
Delay, Queue Length, a	nd Level of Se	rvice							
Approach	Eastbound	Westbound	1	Vorthboo	und	S	outhbour	nd	
Movement	1	4	7	8	9	10	11	12	
ane Configuration	·	LT		LR		1			
(veh/h)		51		116					
(vei///) C(m) (veh/h)		1537		927		1			
/c		0.03		0.13		+		+	
15% queue length		0.03		0.13		+	<u> </u>		
						+		-	
Control Delay (s/veh)		7.4		9.4		+			
.OS		Α		A					
Approach Delay (s/veh)				9.4		4			
Approach LOS				Α					

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	TW	O-WAY STOP	CONTR	OL SU	MMARY					
General Informatio	n		Site I	nforma	ition					
Analyst	DHH		Interse	ection		Route 10	Route 10/Route 107			
Agency/Co.	Horner & Canter Associates					St. John, USVI				
Date Performed	1/21/13		Analys	Analysis Year			Existing			
Analysis Time Period	Friday Pl									
Project Description 13	-001 Yacht Clu	b at Summer's End								
East/West Street: Rout		_	North/South Street: Route 107 Study Period (hrs): 0.25							
ntersection Orientation:			Study F	Period (h	rs): 0.25					
Vehicle Volumes a	<u>nd Adjustme</u>									
Major Street Movement	+ 4	Eastbound		2 4		Westbou	<u>ina</u>	-		
wovement	1 L	2 T	3 R		4	5 T		6 R		
Volume (veh/h)	 	22	49		71	30				
Peak-Hour Factor, PHF	1.00	0.80	0.80		0.80	0.80		1.00		
Hourly Flow Rate, HFR				_						
(veh/h)	0	27	61		88	37		0		
Percent Heavy Vehicles	0				0					
Median Type				Undivid	ded					
RT Channelized			0	\perp				0		
anes	0	1	0		0	1		0		
Configuration			TR		LT					
Jpstream Signal		0				0				
Minor Street		Northbound				Southbound				
Movement	7	8	9		10	11		12		
	L	Т	R		L	Т		R		
/olume (veh/h)	42	1.00	52			 				
Peak-Hour Factor, PHF	0.80	1.00	0.80		1.00	1.00		1.00		
Hourly Flow Rate, HFR veh/h)	52	0	64		0	Ó		0		
Percent Heavy Vehicles	0	0	0		0	0		0 .		
Percent Grade (%)		0				0				
Flared Approach		N				N				
Storage		0				0				
RT Channelized			0	T				0		
anes	0	0	0		0	0		0		
Configuration		LR								
Delay, Queue Length, a	nd Level of Se	rvice								
Approach	Eastbound	Westbound	1	Northbou	ınd	S	outhbour	nd		
Movement	1	4	7	8	9	10	11	12		
ane Configuration		LT		LR						
(veh/h)		88		116						
C (m) (veh/h)		1520		832						
//c		0.06		0.14						
95% queue length		0.18		0.48						
Control Delay (s/veh)		7.5		10.0		+ -				
OS		7.5 A		10.0 B		+		+		
Approach Delay (s/veh)		-		10.0		+				
Approach LOS				В						

1/21/13 Saturday	nts Eastbound 2 T 39	Interse Jurisdi Analys	ction is Year South Str	eet: Route	St. John, Existing	/Route 107 USVI			
Horner & 1/21/13 Saturday 01 Yacht Club 10 East-West I Adjustme 1 L	AM Peak o at Summer's End nts Eastbound 2 T 39	Jurisdi Analys North/S Study F	ction is Year South Str		St. John, Existing				
1/21/13 Saturday 01 Yacht Club 10 East-West 1 Adjustme 1 L	AM Peak o at Summer's End nts Eastbound 2 T 39	North/S Study F	is Year South Str		Existing	USVI			
Saturday 201 Yacht Club 10 East-West 1 Adjustme 1 L 1.00	nts Eastbound 2 T 39	North/S Study F	outh Str						
01 Yacht Club 10 East-West Adjustme 1 L	nts Eastbound 2 T 39	Study F			107				
10 East-West I Adjustme 1 L 1.00	Eastbound 2 T 39	Study F			107				
Adjustme 1 L 1.00	Eastbound 2 T 39	Study F			107				
1 Adjustme	Eastbound 2 T 39	3	Period (hi	rs): 0.25					
1 L	Eastbound 2 T 39								
1.00	2 T 39								
1.00	T 39		l l		Westbou				
1.00	39	R		4	5		6		
				<u>L</u>	T		R		
	1 /1/07	39		41	37		1.00		
0	0.92	0.92		0.92	0.92		1.00		
•	42	42		44	40		0		
0	 			0					
 			Lindivid						
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0		0		0			0		
	0								
	N				N				
	0				0				
		0					0		
0	0	0		0	0		0		
	LR								
d Level of Se	rvice		•						
Eastbound		١	lorthbou	nd	S	outhbound			
					+		12		
•	·	•		+ -	1 10	- ''-			
				 	 	 	\vdash		
						 	 		
									
					<u>'</u>		<u> </u>		
	0.09		0.54						
	7.4		9.7						
	Α		Α						
			9.7						
	0 d Level of Ser Eastbound 1	0 1 Northbound 7 8 L T 555 0.92 1.00 59 0 0 0 N N 0 N 0 LR d Level of Service Eastbound Westbound 1 4 LT 44 1526 0.03 0.09 7.4 A	0 1 0 7R 0 Northbound 7 8 9 L T R 55 71 0.92 1.00 0.92 59 0 77 0 0 0 0 0 0 0 0 0 0 0 0 0 0 LR d Level of Service Eastbound Westbound N 1 4 7 LT 44 1526 0.03 0.09 7.4 A	O	Undivided O	O	O		

0		_	10:4:		4!				
General Information				nforma	ation				
Analyst	DHH		Interse				/Route 10	7	
Agency/Co.		Canter Associates				St. John,	USVI		
Date Performed	1/21/13 Saturday PM Peak			is Year	· · · · · · · · · · · · · · · · · · ·	Existing			
Analysis Time Period									
Project Description 13		b at Summer's End				107			
East/West Street: Route			North/South Street: Route 107 Study Period (hrs): 0.25						
Intersection Orientation:			Study	erioa (r	nrs): 0.25				
Vehicle Volumes ar	<u>nd Adjustme</u>								
Major Street	+	Eastbound				Westbou	und r		
Movement	1 1	2	3	_	4	5 -		6	
\/aluma /uah/h)	L	T 24	R		L	T 20		R	
Volume (veh/h) Peak-Hour Factor, PHF	1.00	0.82	33 0.82		55 0.82	29 0.82		1.00	
Hourly Flow Rate, HFR									
(veh/h)	0	29	40		67	35		0	
Percent Heavy Vehicles	0				0	-			
Median Type				Undivid	ded				
RT Channelized			0					0	
anes	0	1	0		0	1		0	
Configuration			TR			<u> </u>			
Upstream Signal		0				0	-		
Minor Street	 	Northbound		$\overline{}$		Southbo	Southbound		
Movement	7	8	9	_	10	11		12	
WIG V CITICINE	 	T	R	_	L		T		
Volume (veh/h)	51	-	52			+	T R		
Peak-Hour Factor, PHF	0.82	1.00	0.82		1.00	1.00	1.00 1.0		
Hourly Flow Rate, HFR									
(veh/h)	62	0	63		0	0		0	
Percent Heavy Vehicles	0	0	0		0	0		0	
Percent Grade (%)		0				0			
Flared Approach		N				N			
Storage		0				0			
RT Channelized			0			 	\neg	0	
anes	0	0	0		0	0		0	
Configuration	 	LR				 			
Delay, Queue Length, a	nd I evel of Se								
Approach	Eastbound	Westbound		Vorthbou	ınd		Southbound	1	
		4	7	8	9	10	11	12	
Movement	1				9	10	''	1 12	
ane Configuration		LT		LR				-	
/ (veh/h)		67		125		——		↓	
C (m) (veh/h)		1545		861					
//c		0.04		0.15					
95% queue length		0.14		0.51					
Control Delay (s/veh)		7.4		9.9		1			
os		A		A					
Approach Delay (s/veh)				9.9		 			
					_	+			
Approach LOS				Α					

