PART D

CAPACITY ANALYSIS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	134	100	35	188	14	103	125	22	20	170	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00						1.00	
Frt		0.944			0.991			0.988			0.981	
Flt Protected		0.994			0.993			0.980			0.995	
Satd. Flow (prot)	0	3165	0	0	3166	0	0	2047	0	0	2058	0
Flt Permitted		0.888			0.868			0.790			0.947	
Satd. Flow (perm)	0	2828	0	0	2767	0	0	1650	0	0	1958	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		108			8			5			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						7						2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	1%	3%	4%	7%	2%	1%	0%	5%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	35	144	108	38	202	15	111	134	24	22	183	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	287	0	0	255	0	0	269	0	0	239	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

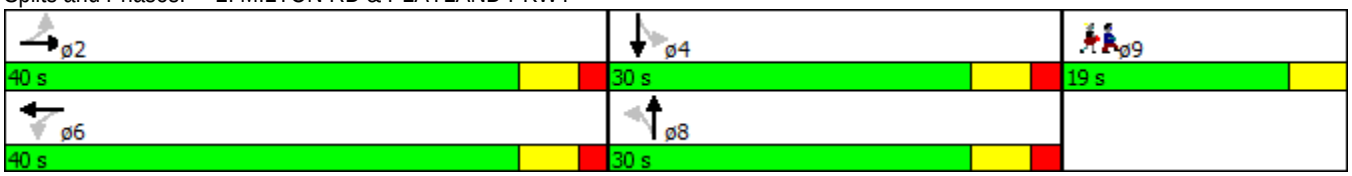
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		15.9			15.9			14.2			14.2	
Actuated g/C Ratio		0.35			0.35			0.31			0.31	
v/c Ratio		0.27			0.26			0.52			0.38	
Control Delay		9.9			14.3			17.3			14.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.9			14.3			17.3			14.5	
LOS		A			B			B			B	
Approach Delay		9.9			14.3			17.3			14.5	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)		13			18			46			38	
Queue Length 95th (ft)		66			81			153			127	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2270			2201			928			1102	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.13			0.12			0.29			0.22	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 45.2
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 13.9 Intersection LOS: B
Intersection Capacity Utilization 70.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	133	4	0	170	17	5	2	0	27	1	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00							0.99
Frt		0.996			0.986							0.850
Flt Protected		0.989						0.964			0.954	
Satd. Flow (prot)	0	3227	0	0	3237	0	0	1752	0	0	1876	1639
Flt Permitted		0.865						0.758			0.727	
Satd. Flow (perm)	0	2822	0	0	3237	0	0	1378	0	0	1430	1616
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			20							73
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%	0%	5%	0%	0%	0%	0%	0%	0%	2%
Adj. Flow (vph)	46	156	5	0	200	20	6	2	0	32	1	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	207	0	0	220	0	0	8	0	0	33	73
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.4			26.4			8.8			10.2	10.2
Actuated g/C Ratio		0.67			0.67			0.22			0.26	0.26
v/c Ratio		0.11			0.10			0.03			0.09	0.15
Control Delay		5.4			5.0			13.7			14.1	5.9
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.4			5.0			13.7			14.1	5.9
LOS		A			A			B			B	A
Approach Delay		5.4			5.0			13.7			8.5	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		12			12			1			5	0
Queue Length 95th (ft)		22			22			10			24	23
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2486			2853			678			703	832
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		0.08			0.08			0.01			0.05	0.09

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 39.2
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.15
Intersection Signal Delay: 6.0 Intersection LOS: A

Intersection Capacity Utilization 49.0% ICU Level of Service A

Analysis Period (min) 15

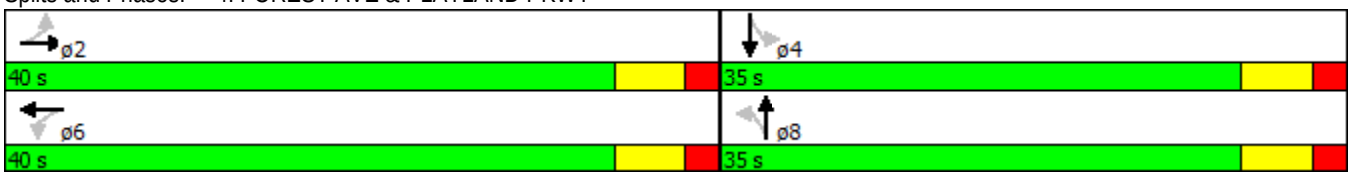
Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	9	69	4	32	13	78	147	0	5	112	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99						0.99	
Frt		0.935			0.960						0.946	
Flt Protected		0.975			0.996			0.983			0.999	
Satd. Flow (prot)	0	3033	0	0	3081	0	0	1959	0	0	1773	0
Flt Permitted		0.790			0.931			0.823			0.987	
Satd. Flow (perm)	0	2457	0	0	2880	0	0	1640	0	0	1752	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)											52	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			9			6						7
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	11%	2%	0%	0%	8%	3%	1%	0%	0%	2%	7%
Adj. Flow (vph)	99	11	83	5	39	16	94	177	0	6	135	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	193	0	0	60	0	0	271	0	0	234	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			13.1			13.1	
Actuated g/C Ratio		0.39			0.39			0.32			0.32	
v/c Ratio		0.20			0.05			0.52			0.40	
Control Delay		10.2			9.5			15.5			10.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.2			9.5			15.5			10.5	
LOS		B			A			B			B	
Approach Delay		10.2			9.5			15.5			10.5	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		13			3			47			30	
Queue Length 95th (ft)		38			15			98			69	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2058			2413			1172			1266	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.09			0.02			0.23			0.18	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 41.5	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 51.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



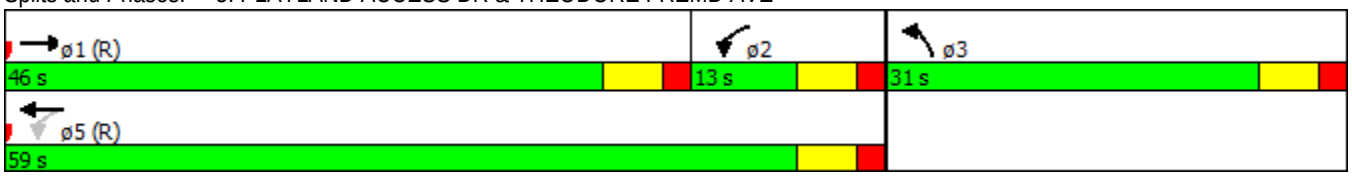
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	200	112	52	199	150	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.952				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1743	0	1778	1835	1684	0
Flt Permitted			0.493		0.974	
Satd. Flow (perm)	1743	0	923	1835	1684	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	40					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	2%	0%	2%	3%	2%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	215	120	56	214	161	138
Shared Lane Traffic (%)						
Lane Group Flow (vph)	335	0	56	214	299	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.42		0.09	0.20	0.64	
Control Delay	16.9		8.7	9.2	35.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	16.9		8.7	9.2	35.9	
LOS	B		A	A	D	
Approach Delay	16.9			9.1	35.9	
Approach LOS	B			A	D	
Queue Length 50th (ft)	110		12	52	149	
Queue Length 95th (ft)	179		28	86	238	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	796		610	1080	467	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.42		0.09	0.20	0.64	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 51.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	202	36	22	207	48	14	58	13	40	95	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			1.00				0.98
Frt		0.977			0.972			0.980				0.850
Flt Protected	0.950			0.950				0.992			0.985	
Satd. Flow (prot)	1752	1872	0	1530	1772	0	0	1884	0	0	2113	1876
Flt Permitted	0.597			0.607				0.943			0.888	
Satd. Flow (perm)	1101	1872	0	978	1772	0	0	1791	0	0	1905	1833
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		19										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)						1			2			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	3%	6%	9%	1%	4%	7%	3%	0%	5%	2%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	129	208	37	23	213	49	14	60	13	41	98	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	129	245	0	23	262	0	0	87	0	0	139	47
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.25	0.28		0.05	0.32			0.16			0.23	0.08
Control Delay	11.9	10.6		9.7	11.9			16.9			17.7	3.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	11.9	10.6		9.7	11.9			16.9			17.7	3.3
LOS	B	B		A	B			B			B	A
Approach Delay		11.0			11.8			16.9			14.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	28	50		5	60			24			40	0
Queue Length 95th (ft)	60	91		16	106			53			78	14
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	516	887		458	830			559			595	619
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.25	0.28		0.05	0.32			0.16			0.23	0.08