	TW	O-WAY STOP	CONTR	OL SU	MMARY					
General Informatio	n		Site I	nforma	tion					
Analyst	DHH		Interse	ection		Route 10	Route 107/Estate Road			
Agency/Co.	Horner &	Canter Associates	Jurisdi	Jurisdiction			St. John, USVI			
Date Performed	1/21/13	<u> </u>	Analys	Analysis Year			Existing			
Analysis Time Period	Friday Al									
		b at Summer's End	_							
East/West Street: Esta			_		reet: Route	107				
ntersection Orientation:			Study	Period (h	rs): 0.25					
Vehicle Volumes a	<u>nd Adjustme</u>									
Major Street	· ·	Northbound				Southbou	ind i			
Movement	1 1	2 	3 R		4	<u>5</u>		6 R		
Volume (veh/h)	0	51	K	-	L	58		0		
Peak-Hour Factor, PHF	0.87	0.87	0.84	-	1.00	0.87		0.87		
Hourly Flow Rate, HFR										
veh/h)	0	58	0		0	66		0		
Percent Heavy Vehicles	0		-		0					
Median Type				Undivid	ded					
RT Channelized			0					0		
anes	0	1	0		0	1		0		
Configuration	LT_							TR		
Jpstream Signal		0				0				
Minor Street		Eastbound				_	Westbound			
Movement	7	8	9		10	11		12		
	L	Т	R		L	Т		R		
/olume (veh/h)	3		3			_				
Peak-Hour Factor, PHF	0.87	0.84	0.87		0.84	0.84		1.00		
Hourly Flow Rate, HFR veh/h)	3	0	3		0	0		0		
Percent Heavy Vehicles	0	0	0		0	0		0		
Percent Grade (%)		0				0				
Flared Approach		N				N N				
Storage		0				0				
RT Channelized			0					0		
anes	0	0	0		0	0		0		
Configuration		LR								
Delay, Queue Length, a	and Level of Se	rvice								
Approach	Northbound	Southbound		Vestbou	ınd		Eastbound			
Movement	1	4	7	8	9	10	11	12		
ane Configuration	LT						LR			
/ (veh/h)	0						6			
C (m) (veh/h)	1549						935			
r/c	0.00						0.01			
95% queue length	0.00						0.02			
Control Delay (s/veh)	7.3					1	8.9	1		
OS	A					1	A			
Approach Delay (s/veh)							8.9	1		
Approach LOS						+	A			
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	TW	O-WAY STOP	CONTR	OL S	UMN	MARY				
General Informatio	n		Site I	nforn	natio	on .				
Analyst	DHH		Interse	ection			Route 10	7/Estate F	Road	
Agency/Co.	Horner &	Canter Associate	Jurisdi	Jurisdiction			St. John, USVI			
Date Performed	1/21/13		Analys	Analysis Year			Existing			
Analysis Time Period	Friday Pl									
		b at Summer's End								
East/West Street: Esta		<u></u> _				t: Route	<u> </u>		<u> </u>	
Intersection Orientation:			Study	eriod	(hrs)	: 0.25				
Vehicle Volumes a	nd Adjustme									
Major Street		Northbound	3			4	Southbou	ind		
Movement	1 L	2 	R		\vdash	<u>4</u>	5 T	_	6 R	
Volume (veh/h)	6	111	 				81		3	
Peak-Hour Factor, PHF	0.92	0.92	0.84			1.00	0.92		0.92	
Hourly Flow Rate, HFR								_		
(veh/h)	6	120	0			0	88		3	
Percent Heavy Vehicles	0					0				
Median Type				Undi	videa	<u></u>				
RT Channelized			0						0	
Lanes	0	11	0			_ 0	1		0	
Configuration	LT								TR	
Upstream Signal		0					0			
Minor Street		Eastbound					Westbou	nd		
Movement	7	8	9			10	11		12	
	L	Т	R			L	Т		<u>R</u> .	
Volume (veh/h)	1		5	2 2 2 4				1.00		
Peak-Hour Factor, PHF	0.92	0.84	0.92	0.92 0.84		0.84	0.84	_	1.00	
Hourly Flow Rate, HFR (veh/h)	1	0	5			0	0		0	
Percent Heavy Vehicles	0	0	0		0		0		0	
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0						0	
Lanes	0	0	0			0	0		0	
Configuration		LR								
Delay, Queue Length, a	and Level of Se	rvice								
Approach	Northbound	Southbound		Westb	ound			Eastbound	<u></u>	
Movement	1	4	7	8	:	9	10	11	12	
Lane Configuration	LT							LR	1,	
v (veh/h)	6		_					6		
C (m) (veh/h)	1517							932	 	
v/c	0.00	-					 	0.01	 	
95% queue length	0.01						-	0.02		
Control Delay (s/veh)	7.4							8.9	+	
LOS	A A						 	A A	+	
Approach Delay (s/veh)	A		_					8.9		
Approach LOS							-			
Approach LOS				CS+TM			1	A	013 10:15 A	

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	TW	O-WAY STOP	CONTR	OL S	UMI	MARY			
General Informatio	n		Site I	nforn	natio	on			
Analyst	DHH		Interse	ection			Route 10	7/Estate F	Road
Agency/Co.	Horner &	Canter Associates					St. John,		
Date Performed	1/21/13		Analys	is Yea	ar		Existing		
Analysis Time Period		AM Peak							
Project Description 13		b at Summer's End							
East/West Street: Esta						t: Route 1	07		
Intersection Orientation:	North-South		Study I	Period	(hrs)	: 0.25			
Vehicle Volumes a	<u>nd Adjustme</u>								
Major Street		Northbound	_				Southbou	ınd	
Movement	1 -	2 T	3 R			4	5 T		6 R
Volume (veh/h)	0	55	<u> </u>	_		<u> </u>	79		2
Peak-Hour Factor, PHF	0.90	0.90	0.84		\vdash	1.00	0.90	-+	0.90
Hourly Flow Rate, HFR									
(veh/h)	0	61	0			0	87		2
Percent Heavy Vehicles	0					0			
Median Type				Undi	vided	1			
RT Channelized			0						0
Lanes	0	1	0			0	1		0
Configuration	LT								TR
Upstream Signal							0		
Minor Street		Eastbound					Westbou	<u>nd</u>	
Movement	7	8	9			10	11		12
	L	Т	R			<u>L</u>	Т		R
Volume (veh/h)	0	0.04	1			0.04	0.04		4 00
Peak-Hour Factor, PHF Hourly Flow Rate, HFR	0.90	0.84	0.90			0.84	0.84		1.00
(veh/h)	0	0	1			0	0		0
Percent Heavy Vehicles	0	0	0			0	0		0
Percent Grade (%)		0					0		
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0						0
Lanes	0	0	0			0	0		0
Configuration		LR							
Delay, Queue Length, a	and Level of Se	rvice							
Approach	Northbound	Southbound		Westbo	ound		E	Eastbound	
Movement	1	4	7	8		9.	10	11	12
Lane Configuration	LT		-					LR	
v (veh/h)	0							1	
C (m) (veh/h)	1519							976	1
v/c	0.00							0.00	
95% queue length	0.00							0.00	1
Control Delay (s/veh)	7.4							8.7	
LOS	A A							A	
Approach Delay (s/veh)								8.7	1
Approach LOS								A	
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		O-WAY STOP						
General Informatio			Site I	nforma	ation			
Analyst	DHH		Interse				7/Estate R	oad
Agency/Co.		Canter Associate				St. John,	USVI	
Date Performed	1/21/13		Analys	<u>is Y</u> ear		Existing		
Analysis Time Period		PM Peak			<u> </u>			
		b at Summer's En						
East/West Street: Esta					reet: Route	<u> 107 </u>		
Intersection Orientation:			Study	eriod (i	nrs): 0.25			
Vehicle Volumes a	nd Adjustme					- 41		
Major Street		Northbound	1 0		4	Southbou	und	
Movement	1 1		3 R		4 	5 T		6
Volume (veh/h)	6	83	+	-+	<u>L</u>	71		R 1
Peak-Hour Factor, PHF	0.93	0.93	0.84	$\overline{}$	1.00	0.93		0.93
Hourly Flow Rate, HFR			1	_				
veh/h)	6	89	0		0	76		1
Percent Heavy Vehicles	0				0			
Median Type				Undivi	ded	.,		-
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal					_	0		
Minor Street		Eastbound				Westbou	nd	
Movement	7	<u>.</u> 8	9		10	11		12
	L	Т	R		L	T		R
Volume (veh/h) Peak-Hour Factor, PHF	2	0.04	5		0.04	0.04		4.00
Hourly Flow Rate, HFR	0.93	0.84	0.93	-	0.84	0.84		1.00
veh/h)	2	0	5		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0	•	
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0	$\neg +$		+		0
anes	0	0	0		0	0		0
Configuration	 	LR	† <u> </u>		`	1		
Delay, Queue Length, a	nd Level of Se	_	-					
Approach	Northbound	Southbound	١	Vestbou	ınd ·	T F	Eastbound	
Movement	1	4	7	8	9	10	11	12
ane Configuration	LT	· ·	·		$+$ $\check{}$	10	LR	<u> </u>
(veh/h)	6					 	7	
(ven/n) C(m) (veh/h)	1535						933	-
/c	0.00						0.01	
95% queue length	0.00							-
<u> </u>							0.02	-
Control Delay (s/veh)	7.4					-	8.9	
.OS	Α						A	
Approach Delay (s/veh)							8.9	
Approach LOS							Α	

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	I W	O-WAY STOP	CONTR	UL SU	WWAKY			
General Informatio	n		Site I	nforma	ıtion			
Analyst	DHH		Interse	ection		Route 10	/Route 10	07
Agency/Co.	Horner &	Canter Associates	Jurisdi	ction		St. John,	USVI	
Date Performed	1/21/13		Analysis Year		Future 20	023		
Analysis Time Period	Friday Al	И Peak						
Project Description 13	3-001 Yacht Clui	b at Summer's End						
ast/West Street: Rout	e 10		North/S	South St	reet: Route	107		
ntersection Orientation:	East-West		Study F	Period (h	rs): <i>0.25</i>			
/ehicle Volumes aı	nd Adjustme	nts						
Major Street		Eastbound				Westbou	nd	
Movement	1	2	3		4	5		6
	L	Т	R		L	Т		R
/olume (veh/h)		32	47		104	29		
Peak-Hour Factor, PHF	1.00	0.84	0.84		0.84	0.84		1.00
lourly Flow Rate, HFR veh/h)	0	38	55		123	34		0
Percent Heavy Vehicles	0				0			
/ledian Type				Undivid	ded			
RT Channelized			0					0
anes	0	1	0		0	.1		0
Configuration			TR		LT			
Jpstream Signal		0	-		•	0		
linor Street		Northbound				Southbou	ınd	
/lovement	7	8	9		10	11		12
	L	Т	R		L	Т		R
/olume (veh/h)	42		122			1		
Peak-Hour Factor, PHF	0.84	1.00	0.84		1.00	1.00		1.00
lourly Flow Rate, HFR veh/h)	50	0	145		0	О		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
lared Approach		N I				N		
Storage		0				0		
RT Channelized			. 0					0
anes	0	0	0		0	0		0
Configuration	<u> </u>	LR			-			
Pelay, Queue Length, a	nd Level of Se						I	
pproach	Eastbound	Westbound	1	Northbou	ınd	S	outhbour	nd
Novement	1	4	7	8	9	10	11	12
ane Configuration	•	LT	•	LR	 	† .,	' ' '	 '-
(veh/h)		123		195				
(m) (veh/h)		1514		857		1		+
/c		0.08		0.23				+
5% queue length		<u> </u>				+		+-
_ <u> </u>		0.26		0.87				
Control Delay (s/veh)		7.6		10.4	_	 		
os		Α		В				
pproach Delay (s/veh)				10.4				

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	TW	O-WAY STOP	CONTR	OL SUN	//MARY				
General Information	n		Site I	nformat	tion				
Analyst	DHH		Interse	ection		Route 10	/Route	107	
Agency/Co.	Horner &	Canter Associates	Jurisdi	ction		St. John,	USVI		
Date Performed	1/21/13		Analys	is Year		Future 20)23		
Analysis Time Period	Friday PN	// Peak							
		b at Summer's End							
East/West Street: Route					eet: Route	107			
Intersection Orientation:	_East-West		Study F	Period (hr	rs): 0.25				
Vehicle Volumes ar	nd Adjustme								
Major Street		Eastbound				Westbou	ınd		
Movement	1	2	3		4	5			6
, , , , , ,	<u> </u>	T	R	_	<u>L</u>	T			₹
Volume (veh/h)	1.00	24	70	-+	191	33		4 /	20
Peak-Hour Factor, PHF	1.00	0.80	0.80	_	0.80	0.80		1.0	
Hourly Flow Rate, HFR (veh/h)	0	29	87		238	41		C)
Percent Heavy Vehicles	0				0			-	-
Median Type				Undivid	ed				
RT Channelized			0						
Lanes	0	1	0		0	1		C	<u> </u>
Configuration			TR		LT				
Upstream Signal	-	0		-		0			
Minor Street		Northbound			- 40	Southbou	und		
Movement	7	8	9		10	11	-		2
\ \ \ - \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	L	Т	R		L	<u></u>			-
Volume (veh/h) Peak-Hour Factor, PHF	62 0.80	1.00	168 0.80		1.00	1.00		1.0	20
Hourly Flow Rate, HFR							+		
(veh/h)	77	0	209		0	0)
Percent Heavy Vehicles	0	0	0		0	0		C)
Percent Grade (%)		0				0			
Flared Approach		N				N			
Storage		0				0			
RT Channelized			0						
Lanes	0	0	0		0	0)
Configuration		LR							
Delay, Queue Length, a							11-1		
Approach	Eastbound	Westbound		Northbou			Southbo		
Movement	1	4	7	8	9	10	11	+	12
Lane Configuration		LT	_	LR				\dashv	
v (veh/h)		238		286		_		\dashv	
C (m) (veh/h)		1485		709	_			\dashv	
v/c		0.16		0.40		_		\dashv	
95% queue length		0.57		1.96					
Control Delay (s/veh)		7.9		13.5				\dashv	
LOS		A		В					
Approach Delay (s/veh)				13.5					
Approach LOS				В					
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TWO-WAY STOP CONTROL SUMMARY **General Information** Site Information DHH Analyst Intersection Route 10/Route 107 Agency/Co. Horner & Canter Associates Jurisdiction St. John, USVI Date Performed 1/21/13 Analysis Year Future 2023 Saturday AM Peak Analysis Time Period Project Description 13-001 Yacht Club at Summer's End East/West Street: Route 10 North/South Street: Route 107 Intersection Orientation: East-West Study Period (hrs): 0.25 Vehicle Volumes and Adjustments Major Street Eastbound Westbound Movement 2 3 4 6 5 L R L Т R Volume (veh/h) 43 60 167 41 Peak-Hour Factor, PHF 1.00 0.92 0.92 0.92 0.92 1.00 Hourly Flow Rate, HFR 0 65 46 181 44 0 (veh/h) Percent Heavy Vehicles 0 __ 0 Undivided Median Type RT Channelized 0 0 Lanes 0 1 0 0 1 0 Configuration TR LTUpstream Signal 0 0 Minor Street Northbound Southbound Movement 7 9 10 12 8 11 L Т R Т R L Volume (veh/h) 77 191 Peak-Hour Factor, PHF 0.92 1.00 0.92 1.00 1.00 1.00 Hourly Flow Rate, HFR 0 83 207 0 0 0 (veh/h) Percent Heavy Vehicles 0 0 0 0 0 0 Percent Grade (%) 0 0 Fiared Approach N N 0 Storage 0 RT Channelized 0 0 Lanes 0 0 0 0 0 0 LR Configuration Delay, Queue Length, and Level of Service Approach Eastbound Westbound Northbound Southbound Movement 7 1 4 8 9 10 11 12 Lane Configuration LT LR 290 v (veh/h) 181 C (m) (veh/h) 1492 758 0.38 v/c 0.12 95% queue length 0.41 1.80 Control Delay (s/veh) 7.7 12.7 os Α В Approach Delay (s/veh) 12.7 ~-Approach LOS ----В