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.32
Intersection Signal Delay: 12.4 — Intersection LOS: B
Intersection Capacity Utilization 66.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	8	80	125	20	244	10	31	16	31	282	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.864			0.915			0.961			0.996	
Flt Protected	0.950				0.984			0.991			0.995	
Satd. Flow (prot)	1877	1763	0	0	1910	0	0	1800	0	0	1860	0
Flt Permitted	0.950				0.984			0.991			0.995	
Satd. Flow (perm)	1877	1763	0	0	1910	0	0	1800	0	0	1860	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	4%
Adj. Flow (vph)	40	9	88	137	22	268	11	34	18	34	310	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	97	0	0	427	0	0	63	0	0	355	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 56.3%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	11.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	36	8	80	125	20	244	10	31	16	31	282	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	1	0	4
Mvmt Flow	40	9	88	137	22	268	11	34	18	34	310	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	594	458	315	497	454	43	321	0	0	52	0	0
Stage 1	384	384	-	65	65	-	-	-	-	-	-	-
Stage 2	210	74	-	432	389	-	-	-	-	-	-	-
Follow-up Headway	3.5	4.009	3.3	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Capacity-1 Maneuver	546	614	783	448	468	1029	1250	-	-	1560	-	-
Stage 1	763	727	-	940	836	-	-	-	-	-	-	-
Stage 2	875	863	-	564	573	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	378	592	783	382	451	1029	1250	-	-	1560	-	-
Mov Capacity-2 Maneuver	378	592	-	382	451	-	-	-	-	-	-	-
Stage 1	756	707	-	932	828	-	-	-	-	-	-	-
Stage 2	624	855	-	481	558	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	21.3	1.4	0.7
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1250	-	-	378	678	639	1560	-	-
HCM Lane V/C Ratio	0.009	-	-	0.07	0.162	0.669	0.022	-	-
HCM Control Delay (s)	7.906	0	-	15.2	11.3	21.3	7.359	0	-
HCM Lane LOS	A	A		C	B	C	A	A	
HCM 95th %tile Q(veh)	0.027	-	-	0.224	0.576	5.085	0.067	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	178	91	44	371	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.956		0.967	
Flt Protected		0.997			0.964	
Satd. Flow (prot)	0	1977	1896	0	1754	0
Flt Permitted		0.997			0.964	
Satd. Flow (perm)	0	1977	1896	0	1754	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	1%	0%	1%	1%
Adj. Flow (vph)	14	198	101	49	412	133
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	212	150	0	545	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 54.6%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	16.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	178	91	44	371	120
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, %	-	-3	3	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	4	1	0	1	1
Mvmt Flow	14	198	101	49	412	133

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	150	0	-	0	353	126
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	227	-
Follow-up Headway	2.2	-	-	-	3.509	3.309
Pot Capacity-1 Maneuver	1444	-	-	-	647	927
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	813	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1444	-	-	-	640	927
Mov Capacity-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	804	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	26.7
HCM LOS			D

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1444	-	-	-	692
HCM Lane V/C Ratio	0.01	-	-	-	0.788
HCM Control Delay (s)	7.518	0	-	-	26.7
HCM Lane LOS	A	A			D
HCM 95th %tile Q(veh)	0.03	-	-	-	7.828

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	425	124	101	122	22	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.926		0.919	
Flt Protected		0.963			0.981	
Satd. Flow (prot)	0	1908	1876	0	1519	0
Flt Permitted		0.963			0.981	
Satd. Flow (perm)	0	1908	1876	0	1519	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Confl. Peds. (#/hr)				1		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	1%	0%	1%	2%	0%	0%
Parking (#/hr)					0	
Adj. Flow (vph)	478	139	113	137	25	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	617	250	0	63	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.17	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 56.3%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	6.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	425	124	101	122	22	34
Conflicting Peds, #/hr	0	0	0	1	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, %	-	3	-3	-	3	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	0	1	2	0	0
Mvmt Flow	478	139	113	137	25	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	251	0	-	0	1276	182
Stage 1	-	-	-	-	182	-
Stage 2	-	-	-	-	1094	-
Follow-up Headway	2.209	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	1320	-	-	-	150	853
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	270	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1320	-	-	-	91	853
Mov Capacity-2 Maneuver	-	-	-	-	91	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	164	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	31.2
HCM LOS			D

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1320	-	-	-	199
HCM Lane V/C Ratio	0.362	-	-	-	0.316
HCM Control Delay (s)	9.265	0	-	-	31.2
HCM Lane LOS	A	A			D
HCM 95th %tile Q(veh)	1.674	-	-	-	1.289

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	26	27	146	0	0	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	1987	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	1987	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	3%	0%	0%	2%
Adj. Flow (vph)	27	28	154	0	0	207
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	28	154	0	0	207
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	26	27	146	0	0	197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	27	28	154	0	0	207

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	361	154	0	0	154	0
Stage 1	154	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	515	856	-	-	1439	-
Stage 1	800	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	515	856	-	-	1439	-
Mov Capacity-2 Maneuver	515	-	-	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	734	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	515	856	1439	-
HCM Lane V/C Ratio	-	-	0.053	0.033	-	-
HCM Control Delay (s)	-	-	12.4	9.4	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.168	0.103	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	242	35	3	274	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.983					
Flt Protected			0.950			
Satd. Flow (prot)	1914	0	1760	1834	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1914	0	1760	1834	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	247	36	3	280	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	283	0	3	280	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	242	35	3	274	0	0
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	247	36	3	280	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	283	0	551	265
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	286	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1291	-	428	750
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	709	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1291	-	426	750
Mov Capacity-2 Maneuver	-	-	-	-	426	-
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	706	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1291	-
HCM Lane V/C Ratio	+	-	-	0.002	-
HCM Control Delay (s)	0	-	-	7.795	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.007	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	111	97	46	112	31	95	161	21	23	190	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					0.99						1.00	
Frt		0.941			0.975			0.990			0.977	
Flt Protected		0.992			0.988			0.983			0.996	
Satd. Flow (prot)	0	3149	0	0	3137	0	0	2054	0	0	2057	0
Flt Permitted		0.870			0.818			0.789			0.946	
Satd. Flow (perm)	0	2761	0	0	2598	0	0	1649	0	0	1954	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								5				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						20						10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	1%	2%	2%	3%	1%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	45	122	107	51	123	34	104	177	23	25	209	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	0	0	208	0	0	304	0	0	281	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

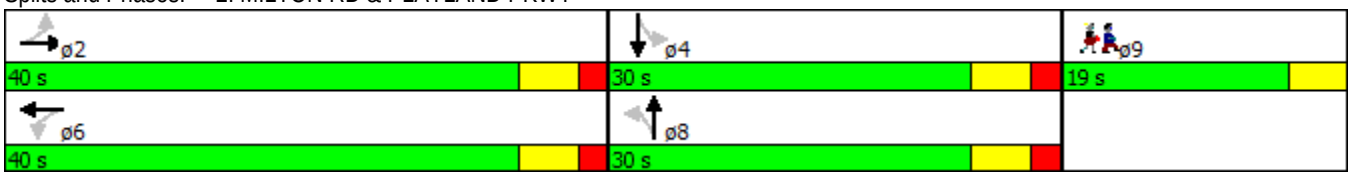
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		15.8			15.8			16.0			16.0	
Actuated g/C Ratio		0.34			0.34			0.34			0.34	
v/c Ratio		0.30			0.24			0.54			0.42	
Control Delay		15.7			15.5			17.3			15.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.7			15.5			17.3			15.0	
LOS		B			B			B			B	
Approach Delay		15.7			15.5			17.3			15.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		23			17			54			48	
Queue Length 95th (ft)		89			70			175			154	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2103			1979			888			1050	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.13			0.11			0.34			0.27	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 46.9
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 74.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