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	TW	O-WAY STOP	CONTR	OL SUM	MARY			
General Informatio	n		Site I	nformat	ion			
Analyst	DHH		Interse	ection		Route 10	/Route 10	7
Agency/Co.	Horner &	Canter Associate	S Jurisdi	ction		St. John,		
Date Performed	1/21/13		Analys	is Year		Future 20	023	
Analysis Time Period	Saturday	PM Peak						
Project Description 13		b at Summer's En	d					
East/West Street: Rout					et: Route	107		
Intersection Orientation:	East-West		Study I	Period (hrs	s): 0.25			
Vehicle Volumes a	nd Adjustme							
Major Street		Eastbound				Westbou	ınd	
Movement	11	2	3		4	5		6
	L	T	R		L	T		R
Volume (veh/h)	1.00	27	53		183	32		4.00
Peak-Hour Factor, PHF Hourly Flow Rate, HFR	1.00	0.82	0.82		0.82	0.82		1.00
nourly Flow Rate, HFR (veh/h)	0	32	64		223	39		0
Percent Heavy Vehicles	- 0		 -		0	 		
Median Type				Undivide	ed			
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration			TR		LT			
Upstream Signal		0				0		
Minor Street		Northbound				Southbou	und	
Movement	7	8	9		10	11		12
	L	Т	R			Т		R
Volume (veh/h)	72		170					
Peak-Hour Factor, PHF	0.82	1.00	0.82		1.00			1.00
Hourly Flow Rate, HFR (veh/h)	87	0	207		0	О		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0		0	0		0
Configuration		LR						
Delay, Queue Length, a	nd Level of Se	rvice						
Approach	Eastbound	Westbound		Northboun	d	S	Southboun	d
Movement	1	4	7	8	9	10	11	12
ane Configuration		LT		LR				
/ (veh/h)		223		294		1		
C (m) (veh/h)		1510		717				
//c		0.15		0.41				
95% queue length		0.52		2.01		†		1
Control Delay (s/veh)		7.8		13.5		+		
LOS		A A		B		+	-	+
Approach Delay (s/veh)				13.5				
				B		+		_
Approach LOS				S+TM Vers			ated: 1/24/2	

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	TW	O-WAY STOP	CONTRO	OL S	UMM	ARY			
General Informatio	n		Site Ir	nforn	natio				
Analyst	DHH		Interse	ction			Route 10	7/Estate F	Road
Agency/Co.		Canter Associates					St. John,		
Date Performed	1/21/13		Analys	is Yea	ar		Future 20	23	
Analysis Time Period	Friday Al								
Project Description 13		o at Summer's End							
East/West Street: Esta						Route 1	107		
Intersection Orientation:	North-South		Study F	Period	(hrs):	0.25			
Vehicle Volumes a	nd Adjustme								
Major Street		Northbound			<u> </u>		Southbou	nd	
Movement	1 1	2 T	3			4	5 T		<u>6</u>
Volume (veh/h)	37	83	R			_ <u>L</u>	89		R .0
Peak-Hour Factor, PHF	0.87	0.87	0.84		-	1.00	0.87		0.87
Hourly Flow Rate, HFR					<u> </u>				
(veh/h)	42	95	0			0	102		0
Percent Heavy Vehicles	0					0			
Median Type				Undi	vided				
RT Channelized			0						0
Lanes	0	1	0			0	1		0
Configuration	LT								TR
Upstream Signal		0			<u></u>		. 0		
Minor Street		Eastbound					Westbou	nd	
Movement	7	8	9			10	11		12
	L	Т	R			L	T		R
Volume (veh/h)	3		35		ļ	201	2.24		1.00
Peak-Hour Factor, PHF	0.87	0.84	0.87).84	0.84		1.00
Hourly Flow Rate, HFR (veh/h)	3	О	40			0	0		0
Percent Heavy Vehicles	0	0	0			0	0		0
Percent Grade (%)		0					0		
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0						0
Lanes	0	0	0			0	0		0
Configuration		LR							
Delay, Queue Length, a	and Level of Se	rvice							
Approach	Northbound	Southbound	1	Vestb	ound		E	Eastbound	
Movement	1	4	7	8		9	10	11	12
Lane Configuration	LT							LR	
v (veh/h)	42							43	
C (m) (veh/h)	1503							934	
v/c	0.03							0.05	
95% queue length	0.09							0.14	
Control Delay (s/veh)	7.5				\dashv			9.0	
LOS	A A	-			\dashv			A	+
Approach Delay (s/veh)								9.0	
Approach LOS								A A	
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	TW	O-WAY STOP	CONTRO	OL SUM	IMARY		_	
General Informatio	n		Site Ir	nformat	ion			
Analyst	DHH		Interse	ction		Route 10	7/Estate R	oad
Agency/Co.	Horner &	Canter Associates	Jurisdio	ction		St. John,	USVI	
Date Performed	1/21/13		Analys	is Year_		Future 20	23	
Analysis Time Period	Friday PN		<u> </u>					
Project Description 13	3-001 Yacht Club	b at Summer's End						
East/West Street: Estat					et: Route	<u> 107 </u>		
Intersection Orientation:			Study F	Period (hr	s): 0.25			
Vehicle Volumes a	<u>nd Adjustme</u>							
Major Street	 	Northbound				Southbou	ind	
Movement	$\frac{1}{L}$	2 T	3 R		4 	5 T		6 R
Volume (veh/h)	79	176	R	_		144	_	3
Peak-Hour Factor, PHF	0.92	0.92	0.84		1.00	0.92	-	0.92
Hourly Flow Rate, HFR				_				
(veh/h)	85	191	0		0	156		3
Percent Heavy Vehicles	0				0			<u></u> ·
Median Type				Undivide	ed			
RT Channelized			0					0
_anes	0	1	. 0		0	1		0
Configuration	LT							TR
Jpstream Signal		0			_	0		
Minor Street		Eastbound			_	Westbou	nd	_
Movement	7	8	9_		10	11		12
	L	Т	R		L	Т		R
Volume (veh/h)	1	2.04	77		0.04	0.04	_	4.00
Peak-Hour Factor, PHF	0.92	0.84	0.92		0.84	0.84		1.00
Hourly Flow Rate, HFR (veh/h)	1	0	83		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0	•			0		
Flared Approach		N				T N		_
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration	- 	LR				†		_
Delay, Queue Length, a	and Level of Se							
Approach	Northbound	Southbound	V	Vestboun	d	T F	astbound	
Movement	1	4	7	8	9	10	11	12
ane Configuration	LT	 	-		+ $$	1 10	LR	
/ (veh/h)	85				 		84	1
C (m) (veh/h)	1433	-					884	
	0.06	 			 		0.10	+
//C		-			+	 		\vdash
95% queue length	0.19				+		0.31	-
Control Delay (s/veh)	7.7						9.5	
_OS	A						<u> </u>	
Approach Delay (s/veh)	<u> </u>						9.5	
Approach LOS							Α	