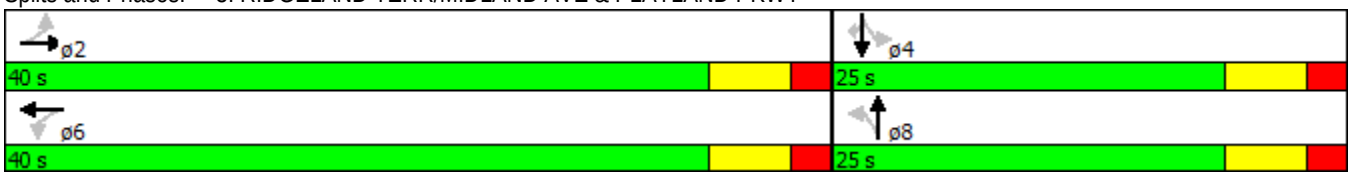
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	125	2	0	145	19	1	3	0	37	2	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.982							0.850
Flt Protected		0.991						0.988			0.954	
Satd. Flow (prot)	0	3240	0	0	3316	0	0	1796	0	0	1824	1639
Flt Permitted		0.895						0.901			0.734	
Satd. Flow (perm)	0	2926	0	0	3316	0	0	1638	0	0	1403	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			21							50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	31	137	2	0	159	21	1	3	0	41	2	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	180	0	0	4	0	0	43	47
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		27.5			27.5			8.8			10.2	10.2
Actuated g/C Ratio		0.69			0.69			0.22			0.25	0.25
v/c Ratio		0.08			0.08			0.01			0.12	0.10
Control Delay		5.3			4.8			14.0			14.7	6.2
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.3			4.8			14.0			14.7	6.2
LOS		A			A			B			B	A
Approach Delay		5.3			4.8			14.0			10.3	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		10			10			1			8	0
Queue Length 95th (ft)		20			20			7			32	20
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2521			2860			788			675	815
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		0.07			0.06			0.01			0.06	0.06

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 40.1
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.12
Intersection Signal Delay: 6.2 — Intersection LOS: A
Intersection Capacity Utilization 41.8% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

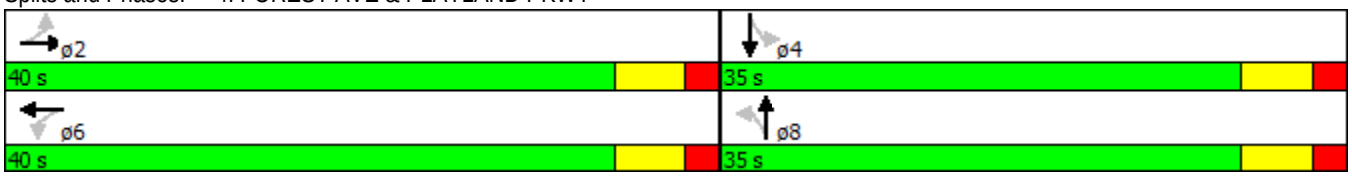


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	63	13	86	4	25	14	66	124	7	10	129	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97			0.99			1.00			0.99	
Frt		0.920			0.950			0.995			0.953	
Flt Protected		0.981			0.996			0.984			0.998	
Satd. Flow (prot)	0	2975	0	0	3035	0	0	1927	0	0	1843	0
Flt Permitted		0.837			0.932			0.829			0.977	
Satd. Flow (perm)	0	2538	0	0	2840	0	0	1623	0	0	1804	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								3			41	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			27			7			3			11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	2%	0%	0%	7%	5%	2%	0%	0%	1%	0%
Adj. Flow (vph)	71	15	97	4	28	16	74	139	8	11	145	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	0	0	48	0	0	221	0	0	238	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			12.5			12.5	
Actuated g/C Ratio		0.39			0.39			0.31			0.31	
v/c Ratio		0.18			0.04			0.44			0.41	
Control Delay		9.7			9.2			14.2			11.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			9.2			14.2			11.4	
LOS		A			A			B			B	
Approach Delay		9.7			9.2			14.2			11.4	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		11			2			37			32	
Queue Length 95th (ft)		39			13			86			79	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2160			2417			1179			1320	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.08			0.02			0.19			0.18	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 40.9	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 52.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



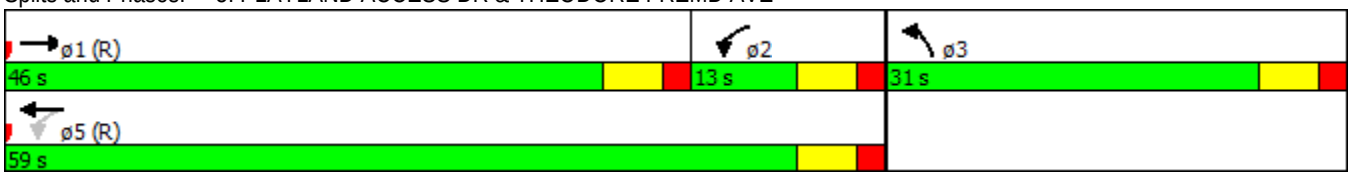
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	193	105	50	186	105	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.952				0.943	
Flt Protected			0.950		0.972	
Satd. Flow (prot)	1763	0	1743	1835	1673	0
Flt Permitted			0.466		0.972	
Satd. Flow (perm)	1763	0	855	1835	1673	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	39					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	1%	4%	2%	2%	4%	3%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	235	128	61	227	128	94
Shared Lane Traffic (%)						
Lane Group Flow (vph)	363	0	61	227	222	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.45		0.11	0.21	0.48	
Control Delay	17.5		8.9	9.3	31.2	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	17.5		8.9	9.3	31.2	
LOS	B		A	A	C	
Approach Delay	17.5			9.2	31.2	
Approach LOS	B			A	C	
Queue Length 50th (ft)	123		14	56	105	
Queue Length 95th (ft)	172		27	82	155	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	805		572	1080	464	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.45		0.11	0.21	0.48	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 18.3 Intersection LOS: B
Intersection Capacity Utilization 45.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	214	33	5	193	31	17	44	15	44	68	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			1.00				0.98
Frt		0.980			0.979			0.974				0.850
Flt Protected	0.950			0.950				0.989			0.981	
Satd. Flow (prot)	1769	1926	0	1668	1776	0	0	1897	0	0	2148	1876
Flt Permitted	0.606			0.593				0.919			0.854	
Satd. Flow (perm)	1129	1926	0	1041	1776	0	0	1763	0	0	1870	1836
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)						1			3			1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	0%	0%	2%	3%	6%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	75	235	36	5	212	34	19	48	16	48	75	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	271	0	5	246	0	0	83	0	0	123	30
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.14	0.30		0.01	0.30			0.15			0.21	0.05
Control Delay	10.6	11.7		9.2	11.7			16.9			17.4	15.8
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.6	11.7		9.2	11.7			16.9			17.4	15.8
LOS	B	B		A	B			B			B	B
Approach Delay		11.4			11.7			16.9			17.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	16	61		1	56			23			35	8
Queue Length 95th (ft)	37	107		6	99			52			71	24
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	529	902		487	832			550			584	573
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.14	0.30		0.01	0.30			0.15			0.21	0.05

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.30
Intersection Signal Delay: 13.1 — Intersection LOS: B
Intersection Capacity Utilization 62.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	21	126	10	200	3	28	18	38	184	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.862			0.920			0.950			0.996	
Flt Protected	0.950				0.982			0.997			0.992	
Satd. Flow (prot)	1877	1760	0	0	1845	0	0	1791	0	0	1829	0
Flt Permitted	0.950				0.982			0.997			0.992	
Satd. Flow (perm)	1877	1760	0	0	1845	0	0	1791	0	0	1829	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Confl. Peds. (#/hr)									2			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	4%	0%	4%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	13	2	24	147	12	233	3	33	21	44	214	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	26	0	0	392	0	0	57	0	0	266	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	2	21	126	10	200	3	28	18	38	184	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	4	0	4	0	0	0	0	2	0
Mvmt Flow	13	2	24	147	12	233	3	33	21	44	214	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	478	366	220	370	360	43	222	0	0	53	0	0
Stage 1	306	306	-	50	50	-	-	-	-	-	-	-
Stage 2	172	60	-	320	310	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.536	4	3.336	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	620	666	866	548	537	1018	1359	-	-	1566	-	-
Stage 1	811	762	-	950	850	-	-	-	-	-	-	-
Stage 2	901	872	-	652	629	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	458	643	865	516	519	1018	1357	-	-	1566	-	-
Mov Capacity-2 Maneuver	458	643	-	516	519	-	-	-	-	-	-	-
Stage 1	809	738	-	948	848	-	-	-	-	-	-	-
Stage 2	684	870	-	610	609	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	15.4	0.5	1.2
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1357	-	-	458	753	731	1566	-	-
HCM Lane V/C Ratio	0.003	-	-	0.019	0.041	0.534	0.028	-	-
HCM Control Delay (s)	7.66	0	-	13	10	15.4	7.366	0	-
HCM Lane LOS	A	A		B	B	C	A	A	
HCM 95th %tile Q(veh)	0.008	-	-	0.057	0.129	3.203	0.087	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	6	195	106	45	234	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.960		0.957	
Flt Protected		0.998			0.967	
Satd. Flow (prot)	0	2014	1903	0	1712	0
Flt Permitted		0.998			0.967	
Satd. Flow (perm)	0	2014	1903	0	1712	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Confl. Peds. (#/hr)				3		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	1%	0%	3%	2%
Adj. Flow (vph)	7	214	116	49	257	119
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	221	165	0	376	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	6	195	106	45	234	108
Conflicting Peds, #/hr	0	0	0	3	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, %	-	-3	3	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	0	3	2
Mvmt Flow	7	214	116	49	257	119

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	166	0	-	0	368	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	227	-
Follow-up Headway	2.2	-	-	-	3.527	3.318
Pot Capacity-1 Maneuver	1424	-	-	-	630	907
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	808	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1424	-	-	-	626	907
Mov Capacity-2 Maneuver	-	-	-	-	626	-
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	16.1
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1424	-	-	-	694
HCM Lane V/C Ratio	0.005	-	-	-	0.542
HCM Control Delay (s)	7.54	0	-	-	16.1
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	0.014	-	-	-	3.274

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	337	92	123	100	14	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.940		0.911	
Flt Protected		0.962			0.983	
Satd. Flow (prot)	0	1887	1914	0	1632	0
Flt Permitted		0.962			0.983	
Satd. Flow (perm)	0	1887	1914	0	1632	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	1%	1%	1%	8%	0%
Adj. Flow (vph)	374	102	137	111	16	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	476	248	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 49.4%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	337	92	123	100	14	28
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, %	-	3	-3	-	3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	1	8	0
Mvmt Flow	374	102	137	111	16	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	248	0	-	0	1043	192
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	851	-
Follow-up Headway	2.218	-	-	-	3.572	3.3
Pot Capacity-1 Maneuver	1318	-	-	-	208	841
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	355	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1318	-	-	-	145	841
Mov Capacity-2 Maneuver	-	-	-	-	145	-
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	248	-

Approach	EB	WB	SB
HCM Control Delay, s	6.9	0	18
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1318	-	-	-	323
HCM Lane V/C Ratio	0.284	-	-	-	0.144
HCM Control Delay (s)	8.812	0	-	-	18
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	1.179	-	-	-	0.499

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	28	29	106	0	0	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Confl. Peds. (#/hr)		8			6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	0%	0%	2%
Adj. Flow (vph)	31	32	116	0	0	214
Shared Lane Traffic (%)						
Lane Group Flow (vph)	31	32	116	0	0	214
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 22.6%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	28	29	106	0	0	195
Conflicting Peds, #/hr	0	8	0	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	31	32	116	0	0	214

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	338	130	0	0	124	0
Stage 1	124	-	-	-	-	-
Stage 2	214	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	538	889	-	-	1475	-
Stage 1	840	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	533	876	-	-	1466	-
Mov Capacity-2 Maneuver	533	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	533	876	1466	-
HCM Lane V/C Ratio	-	-	0.058	0.036	-	-
HCM Control Delay (s)	-	-	12.2	9.3	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.183	0.113	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	358	25	4	281	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.991					
Flt Protected			0.950			
Satd. Flow (prot)	1930	0	1760	1834	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1930	0	1760	1834	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		9				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	377	26	4	296	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	403	0	4	296	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 23.8%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	358	25	4	281	0	0
Conflicting Peds, #/hr	0	9	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	377	26	4	296	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	403	0	694	390
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	304	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1167	-	340	628
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	692	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1167	-	336	628
Mov Capacity-2 Maneuver	-	-	-	-	336	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	684	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1167	-
HCM Lane V/C Ratio	+	-	-	0.004	-
HCM Control Delay (s)	0	-	-	8.096	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.011	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	112	107	31	136	14	96	127	17	16	168	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00						1.00	
Frt		0.937			0.988			0.990			0.986	
Flt Protected		0.993			0.992			0.980			0.996	
Satd. Flow (prot)	0	3137	0	0	3235	0	0	2029	0	0	2059	0
Flt Permitted		0.883			0.863			0.802			0.956	
Satd. Flow (perm)	0	2789	0	0	2814	0	0	1661	0	0	1976	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		119			12			4			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						15						1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	3%	1%	0%	0%	3%	12%	13%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	41	124	119	34	151	16	107	141	19	18	187	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	284	0	0	201	0	0	267	0	0	229	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

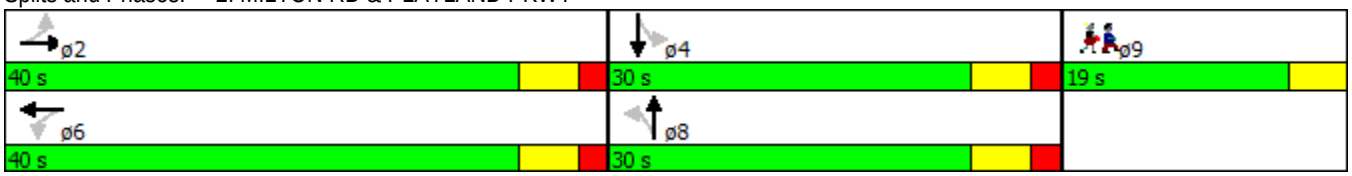
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		15.9			15.9			14.0			14.0	
Actuated g/C Ratio		0.35			0.35			0.31			0.31	
v/c Ratio		0.27			0.20			0.51			0.37	
Control Delay		9.4			13.6			17.3			14.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.4			13.6			17.3			14.5	
LOS		A			B			B			B	
Approach Delay		9.4			13.6			17.3			14.5	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)		12			13			46			37	
Queue Length 95th (ft)		63			64			152			123	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2252			2250			938			1117	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.13			0.09			0.28			0.21	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 45.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 13.6 Intersection LOS: B
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	118	1	0	145	11	1	1	0	32	0	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00							
Frt		0.999			0.990							0.850
Flt Protected		0.991						0.976			0.950	
Satd. Flow (prot)	0	3147	0	0	3367	0	0	1774	0	0	1868	1623
Flt Permitted		0.895						0.822			0.757	
Satd. Flow (perm)	0	2842	0	0	3367	0	0	1494	0	0	1489	1623
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			13							50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Confl. Peds. (#/hr)						5			4			
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	8%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%	3%
Adj. Flow (vph)	31	142	1	0	175	13	1	1	0	39	0	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	188	0	0	2	0	0	39	42
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		28.4			28.4			8.8			10.2	10.2
Actuated g/C Ratio		0.70			0.70			0.22			0.25	0.25
v/c Ratio		0.09			0.08			0.01			0.11	0.10
Control Delay		5.3			4.9			14.0			14.8	5.8
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.3			4.9			14.0			14.8	5.8
LOS		A			A			B			B	A
Approach Delay		5.3			4.9			14.0			10.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		11			11			0			8	0
Queue Length 95th (ft)		19			19			4			27	15
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2413			2860			708			706	796
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		0.07			0.07			0.00			0.06	0.05