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		TW	O-WAY	STOP C	ONTR	OL S	UMN	//ARY				
General Informatio	<u>n</u>				Site I	nform	natio	n				
Analyst		———— ЭНН			Interse	ection	_	,	Route 1	07/E	state Ro	oad
Agency/Co.	H	lorner &	Canter As	sociates	Jurisdi				St. Johi	1, US	VI	
Date Performed		/21/13			Analys	is Yea	r_		Future	2023		
Analysis Time Period			AM Peak		<u> </u>		_			_		
Project Description 13			at Summ	er's End								
East/West Street: Esta								t: Route 1	07			
Intersection Orientation:					Study F	Period	(hrs):	: 0.25				
Vehicle Volumes a	<u>nd Adj</u>	ustme	_						<u> </u>			
Major Street	_		North		3	-			Southb	ound	_	6
<u>Movement</u>	+-	 		2 T	R			<u>4</u>	5 T		+-	6 R
Volume (veh/h)	+-	78	11				_		144		+	2
Peak-Hour Factor, PHF	_	0.90	0.9		0.84			1.00	0.90	_	+ ,	0.90
Hourly Flow Rate, HFR									_		 	
(veh/h)		86	13	57	0			0	160	<u> </u>		2
Percent Heavy Vehicles		0	_					0 .				
Median Type						Undi	⁄ided					
RT Channelized					0						\bot	0
Lanes		0	1		0			0	1		_	0
Configuration	_	LT	 							_		TR_
Upstream Signal	+-								0			
Minor Street			Eastb						Westbo			- 10
Movement	-	7		3	9			10	11		+-	12
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		<u>_ L</u>		Γ	R			L	Т			R
Volume (veh/h) Peak-Hour Factor, PHF		0.90	0.8	24	74 0.90			0.84	0.84	4	 	1.00
Hourly Flow Rate, HFR	+-'							0.84		+	+	
(veh/h)		0)	82			0	0			0
Percent Heavy Vehicles		0	C		0			0	0			0
Percent Grade (%)			-	0					0			
Flared Approach			٨	<i>i</i>					N			
Storage			0)					0			
RT Channelized					0							0
Lanes		0	0		0			0	0			0
Configuration			LH	7								
Delay, Queue Length, a	nd Lev	el of Ser	vice									
Approach	Northb		Southbo	ound		Vestbo	ound			Eas	tbound	
Movement	1	1	4		7	8		9	10	\top	11	12
Lane Configuration	Lī	τ									LR	
v (veh/h)	86	5									82	
C (m) (veh/h)	142	_								\top	889	
v/c	0.0						\neg			_	0.09	
95% queue length	0.1	_								-	0.30	
Control Delay (s/veh)	7.									_	9.5	
LOS	A	$\overline{}$			_		_			+	A	
Approach Delay (s/veh)											9.5	
Approach LOS		-								•	A	
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	TW	O-WAY STOP	CONTR	OL SI	MNL	MARY			
General Informatio	n		Site I	nform	atio	on			
Analyst	DHH		Interse	ction			Route 107	7/Estate F	Road
Agency/Co.	Horner &	Canter Associates					St. John,	USVI	
Date Performed	1/21/13		Analys	is Yea	r		Future 20	23	
Analysis Time Period	Saturday	PM Peak			_				_
Project Description 13	-001 Yacht Clul	at Summer's End							
East/West Street: Estat			North/S	South S	Stree	t: Route 1	07		
Intersection Orientation:	North-South		Study F	Period	(hrs)	: 0.25			
Vehicle Volumes ar	nd Adjustme	nts							
Major Street		Northbound					Southbou	nd	
Movement	1	2	3			4	5		6
	L	Т	R			L	T		R
Volume (veh/h)	85	149					135		1
Peak-Hour Factor, PHF	0.93	0.93	0.84			1.00	0.93		0.93
Hourly Flow Rate, HFR (veh/h)	91	160	0			0	145		1
Percent Heavy Vehicles	0		1			0			
Median Type				Undiv	videa	1			
RT Channelized			0						0
Lanes	0	1	0			0	1		0
Configuration	LT								TR
Upstream Signal		0					0		
Minor Street		Eastbound					Westbou	nd	
Movement	7	8	9			10	11		12
	L	Т	R			L	T		R
Volume (veh/h)	2		79						
Peak-Hour Factor, PHF	0.93	0.84	0.93			0.84	0.84		1.00
Hourly Flow Rate, HFR (veh/h)	2	О	84			0	0		0
Percent Heavy Vehicles	0	0	0			0	0		0
Percent Grade (%)		0					0		
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0						0
Lãnes	0	0	0			0	0		0
Configuration		LR							_
Delay, Queue Length, a	and Level of Se					_			
Approach	Northbound	Southbound		Westbo	nund			Eastbound	4
Movement	1	4	7	8		9	10	11	12
		4		H			10	LR	1 12
Lane Configuration	LT 04								
v (veh/h)	91							86	+
C (m) (veh/h)	1448							890	
v/c	0.06							0.10	
95% queue length	0.20							0.32	
Control Delay (s/veh)	7.7							9.5	
LOS	Α							Α	
Approach Delay (s/veh)								9.5	
Approach LOS								A	
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·	TW	O-WAY STOP	CONTR	OL S	UMN	MARY			
General Informatio	n		Site I	nform	natio	on			
Analyst	DHH		Interse	ection			Route 10	7/Site Acce	ess North
Agency/Co.	Horner &	Canter Associates	Jurisdi	ction			St. John,		
Date Performed	1/21/13		Analys	is Yea	ar	_	Future 20	23	
Analysis Time Period	Friday Al	<u> Peak</u>					<u> </u>		
Project Description 13		b at Summer's End							
East/West Street: Site			_			t: Route 1	07		
Intersection Orientation:			Study I	Period	(hrs)	: 0.25			
Vehicle Volumes a	<u>nd Adjustme</u>								
Major Street		Northbound					Southbou	ind	
Movement	1 1		3 R		 	4	5 T		6 R
Volume (veh/h)	21	61	<u> </u>		\vdash	_ L	64		7 7
Peak-Hour Factor, PHF	0.87	0.87	0.84		\vdash	1.00	0.87	-	<u>,</u> 0.87
Hourly Flow Rate, HFR									
(veh/h)	24	70	0			0	73		8
Percent Heavy Vehicles	0					0	_		- ~
Median Type				Undi	videa	1			
RT Channelized			0						0
Lanes	0	1	0	_			1		0
Configuration	LT								TR
Upstream Signal		. 0			<u> </u>	_	0		
Minor Street		Eastbound	_				Westbou	nd	
Movement_	7	8	9			10	11		12
	L	Т	R				Т		R
Volume (veh/h)	13		25			2.24	2.24		1.00
Peak-Hour Factor, PHF	0.87	0.84	0.87			0.84	0.84		1.00
Hourly Flow Rate, HFR (veh/h)	14	0	28			0	0		0
Percent Heavy Vehicles	0	0	0			0	0		0
Percent Grade (%)		0					0		
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0						0
Lanes	0	. 0	0			0	0		0
Configuration		LR							
Delay, Queue Length, a	and Level of Se	rvice							
Approach	Northbound	Southbound	1	Westb	ound		E	astbound	
Movement	1	4	7	8		9	10	11	12
Lane Configuration	LT							LR	
v (veh/h)	24							42	
C (m) (veh/h)	1529				_			911	
v/c	0.02							0.05	
95% queue length	0.05							0.14	
Control Delay (s/veh)	7.4							9.1	
LOS	Α							Α	
Approach Delay (s/veh)								9.1	
Approach LOS								A	
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	TV	O-WAY STOP	CONTR	OL S	UMI	MARY			
General Informatio	n	_	Site I	nforn	natio	on			
Analyst	DHH	_	Interse	ection			Route 10	7/Site Ac	cess North
Agency/Co.	Horner 8	Canter Associate	S Jurisd	iction			St. John,		
Date Performed	1/21/13		Analys	is Yea	ar		Future 20)23	
Analysis Time Period	Friday Pi	M Peak							
Project Description 13		b at Summer's End	d						
East/West Street: Site			North/S	South S	Stree	t: Route 1	07		
Intersection Orientation:	North-South		Study I	Period	(hrs)	: 0.25			
Vehicle Volumes a	nd Adjustme					_			
Major Street		Northbound		· ·			Southbou	ınd	
Movement	1	2	3			4	5		6
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	L L	T	R		├	<u>L</u>	T		R
Volume (veh/h)	40	129			<u> </u>	4.00	92		13
Peak-Hour Factor, PHF Hourly Flow Rate, HFR	0.92	0.92	0.84		├	1.00	0.92		0.92
(veh/h)	43	140	0			0	99		14
Percent Heavy Vehicles	0	·				0			
Median Type				Undi	vided	1			
RT Channelized			0						0
Lanes	0	1	0			0	1		0
Configuration	LT	,							TR
Upstream Signal		0					0		
Minor Street		Eastbound					Westbou	nd	
Movement	7	8	9			10	11		12
_	L	Т	R			L	Т		R
Volume (veh/h)	28		55						
Peak-Hour Factor, PHF	0.92	0.84	0.92			0.84	0.84		1.00
Hourly Flow Rate, HFR (veh/h)	30	О	59			0	0		0
Percent Heavy Vehicles	0	0	0			0	0		0
Percent Grade (%)		0					0	<u> </u>	
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0						0
Lanes	0	0	0			0	0		0
Configuration		LR							
Delay, Queue Length, a	and Level of Se	rvice							
Approach	Northbound	Southbound		Vestb	ound		E	Eastboun	d
Movement	1	4	7	8		9	10	11	12
Lane Configuration	LT							LR	
v (veh/h)	43					_		89	
C (m) (veh/h)	1489							823	
v/c	0.03							0.11	
95% queue length	0.09							0.36	
Control Delay (s/veh)	7.5	-						9.9	1
LOS	A							A	
Approach Delay (s/veh)	`							9.9	
Approach LOS					_			A	
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General Information Analyst Agency/Co. Date Performed Analysis Time Period Project Description 13- East/West Street: Site A Intersection Orientation: Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles Median Type	DHH Horner & 1/21/13 Saturday 001 Yacht Club ccess North North-South	at Summer's End	Intersect Jurisdicti Analysis North/So Study Pe	Year	t: Route	St. John, Future 20	23	-
Agency/Co. Date Performed Analysis Time Period Project Description 13- East/West Street: Site A Intersection Orientation: Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	Horner & 1/21/13 Saturday 001 Yacht Club ccess North North-South d Adjustme 1 L 44 0.90	nts Northbound 2 T 66	Jurisdicti Analysis North/So Study Pe	Year uth Street	: 0.25	St. John, Future 20	USVI 23	-
Date Performed Analysis Time Period Project Description 13- East/West Street: Site A Intersection Orientation: Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	1/21/13 Saturday 001 Yacht Club ccess North North-South d Adjustme 1 L 44 0.90	nts Northbound 2 T 66	Analysis North/So Study Pe	Year uth Street	: 0.25	Future 20	23	
Analysis Time Period Project Description 13- East/West Street: Site A Intersection Orientation: Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	Saturday 001 Yacht Club ccess North North-South d Adjustme 1 L 44 0.90	nts Northbound 2 T 66	North/So Study Pe	uth Street	: 0.25	107 Southbou		
Project Description 13- East/West Street: Site A Intersection Orientation: Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	001 Yacht Club ccess North North-South d Adjustme	nts Northbound 2 T 66	North/So Study Pe		: 0.25	Southbou	nd	
East/West Street: Site A Intersection Orientation: Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	ccess North North-South d Adjustme 1 L 44 0.90	Northbound 2 T 66	North/So Study Pe		: 0.25	Southbou	nd	
Intersection Orientation: Vehicle Volumes an Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	North-South d Adjustme 1 L 44 0.90	Northbound 2 T 66	Study Pe		: 0.25	Southbou	nd	
Vehicle Volumes and Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	1 L 44 0.90	Northbound 2 T 66	3 R	eriod (hrs):			nd	
Major Street Movement Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	1 L 44 0.90	Northbound 2 T 66	R		4		nd	
Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	L 44 0.90	2 T 66	R		4		nd	
Volume (veh/h) Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	L 44 0.90	T 66	R		4	5		
Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	0.90	66						6
Peak-Hour Factor, PHF Hourly Flow Rate, HFR (veh/h) Percent Heavy Vehicles	0.90				<u> L </u>	Т		<u>R</u>
Hourly Flow Rate, HFR veh/h) Percent Heavy Vehicles		0.90				89		14
(veh/h) Percent Heavy Vehicles	48		0.84		1.00	0.90		0.90
		73	0		0	98		15
Median Type	0				0			
				<u>Undivided</u>				
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration	LT							TR
Jpstream Signal		0			_	0		
Minor Street		Eastbound				Westbou	nd	
Movement	7	8	9		10	11		12
	L	T	R		L	Т		Ŕ
/olume (veh/h)	29		57					
Peak-Hour Factor, PHF	0.90	0.84	0.90		0.84	0.84		1.00
Hourly Flow Rate, HFR veh/h)	32	0	63		0	О		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
lared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	0	0	-+-	0	0	\neg	0
Configuration		LR				<u> </u>		
Delay, Queue Length, ar	nd Level of Se					•		
Approach	Northbound	Southbound		estbound		I F	Eastbound	
Movement	1	4	7	8	9	10	11	12
ane Configuration	LT	- 7		-		10	LR	
(veh/h)	48					-	95	+
						+	848	\vdash
C (m) (veh/h)	1489							\vdash
//c	0.03						0.11	₩
95% queue length	0.10						0.38	
Control Delay (s/veh)	7.5						9.8	
LOS	Α						Α	
Approach Delay (s/veh)							9.8	
Approach LOS							Α	