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 40.8
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.11
Intersection Signal Delay: 6.0 Intersection LOS: A

Intersection Capacity Utilization 43.3% ICU Level of Service A

Analysis Period (min) 15

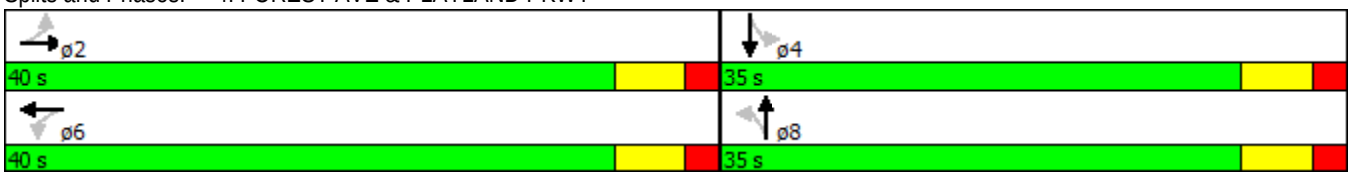
Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	15	75	6	24	14	71	121	2	9	104	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99			1.00			0.99	
Frt		0.925			0.953			0.999			0.953	
Flt Protected		0.980			0.993			0.982			0.997	
Satd. Flow (prot)	0	3018	0	0	2971	0	0	1956	0	0	1832	0
Flt Permitted		0.833			0.916			0.810			0.974	
Satd. Flow (perm)	0	2565	0	0	2740	0	0	1614	0	0	1790	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								1			42	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			18			11			3			4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	7%	0%	0%	0%	14%	1%	2%	0%	0%	1%	2%
Adj. Flow (vph)	71	18	88	7	28	16	84	142	2	11	122	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	0	0	51	0	0	228	0	0	205	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			12.6			12.6	
Actuated g/C Ratio		0.39			0.39			0.31			0.31	
v/c Ratio		0.18			0.05			0.46			0.35	
Control Delay		9.7			9.3			14.6			10.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			9.3			14.6			10.5	
LOS		A			A			B			B	
Approach Delay		9.7			9.3			14.6			10.5	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		11			3			39			26	
Queue Length 95th (ft)		36			13			85			64	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2178			2326			1169			1308	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.08			0.02			0.20			0.16	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 41	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



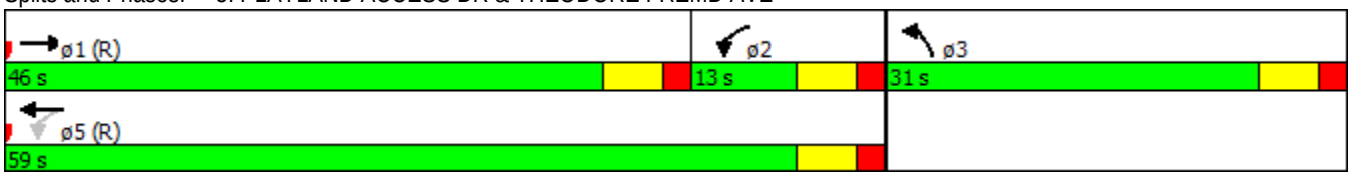
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	126	89	41	131	114	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.944				0.952	
Flt Protected			0.950		0.969	
Satd. Flow (prot)	1751	0	1778	1853	1722	0
Flt Permitted			0.591		0.969	
Satd. Flow (perm)	1751	0	1106	1853	1722	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	51					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	3%	0%	1%	2%	0%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	138	98	45	144	125	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	236	0	45	144	193	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.29		0.06	0.13	0.40	
Control Delay	13.5		8.3	8.6	29.5	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	13.5		8.3	8.6	29.5	
LOS	B		A	A	C	
Approach Delay	13.5			8.6	29.5	
Approach LOS	B			A	C	
Queue Length 50th (ft)	63		10	34	89	
Queue Length 95th (ft)	114		24	60	151	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	806		703	1091	478	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.29		0.06	0.13	0.40	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 40.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	140	24	6	152	20	5	44	9	44	56	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												0.98
Frt		0.978			0.983			0.979				0.850
Flt Protected	0.950			0.950				0.996			0.979	
Satd. Flow (prot)	1787	1922	0	1668	1800	0	0	1956	0	0	2113	1876
Flt Permitted	0.639			0.644				0.978			0.848	
Satd. Flow (perm)	1202	1922	0	1131	1800	0	0	1921	0	0	1830	1836
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		18										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)												1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	1%	5%	0%	0%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	54	154	26	7	167	22	5	48	10	48	62	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	180	0	7	189	0	0	63	0	0	110	35
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.10	0.20		0.01	0.22			0.10			0.19	0.06
Control Delay	10.1	9.6		9.3	11.0			16.3			17.3	2.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.1	9.6		9.3	11.0			16.3			17.3	2.0
LOS	B	A		A	B			B			B	A
Approach Delay		9.7			10.9			16.3			13.6	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	11	34		1	41			17			31	0
Queue Length 95th (ft)	29	67		7	77			41			64	8
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	563	910		530	843			600			571	620
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.10	0.20		0.01	0.22			0.10			0.19	0.06

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.22
Intersection Signal Delay: 11.6 — Intersection LOS: B
Intersection Capacity Utilization 42.1% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	1	3	127	1	196	3	18	14	26	150	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.887			0.918			0.945			0.999	
Flt Protected	0.950				0.981			0.996			0.993	
Satd. Flow (prot)	1877	1811	0	0	1891	0	0	1779	0	0	1850	0
Flt Permitted	0.950				0.981			0.996			0.993	
Satd. Flow (perm)	1877	1811	0	0	1891	0	0	1779	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Confl. Peds. (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	7	1	3	132	1	204	3	19	15	27	156	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	4	0	0	337	0	0	37	0	0	185	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	1	3	127	1	196	3	18	14	26	150	2
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	1	0	1	0	0	0	0	1	0
Mvmt Flow	7	1	3	132	1	204	3	19	15	27	156	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	347	252	158	247	246	26	159	0	0	33	0	0
Stage 1	212	212	-	32	32	-	-	-	-	-	-	-
Stage 2	135	40	-	215	214	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.509	4	3.309	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	713	732	925	680	633	1050	1433	-	-	1592	-	-
Stage 1	873	803	-	982	868	-	-	-	-	-	-	-
Stage 2	927	881	-	762	704	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	564	716	924	666	619	1050	1433	-	-	1592	-	-
Mov Capacity-2 Maneuver	564	716	-	666	619	-	-	-	-	-	-	-
Stage 1	870	787	-	980	866	-	-	-	-	-	-	-
Stage 2	744	879	-	744	690	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	11.9	0.6	1.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1433	-	-	564	721	855	1592	-	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.009	0.395	0.017	-	-
HCM Control Delay (s)	7.518	0	-	11.4	10	11.9	7.3	0	-
HCM Lane LOS	A	A		B	B	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.026	0.028	1.901	0.052	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	3	137	83	39	178	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.957		0.950	
Flt Protected		0.999			0.970	
Satd. Flow (prot)	0	2015	1910	0	1729	0
Flt Permitted		0.999			0.970	
Satd. Flow (perm)	0	2015	1910	0	1729	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Confl. Peds. (#/hr)				2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	3	156	94	44	202	120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	159	138	0	322	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	6.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	3	137	83	39	178	106
Conflicting Peds, #/hr	0	0	0	2	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, %	-	-3	3	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	0	2	0
Mvmt Flow	3	156	94	44	202	120

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	139	0	-	0	279	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	163	-
Follow-up Headway	2.2	-	-	-	3.518	3.3
Pot Capacity-1 Maneuver	1457	-	-	-	711	942
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	866	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1457	-	-	-	710	942
Mov Capacity-2 Maneuver	-	-	-	-	710	-
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	864	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.8
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1457	-	-	-	782
HCM Lane V/C Ratio	0.002	-	-	-	0.413
HCM Control Delay (s)	7.477	0	-	-	12.8
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.007	-	-	-	2.036

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	233	82	100	85	8	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.938		0.901	
Flt Protected		0.964			0.987	
Satd. Flow (prot)	0	1883	1921	0	1664	0
Flt Permitted		0.964			0.987	
Satd. Flow (perm)	0	1883	1921	0	1664	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	3%	0%	0%	1%	0%	0%
Adj. Flow (vph)	288	101	123	105	10	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	389	228	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 41.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	233	82	100	85	8	22
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, %	-	3	-3	-	3	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	3	0	0	1	0	0
Mvmt Flow	288	101	123	105	10	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	228	0	-	0	853	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	677	-
Follow-up Headway	2.227	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	1334	-	-	-	288	860
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	454	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1334	-	-	-	222	860
Mov Capacity-2 Maneuver	-	-	-	-	222	-
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	350	-

Approach	EB	WB	SB
HCM Control Delay, s	6.2	0	13
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1334	-	-	-	487
HCM Lane V/C Ratio	0.216	-	-	-	0.076
HCM Control Delay (s)	8.439	0	-	-	13
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.82	-	-	-	0.246

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	21	24	90	0	0	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	2047	0	0	1987
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	2047	0	0	1987
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Confl. Peds. (#/hr)		2			2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	24	27	102	0	0	186
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	27	102	0	0	186
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 19.3%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	21	24	90	0	0	164
Conflicting Peds, #/hr	0	2	0	0	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	24	27	102	0	0	186

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	290	106	0	0	104	0
Stage 1	104	-	-	-	-	-
Stage 2	186	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	590	923	-	-	1500	-
Stage 1	868	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	589	919	-	-	1497	-
Mov Capacity-2 Maneuver	589	-	-	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	759	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	589	919	1497	-
HCM Lane V/C Ratio	-	-	0.041	0.03	-	-
HCM Control Delay (s)	-	-	11.4	9	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.126	0.092	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	273	28	4	236	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.987					
Flt Protected			0.950			
Satd. Flow (prot)	1922	0	1760	1853	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1922	0	1760	1853	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		14				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	310	32	5	268	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	342	0	5	268	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 19.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	273	28	4	236	0	0
Conflicting Peds, #/hr	0	14	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	310	32	5	268	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	342	0	603	326
Stage 1	-	-	-	-	326	-
Stage 2	-	-	-	-	277	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1228	-	394	688
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	717	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1228	-	388	688
Mov Capacity-2 Maneuver	-	-	-	-	388	-
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	706	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1228	-
HCM Lane V/C Ratio	+	-	-	0.004	-
HCM Control Delay (s)	0	-	-	7.942	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.011	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	358	137	35	296	22	126	115	15	46	210	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.991			0.992			0.989	
Flt Protected		0.997			0.995			0.976			0.992	
Satd. Flow (prot)	0	3181	0	0	3241	0	0	2034	0	0	2057	0
Flt Permitted		0.916			0.853			0.700			0.903	
Satd. Flow (perm)	0	2922	0	0	2778	0	0	1459	0	0	1872	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			9			3			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	29	389	149	38	322	24	137	125	16	50	228	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	567	0	0	384	0	0	278	0	0	303	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

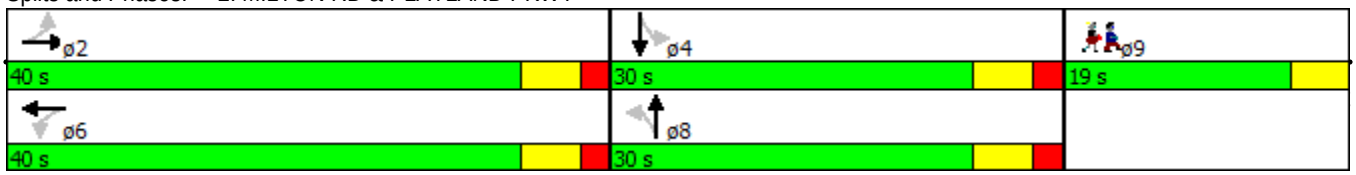
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		17.0			17.0			18.1			18.1	
Actuated g/C Ratio		0.34			0.34			0.36			0.36	
v/c Ratio		0.55			0.41			0.53			0.45	
Control Delay		16.1			16.1			18.8			16.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.1			16.1			18.8			16.3	
LOS		B			B			B			B	
Approach Delay		16.1			16.1			18.8			16.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		52			37			49			52	
Queue Length 95th (ft)		163			118			194			194	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2118			1999			741			952	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.19			0.38			0.32	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 50.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 16.7 — Intersection LOS: B
Intersection Capacity Utilization 75.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

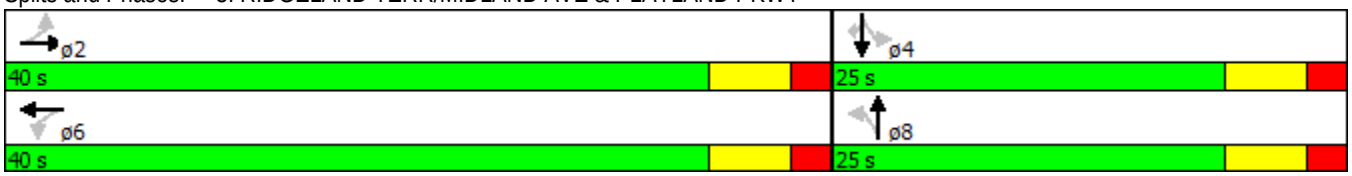
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	384	3	0	296	31	6	2	2	49	3	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.986			0.975				0.850
Flt Protected		0.996						0.969			0.955	
Satd. Flow (prot)	0	3221	0	0	3322	0	0	1684	0	0	1841	1639
Flt Permitted		0.910						0.774			0.730	
Satd. Flow (perm)	0	2943	0	0	3322	0	0	1345	0	0	1407	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			26			2				55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	417	3	0	322	34	7	2	2	53	3	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	455	0	0	356	0	0	11	0	0	56	55
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.4			26.4			8.9			10.2	10.2
Actuated g/C Ratio		0.67			0.67			0.23			0.26	0.26
v/c Ratio		0.23			0.16			0.04			0.15	0.12
Control Delay		5.8			5.1			12.9			14.5	6.3
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.8			5.1			12.9			14.5	6.3
LOS		A			A			B			B	A
Approach Delay		5.8			5.1			12.9			10.5	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		31			21			1			9	0
Queue Length 95th (ft)		51			36			12			38	22
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2593			2930			663			692	835
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		0.18			0.12			0.02			0.08	0.07

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 39.2	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.23	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



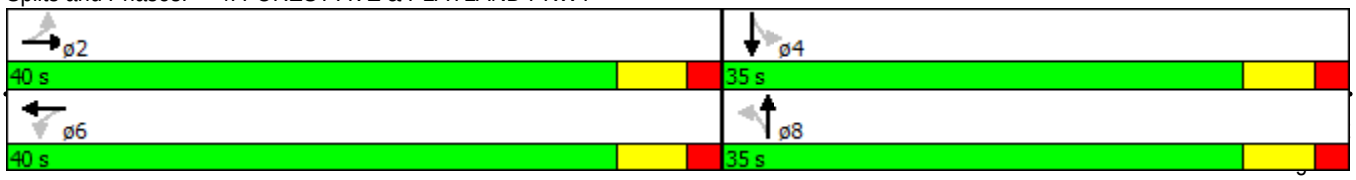
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	95	219	121	33	157	37	114	155	25	22	192	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.976			0.989			0.972	
Flt Protected		0.989			0.993			0.981			0.996	
Satd. Flow (prot)	0	3177	0	0	3153	0	0	1928	0	0	1863	0
Flt Permitted		0.815			0.844			0.779			0.949	
Satd. Flow (perm)	0	2618	0	0	2680	0	0	1531	0	0	1776	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											20	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	238	132	36	171	40	124	168	27	24	209	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	0	0	247	0	0	319	0	0	294	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			14.9			14.9	
Actuated g/C Ratio		0.37			0.37			0.34			0.34	
v/c Ratio		0.49			0.25			0.61			0.47	
Control Delay		13.4			11.2			17.1			12.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.4			11.2			17.1			12.9	
LOS		B			B			B			B	
Approach Delay		13.4			11.2			17.1			12.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		42			20			59			47	
Queue Length 95th (ft)		98			51			134			110	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2101			2151			1047			1222	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.23			0.11			0.30			0.24	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 43.2
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 13.8 — Intersection LOS: B
Intersection Capacity Utilization 75.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