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	TW	O-WAY STOP	CONTRO	L SUM	MARY			
General Informatio	n		Site In	formati	on			
Analyst	DHH		Intersed	ction	_	Route 10	7/Site Acce	ss North
Agency/Co.	Horner &	Canter Associates	Jurisdic	tion		St. John,	USVI	
Date Performed	1/21/13		Analysi	s Year		Future 20	23	
Analysis Time Period		PM Peak						
Project Description 13		b at Summer's End						
East/West Street: Site					et: Route	107		
Intersection Orientation:			Study P	eriod (hrs): 0.25			
Vehicle Volumes a	<u>nd Adjustme</u>					_		
Major Street		Northbound				Southbou	ınd	
Movement	1 1	2	3		4	5		6
\	L	99	R		L,	79		R 14
Volume (veh/h) Peak-Hour Factor, PHF	0.93	0.93	0.84		1.00	0.93		0.93
Hourly Flow Rate, HFR								
(veh/h)	47	106	0		0	84		15
Percent Heavy Vehicles	0				0	-		
Median Type				Undivide	d			
RT Channelized			0					0
Lanes	0	1	0		0	1		,0
Configuration	LT				•			TR
Upstream Signal		0				0		
Minor Street		Eastbound				Westbou	nd	
Movement	7	8	9		10	11		12
	L	Т	R		L	T		R
Volume (veh/h)	29		57					
Peak-Hour Factor, PHF	0.93	0.84	0.93		0.84	0.84		1.00
Hourly Flow Rate, HFR (veh/h)	31	0	61		0	0		0
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0_		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration		LR						
Delay, Queue Length, a	and Level of Se	rvice						
Approach	Northbound	Southbound	V	Vestbound	b		astbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	47						92	
C (m) (veh/h)	1507						849	
v/c	0.03		-				0.11	
95% queue length	0.10						0.36	
Control Delay (s/veh)	7.5	 			1		9.8	
LOS	A		<u> </u>		1		Α	
Approach Delay (s/veh)					1		9.8	1
Approach LOS						 	A	
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0 11 6									
General Informatio	<u>n</u>		Site I	nform	natio	on			_
Analyst	DHH		Interse	ection				7/Site Acc	cess
Agency/Co.		Canter Associates	¬≀∟				South	1101/1	
Date Performed	1/21/13		Jurisd	sis Yea	<u>-</u>		St. John, Future 20		
Analysis Time Period	Friday Al	M Peak	Analys	ois rea			Future 20	123	
Project Description 13	2 001 Vacht Clu	h at Summar's End		_				_	
East/West Street: Site		<u>D'al Summer s'End</u>	North/9	South S	Stree	t: Route 1	107		
ntersection Orientation:						: 0.25			
Vehicle Volumes a		nto	jotacy i	01104	(/110)				
Major Street	Tu Aujustine	Northbound		_			Southbou	ınd	
Movement	 	2	3			4	5	IIIu_	6
VIOVOINOIR	 		R			L	l Ť		R
Volume (veh/h)	2	59					71		8
Peak-Hour Factor, PHF	0.87	0.87	0.84	!		1.00	0.87		0.87
Hourly Flow Rate, HFR	2	67	0			0	81		9
veh/h)		0/					01		-
Percent Heavy Vehicles	0					0			
Median Type				Undiv	⁄idea	<u> </u>			
RT Channelized			0						0
anes	0	1	0			0	1		0
Configuration	LT								<u>TR</u>
Jpstream Signal		0					0		
/linor Street		Eastbound					Westbou	nd_	
Movement	7	8	9			10	11		12
	L	T	R			L	T		R
/olume (veh/h)									
Peak-Hour Factor, PHF	0.87	0.84	0.87	·-		0.84	0.84		1.00
Hourly Flow Rate, HFR veh/h)	О	0	0			0	0		. 0
Percent Heavy Vehicles	+ 0	0		$\overline{}$		0	0		
Percent Grade (%)	 			-			0		
		0 1							
Flared Approach		N N					N		
Storage		0					0_		
RT Channelized			0						0
anes	0	0	0_			0	0		
Configuration							<u> </u>		
elay, Queue Length, a									
Approach	Northbound	Southbound		Westbo	ound			Eastbound	<u> </u>
Novement	1	4	7	- 8		9	10	11	12
ane Configuration	LT								
(veh/h)	2								
(m) (veh/h)	1518								
/c	0.00						 		
5% queue length	0.00	 			-				+-
Control Delay (s/veh)	7.4								+
									+
os	A								
pproach Delay (s/veh)		-							
Approach LOS									