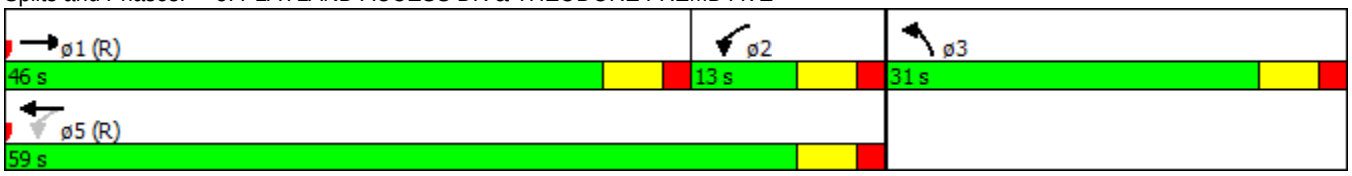


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	205	111	76	210	137	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953				0.937	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1780	0	1743	1835	1692	0
Flt Permitted			0.484		0.974	
Satd. Flow (perm)	1780	0	888	1835	1692	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	39					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	223	121	83	228	149	130
Shared Lane Traffic (%)						
Lane Group Flow (vph)	344	0	83	228	279	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.42		0.14	0.21	0.59	
Control Delay	17.0		9.2	9.3	34.3	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	17.0		9.2	9.3	34.3	
LOS	B		A	A	C	
Approach Delay	17.0			9.3	34.3	
Approach LOS	B			A	C	
Queue Length 50th (ft)	114		19	56	137	
Queue Length 95th (ft)	184		38	92	220	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		589	1080	470	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.42		0.14	0.21	0.59	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 51.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



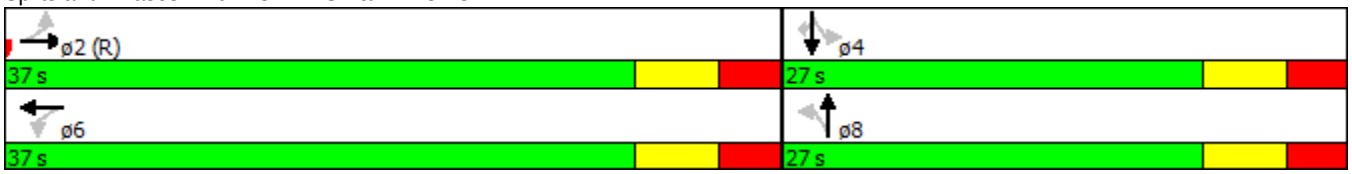
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	133	184	35	11	238	48	12	75	6	35	102	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.975			0.991				0.850
Flt Protected	0.950			0.950				0.994			0.987	
Satd. Flow (prot)	1752	1897	0	1635	1776	0	0	1938	0	0	2136	1839
Flt Permitted	0.569			0.611				0.954			0.900	
Satd. Flow (perm)	1049	1897	0	1052	1776	0	0	1860	0	0	1947	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		20										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	145	200	38	12	259	52	13	82	7	38	111	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	238	0	12	311	0	0	102	0	0	149	60
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.30	0.26		0.02	0.37			0.18			0.25	0.10
Control Delay	12.6	10.4		9.4	12.6			17.1			17.7	4.7
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	12.6	10.4		9.4	12.6			17.1			17.7	4.7
LOS	B	B		A	B			B			B	A
Approach Delay		11.2			12.5			17.1			14.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	33	48		2	73			29			43	0
Queue Length 95th (ft)	69	88		10	126			61			83	20
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	491	899		493	832			581			608	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.30	0.26		0.02	0.37			0.18			0.25	0.10

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.37
Intersection Signal Delay: 12.8 — Intersection LOS: B
Intersection Capacity Utilization 53.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	2	39	122	10	227	6	43	37	47	256	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.857			0.915			0.943			0.994	
Flt Protected	0.950				0.983			0.996			0.993	
Satd. Flow (prot)	1840	1716	0	0	1870	0	0	1741	0	0	1820	0
Flt Permitted	0.950				0.983			0.996			0.993	
Satd. Flow (perm)	1840	1716	0	0	1870	0	0	1741	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	2	42	133	11	247	7	47	40	51	278	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	44	0	0	391	0	0	94	0	0	345	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 58.2%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	29	2	39	122	10	227	6	43	37	47	256	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	2	42	133	11	247	7	47	40	51	278	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	598	489	286	491	477	67	295	0	0	87	0	0
Stage 1	389	389	-	80	80	-	-	-	-	-	-	-
Stage 2	209	100	-	411	397	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	540	596	802	450	450	991	1266	-	-	1509	-	-
Stage 1	755	723	-	916	817	-	-	-	-	-	-	-
Stage 2	870	849	-	577	565	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	384	569	802	410	429	991	1266	-	-	1509	-	-
Mov Capacity-2 Maneuver	384	569	-	410	429	-	-	-	-	-	-	-
Stage 1	750	694	-	911	812	-	-	-	-	-	-	-
Stage 2	641	844	-	523	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	18.4	0.5	1.1
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1266	-	-	384	655	653	1509	-	-
HCM Lane V/C Ratio	0.005	-	-	0.055	0.084	0.598	0.034	-	-
HCM Control Delay (s)	7.858	0	-	14.9	11	18.4	7.469	0	-
HCM Lane LOS	A	A		B	B	C	A	A	
HCM 95th %tile Q(veh)	0.016	-	-	0.173	0.274	3.974	0.105	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	10	190	112	75	322	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.946		0.967	
Flt Protected		0.997			0.964	
Satd. Flow (prot)	0	2011	1851	0	1736	0
Flt Permitted		0.997			0.964	
Satd. Flow (perm)	0	2011	1851	0	1736	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	207	122	82	350	114
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	218	204	0	464	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	12

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	190	112	75	322	105
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	207	122	82	350	114

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	203	0	-	0	391	163
Stage 1	-	-	-	-	163	-
Stage 2	-	-	-	-	228	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1369	-	-	-	613	882
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	810	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1369	-	-	-	607	882
Mov Capacity-2 Maneuver	-	-	-	-	607	-
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	22.6
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1369	-	-	-	657
HCM Lane V/C Ratio	0.008	-	-	-	0.706
HCM Control Delay (s)	7.651	0	-	-	22.6
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	0.024	-	-	-	5.816

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	411	101	145	128	25	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.937		0.915	
Flt Protected		0.961			0.982	
Satd. Flow (prot)	0	1881	1890	0	1649	0
Flt Permitted		0.961			0.982	
Satd. Flow (perm)	0	1881	1890	0	1649	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	447	110	158	139	27	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	557	297	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.5%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	411	101	145	128	25	42
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	447	110	158	139	27	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	297	0	-	0	1230	227
Stage 1	-	-	-	-	227	-
Stage 2	-	-	-	-	1003	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1264	-	-	-	160	797
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	300	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1264	-	-	-	100	797
Mov Capacity-2 Maneuver	-	-	-	-	100	-
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	187	-

Approach	EB	WB	SB
HCM Control Delay, s	7.5	0	29.1
HCM LOS			D

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1264	-	-	-	221
HCM Lane V/C Ratio	0.353	-	-	-	0.33
HCM Control Delay (s)	9.397	0	-	-	29.1
HCM Lane LOS	A	A			D
HCM 95th %tile Q(veh)	1.614	-	-	-	1.373

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	29	23	126	0	0	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	25	137	0	0	265
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	25	137	0	0	265
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	29	23	126	0	0	244
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	25	137	0	0	265