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	TV	O-WAY STOP	CONTR	OL SUM	MARY				
General Informatio	n		Site I	nformati	on				
Analyst	DHH		Interse	ection		Route 10 South	7/Site Acce	ss	
Agency/Co.		Canter Associates	Jurisdi	iction		St. John,	USVI		
Date Performed	1/21/13		Analysis Year Future 2023						
Analysis Time Period	Friday P	M Peak							
Project Description 13	3-001 Yacht Clu	b at Summer's End							
East/West Street: Site			North/S	South Stree	et: Route	107	-		
ntersection Orientation:	North-South		Study I	Period (hrs): 0.25				
Vehicle Volumes a	nd Adiustme	ents							
Major Street	1	Northbound				Southbou	ınd		
Movement	1	2	3		4	5		6	
	L	T	R		L	Т		R	
Volume (veh/h)	5	124				105		16	
Peak-Hour Factor, PHF	0.92	0.92	0.84		1.00	0.92		0.92	
Hourly Flow Rate, HFR veh/h)	5	134	0		0	114		17	
Percent Heavy Vehicles	0				0				
Median Type				Undivide	d				
RT Channelized			0					0	
anes	0	1	0		0	1		0	
Configuration	LT							TR	
Jpstream Signal		0				0			
Minor Street		Eastbound				Westbou	nd		
Movement	7	8	9		10	11		12	
	L	Т	R		_ L	T		R	
Volume (veh/h)									
Peak-Hour Factor, PHF	0.92	0.84	0.92		0.84	0.84		1.00	
Hourly Flow Rate, HFR veh/h)	0	0	0		0	0		0	
Percent Heavy Vehicles	0	0	0		0	0		0	
Percent Grade (%)		0				0			
Flared Approach		N				N			
Storage		0				0			
RT Channelized			0					0	
_anes	0	0	0		0	0		0	
Configuration									
Delay, Queue Length, a	and Level of Se	ervice				-	· ·		
Approach	Northbound	Southbound		Westbound	<u> </u>		Eastbound		
Movement	1	4	7	8	9	10	11	12	
ane Configuration	LT	 			 	<u> </u>		<u> </u>	
(veh/h)	5	 							
<u> </u>	1467	 							
C (m) (veh/h)		 			-				
//C	0.00				<u> </u>				
5% queue length	0.01		_	_					
Control Delay (s/veh)	7.5								
.OS	A								
Approach Delay (s/veh)									

	TW		- i		4:			
General Informatio	<u>n</u>		Site Ir	nforma	<u>ition</u>			
Analyst	DHH		Interse	ction		Route 10 South	7/Site Ac	cess
Agency/Co.	Horner &	Canter Associates	Jurisdi			St. John,	1101/1	
Date Performed	1/21/13			is Year		Future 20		
Analysis Time Period	Saturday	AM Peak		is real		r diaro zo		
Project Description 13	1-001 Yacht Club	at Summer's End						
East/West Street: Site		de Garrin Tor e Erra	North/S	South Str	reet: Route	107		
Intersection Orientation:					rs): 0.25			
Vehicle Volumes ar	nd Adjustme	nts						
Major Street	100710000000	Northbound		$\neg \neg$		Southbou	ind	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
Volume (veh/h)	5	61				103		17
Peak-Hour Factor, PHF	0.90	0.90	0.84		1.00	0.90	——	0.90
Hourly Flow Rate, HFR	5	67	0		0	114		18
(veh/h) Percent Heavy Vehicles	0	 				 		
Median Type	+			Undivid				
RT Channelized		0						0
Lanes	 	1	0		0	1	\dashv	0
Configuration	LT	 					-	TR
Jpstream Signal		0				0		
Minor Street		Eastbound		_		Westbou	nd	
Movement	7	8	9		10	11		12
VIO V O. ITOTIC	i	T			<u>i</u>	T		R
Volume (veh/h)						 	\neg	
Peak-Hour Factor, PHF	0.90	0.84	0.90		0.84	0.84		1.00
Hourly Flow Rate, HFR	0	0			0	0		0
(veh/h)								
Percent Heavy Vehicles	0	0	0		0	0		0
Percent Grade (%)		0				0		
Flared Approach		N N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration	<u></u> _							
Delay, Queue Length, a		rvice						
Approach	Northbound	Southbound	\	Vestbou	ınd		Eastboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT							
/ (veh/h)	5							
C (m) (veh/h)	1466							
//c	0.00							
95% queue length	0.01	_						
Control Delay (s/veh)	7.5			_				
LOS	7.0 A	_	_		_		_	_
Approach Delay (s/veh)	A					_	L	
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		O-WAY STOP							
General Informatio	n		Site I	nform	natio	on			
Analyst	DHH		Interse	ection			Route 10 South	7/Site Ac	cess
Agency/Co.		Canter Associates	Jurisd	iction			St. John,	USVI	
Date Performed	1/21/13	DM Dools	Analys	sis Yea	r		Future 20		
Analysis Time Period	Saturday	PM Peak	$\neg \Box \Box$						
Project Description 13		b at Summer's End							
East/West Street: Site						t: Route	107		
Intersection Orientation:	North-South		Study	Period	(hrs)	: 0.25			
<u>Vehicle Volumes a</u>	nd Adjustme	nts							
Major Street		Northbound					Southboo	ind	
Movement	1 1	2	3			4	5		6
Valuma (vah/h)	L	T	R			L	T		R
Volume (veh/h) Peak-Hour Factor, PHF	5 0.93	94_ 0.93	0.84	, -		1.00	93 0.93	<u> </u>	17 0.93
Hourly Flow Rate, HFR									
(veh/h)	5	101	0			0	99		18
Percent Heavy Vehicles	0					0			
Median Type				Undiv	/idea	1			
RT Channelized								\top	0
Lanes	0	1	0			0	1		0
Configuration	LT								TR
Upstream Signal		_0				_	0		
Minor Street		Eastbound					Westbou	nd	
Movement	7	8	9			10	11		12
	L	Т	R			L	Т		R
Volume (veh/h)									
Peak-Hour Factor, PHF	0.93	0.84	0.93			0.84	0.84		1.00
Hourly Flow Rate, HFR (veh/h)	0	0	0			0	0		0
Percent Heavy Vehicles	0	0	0			0	0		0
Percent Grade (%)		0					0		
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0						0
Lanes	0	0	0			0	0		0
Configuration									
Delay, Queue Length, a	and Level of Se	rvice							
Approach	Northbound	Southbound		Westbo	ound			Eastboun	d
Movement	1	4	7	8		9	10	11	12
Lane Configuration	LT	_	_			_			
v (veh/h)	5								
C (m) (veh/h)	1484								
//c	0.00								_
95% queue length	0.01								+
Control Delay (s/veh)	7.4				_			_	
LOS		_	_	_	_	_	_	_	
	_						_		
Approach Delay (s/veh)									
Approach LOS									

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Rt.10/Rt.107 Intersection Diagram:

Rt.10 4-C 5 D FE

stryour RE10 NORTHBOUND Shipwest ALTO EASTBOUND Cruz Friday Rt. 10 WESTBOUND B. Right Turn D- Left Turn E- Right Turn F- Left Turn January11,2013 A- Thru C- Thru HHI 11) 1 6:00-6:15 AM ##14# 111 1 6:15-6:30 AM 111 11 1111 1111 HILL 111 6:30-6:45 AM 1111 111111 1111 ١ ١ 1 6:45-7:00 AM HH 11111 LHT HHT 111 111 1) 7:00-7:15 AM ift WH MIII HHI 4411 MTIIII HH 7:15-7:30 AM 1111 HTII 144111 HHH 111 III7:30-7:45 AM HIHTH Hit 1111 14411 144 111 itt 1111 44444 7:45-8:00 AM 1441 IHTII WHII HTHH 1111 1441 8:00-8:15 AM HF 1441111 4 HHIH W iHI 8:15-8:30 AM 41111 HHHH HITH HHHIII 1111 LHT HTI 8:30-8:45 AM 1 141111 HI HI HI 1// HT 1111 11 8:45-9:00 AM WHIT HHTIIII 411 LHTi HIIM IH! 9:00-9:15 AM WIII HUHL WIIII 141111 W IH 9:15-9:30 AM НΠ WHIT MIII HT 111 411 HHHH 14 9:30-9:45 AM HHILL HMI HHMIM WHIII WIII HTH 44111 9:45-10:00 AM IHT

1111

Yacht Club at Summer's End Coral Bay, U.S. Virgin Islands

Estate Road/Rt.107

Intersection Diagram:

ESTATE E- BA
E- DC

Havy

Friday	Rt.107 SO	UTHBOUND	Rt. 107 NO	ORTHBOUND	R1	te Road
nuary11,2013	A- Thru	B- Right Turn	C- Thru	D- Left Turn	E- Right Turn	F- Left Turn
0-6:15 AM	1		म्मा ।।।			1
5-6:30 AM	ı	-	THLIH			
0-6:45 AM	iit	1	1111	ı		11
45-7:00 AM	111		411 11		1	1
0-7:15 AM	111		HT 111			
6-7:30 AM	шшш		HT HT			١
30-7:45 AM	भी भा		HT HT	1		Ж
45-8:00 AM	प्रसार		HT MT			111
00-8:15 AM	HT HT		IN HT			
15-8:30 AM	MHHII		441411			
0-8:45 AM	417 HT		THI THI			1/
5-9:00 AM	Hi illi		un un un		111	1
0-9:15 AM	וזון און און און		uk iii			
5-9:30 AM	भी भी		II JAT JAT			
0-9:45 AM	JHI 1		HI LH			1
45-10:00 AM	WY U		州州		1	

Yacht Club at Summer's End Coral Bay, U.S. Virgin Islands

> 1/11/13 Enid

ESTATE EN HALL ROAD PC BT. 107 N

Estate Rd./Rt.107

Intersection Diagram:

Friday		THBOUND		RTHBOUND		e Road
January11,2013	A- Thru	B- Right Turn	C- Thru	D- Left Turn	E- Right Turn	F- Left Turn
4:00-4:15 PM	Humii	***	141 JH	-		11
4:15-4:30 PM	111 14114174111		!!! !!*``!!!!		-	, .
4:30-4:45 PM	III I	1	IHI IMIHTIHTI			
4:45-5:00 PM	HHT HHT HHE		III HHIHHTHH			
5:00-5:16 PM	HTH III		#1111 #11#1#1	1		11
5:15-5:30 PM	441444	Í	IIII HHUMAHT	1		11
5:30-5:46 PM	HI HI MI	1	ATUH () AHLHM	1		i
5:46-6:00 PM	HATHT HH	ł	HT HT II		1	11
5:00-5:15 PM	भी पामा	1	HHT		3	111
6:15-6:30 PM	HTHI	1	HHHHH	11		1) ,
6:30-6:45 PM	MAHTIM		HHHH			11
6:45-7:00 PM	HT HHAM	111	4111		Ì	

PH Stop by Cases

1) Motorcyc

1/11/13 - FRI Errin

R+.107

Rt.10/Rt.107

Intersection Diagram:

	Skinnylog	Shipweel		Shywest	Stimytes	Cruz Ba
Friday January11,2013	A- Thru	B- Right Turn	C- Thru	D- Left Turn	E- Right Turn	F- Left Turn
4:00-4:15 PM	141	44144	WHI	111	HIII	HTGHTUH HT IIII
4:15-4:30 PM	144/111	4111	Ш	MITHIN	4111	14111111
4:30-4:45 PM	LHTIII	1111	HTIIII	44444	HTH	HIMIH
4:45-5:00 PM	M	MHIIII	141	4111	1441111	HTH
5:00-5:15 PM	HILI	HILL	HHI	HThH	HTH	THE WAY
5:15-6:30 PM	11111	WINTHI	ļ	HTUH	JH JAH 11	IMILHI
6:30-6:45 PM	HTIII	HT III	IHTIII	HII	11/1	HIHII
5:45-6:00 PM	IHIII	1141	Î	HIMMIT	WHY	HHH
6:00-5:15 PM	14(1)	HT 1411	1111	此代册间	III	HTHH
6:15-6:30 PM	1111	HTHT	JHT.	411(1)	1211 HHT	HH HH
6;30-6:45 PM	11	111/11/11	111	441	HH	HITHI
6:45-7:00 PM	HTH	1141	111	HT14111	11	11)

R+.107

Rt.10/Rt.107 Intersection Diagram:

Saturday	Rt.10 E/	ASTBOUND	Rt. 10 V	VESTBOUND	Rt.107 NO	RTHBOUND
January12,2013	A- Thru	B- Right Turn	C- Thru	D- Left Turn	E- Right Turn	F- Left Turn
8:00-8:16 AM	il	W	i i		i i i	THI II
8:15-8:30 AM		HM	Remarks	11	Lawrench Lawrench August Martin Marti	III III
8:30-8:45 AM	111	HI HI	\	HIH	utti	THE PHI
8:45-9:00 AM	IN JU	IN IN	111	IHI	MIM	II III III
9:00-9:15 AM	HT 111	WT 11	HT HT	JH 1111	HT HT	HT HH
9:15-9:30 AM	HI II	JH 11	HT 11)	THE THE	M M	HIM!
9:30-9:45 AM	THINE	HTLHT	Milli	UK IIII	IN WI	IN WITH
9:45-10:00 AM	HT LHT	1)X JH1	JH 1111	JUTY (11)	JAN JAH	MAH

Estate Rd/Rt.107

intersection Diagram:

Saturday		DUTHBOUND		RTHBOUND	Estat	e Road
January12,2013	A- Thru	B- Right Turn	G- Thru	D Left Turn	E- Right Turn	F- Left Turn
8:00-8:15 AM	JH 11:1	1	MMM	1		[11
8:15-8:30 AM	MII		IM IM			1
8:30-8:45 AM	11111111		1111	_		1.
8:45-9:00 AM	M 11	111	HM 1HM			11
9:00-9:15 AM	1111 H1 JH1		MMM1			
9:15-9:30 AM	11/144		47111 4714			
9:30-9:45 AM	441		M III	1		
9:45-10:00 AM	111 1471 HTT		H1 H1 11	j		1

R+.107

Rt.10/Rt.107 Intersection Diagram:

Saturday		ASTROUND		ESTBOUND		RTHBOUND
January12,2013	A- Thru	B- Right Turn	C- Thru	D- Left Turn	E-Right Turn	F- Left Turn
4:00-4:15 PM	WITH	un utt	1111	MIM	MT	III HTT
4:15-4:30 PM	1441	MH III	M1111	HHI	HH 1111	MIM
4:30-4:45 PM	1111	11 1411 1411	III III	un un un	IM IM	IM MT
4:45-5:00 PM	M11	111 M1 M1	HT I	IN IN	WH III	LHT LHT
6:00-5:15 PM	M III	HH 1111	THIII	MIM	MI HI	III M
6:16-5:30 PM	THI II	UH UH	JHI III	11111	MM	IH 11
6:30-5:45 PM	THI	11	1111	1111	THI THI	MT /III
5:45-6:00 PM	HT ()	HI HT	THU	MI MI	THI THI	M 111
5:00-5:15 PM	HIT IM	HH 111	HT	11 1111	HI THI	UH 111 UH UH
6:15-6:30 PM	MI	WT WH WT	THI	MI III	JH 1111	THI
6:30-6:45 PM	111	MIM	1)	THI	HT 1111	(11
6;45-7:00 PM	m	MII	[]	JH 11)	HH 1)	HH HH

ESTATE E T BA

RUMO ATT

DC RT. 107 N

Estate Rd./Rt.107

Intersection Diagram:

Saturday		THTBOUND		RTHBOUND		e Road
January12,2013	A- Thru	B- Right Turn	C- Thru	D- Left Turn	E- Right Turn	F- Left Turn
4:00-4:15 PM	MIMIM	11 11	HT HT	,		
	1441		JM 1111			
4:15-4:30 PM	HH HH	1	MI MI		1.1	
	HH HH I		THILL	E		1
4:30-4:45 PM	HIHI	1	HH HH			1111
4.004,401111	M III		HILLINE	1		
4:45-5:00 PM	WIMIII	-	MIMI			
7.70-0.00 III	MIM		TH			
5:00-5:15 PM	HT HT I	11(1	MMH	1	(1	11
0,00-0, 18 FW			THU 1111			
5:15-5:30 PM	H4 1111	[[THIM	1		1
5:30-5:45 PM	MM		THI HH		1	11
0.50-0.40 FM	HLI THI	7	1111			
5:45-6:00 PM	HHM	1	MH HITH			11
0.40.00 FM	MMI		WHIMMI	,		
5:00-5:15 PM	M M		HH HH		1	
3.00-3.16 FM	TH		MIII			
6:15-6:30 PM	M1 144 11	111	THI THI			11
0.15-0:30 PW	MHH					
6:30-6:45 PM	JH 1111	11	MM			
0.45 7.00 DM	HH HH		MMM][[]
6:45-7:00 PM	WH 11		144 11			