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	402	137	0	0	137	0
Stage 1	137	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	473	874	-	-	1447	-
Stage 1	818	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	473	874	-	-	1447	-
Mov Capacity-2 Maneuver	473	-	-	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	663	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	473	874	1447	-
HCM Lane V/C Ratio	-	-	0.067	0.029	-	-
HCM Control Delay (s)	-	-	13.2	9.2	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.213	0.088	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	263	46	5	332	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980					
Flt Protected			0.950			
Satd. Flow (prot)	1871	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1871	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	286	50	5	361	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	336	0	5	361	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	263	46	5	332	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	286	50	5	361	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	336	0	683	311
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	372	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1223	-	343	698
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	629	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1223	-	342	698
Mov Capacity-2 Maneuver	-	-	-	-	342	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	626	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1223	-
HCM Lane V/C Ratio	+	-	-	0.004	-
HCM Control Delay (s)	0	-	-	7.957	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.013	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

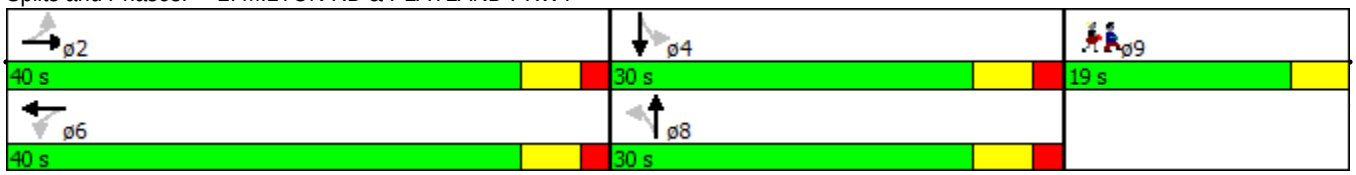
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	497	114	24	168	23	99	127	41	26	136	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.984			0.979			0.985	
Flt Protected		0.999			0.994			0.982			0.993	
Satd. Flow (prot)	0	3227	0	0	3215	0	0	2019	0	0	2050	0
Flt Permitted		0.944			0.848			0.825			0.925	
Satd. Flow (perm)	0	3049	0	0	2743	0	0	1697	0	0	1910	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			17			10			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	17	540	124	26	183	25	108	138	45	28	148	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	681	0	0	234	0	0	291	0	0	198	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		18.5			18.5			15.0			15.0	
Actuated g/C Ratio		0.38			0.38			0.31			0.31	
v/c Ratio		0.58			0.22			0.55			0.33	
Control Delay		15.5			12.3			20.1			16.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.5			12.3			20.1			16.5	
LOS		B			B			C			B	
Approach Delay		15.5			12.3			20.1			16.5	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		58			16			49			31	
Queue Length 95th (ft)		206			70			208			137	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2332			2095			917			1031	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.29			0.11			0.32			0.19	

Intersection Summary	
Area Type: Other	
Cycle Length: 89	
Actuated Cycle Length: 48.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

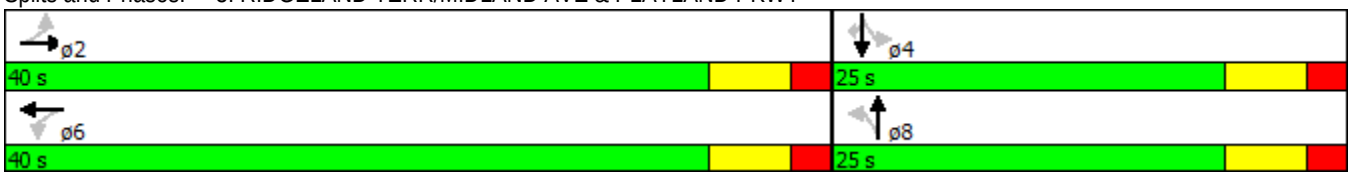
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	538	0	3	168	18	6	0	1	44	3	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985			0.983				0.850
Flt Protected		0.998			0.999			0.958			0.955	
Satd. Flow (prot)	0	3231	0	0	3315	0	0	1678	0	0	1841	1639
Flt Permitted		0.936			0.947			0.716			0.733	
Satd. Flow (perm)	0	3030	0	0	3143	0	0	1254	0	0	1413	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20			50				50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	585	0	3	183	20	7	0	1	48	3	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	613	0	0	206	0	0	8	0	0	51	45
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.9			26.9			8.8			10.2	10.2
Actuated g/C Ratio		0.68			0.68			0.22			0.26	0.26
v/c Ratio		0.30			0.10			0.03			0.14	0.10
Control Delay		6.0			4.9			0.1			14.6	6.0
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.0			4.9			0.1			14.6	6.0
LOS		A			A			A			B	A
Approach Delay		6.0			4.9			0.1			10.6	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)		44			11			0			8	0
Queue Length 95th (ft)		70			22			0			36	19
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2644			2745			637			688	824
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		0.23			0.08			0.01			0.07	0.05

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 39.6	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 51.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



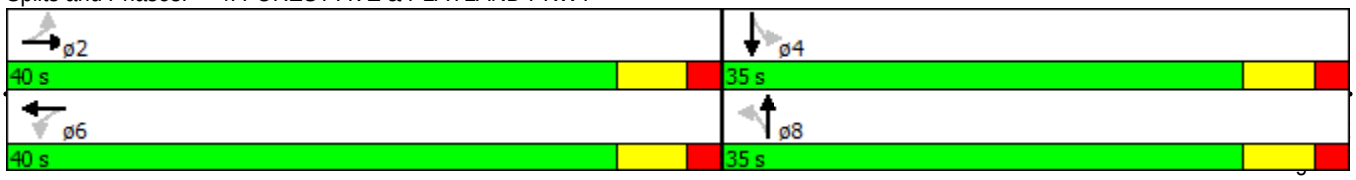
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	440	72	10	84	13	64	113	15	21	108	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.982			0.990			0.967	
Flt Protected		0.994			0.995			0.984			0.994	
Satd. Flow (prot)	0	3273	0	0	3179	0	0	1936	0	0	1850	0
Flt Permitted		0.900			0.889			0.830			0.928	
Satd. Flow (perm)	0	2963	0	0	2840	0	0	1633	0	0	1727	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											25	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	478	78	11	91	14	70	123	16	23	117	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	633	0	0	116	0	0	209	0	0	185	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		19.4			19.4			13.1			13.1	
Actuated g/C Ratio		0.51			0.51			0.35			0.35	
v/c Ratio		0.42			0.08			0.37			0.30	
Control Delay		10.7			9.2			13.1			10.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.7			9.2			13.1			10.8	
LOS		B			A			B			B	
Approach Delay		10.7			9.2			13.1			10.8	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		47			7			35			26	
Queue Length 95th (ft)		130			26			84			67	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2567			2460			1254			1333	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.25			0.05			0.17			0.14	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 37.8
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 11.0 — Intersection LOS: B
Intersection Capacity Utilization 51.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

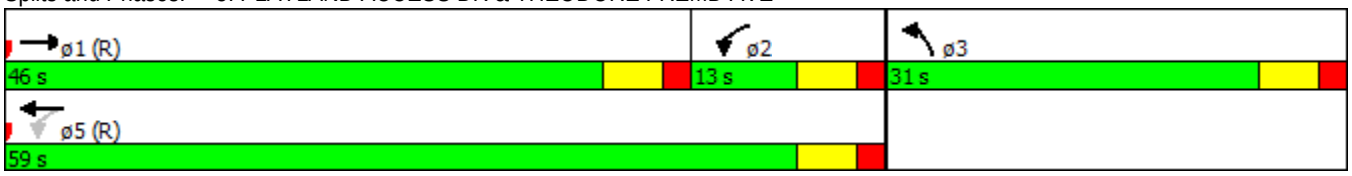


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	153	89	54	164	89	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.950				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1775	0	1743	1835	1693	0
Flt Permitted			0.564		0.974	
Satd. Flow (perm)	1775	0	1035	1835	1693	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	42					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	166	97	59	178	97	82
Shared Lane Traffic (%)						
Lane Group Flow (vph)	263	0	59	178	179	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.32		0.09	0.16	0.38	
Control Delay	14.8		8.6	8.9	29.2	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	14.8		8.6	8.9	29.2	
LOS	B		A	A	C	
Approach Delay	14.8			8.8	29.2	
Approach LOS	B			A	C	
Queue Length 50th (ft)	77		13	42	82	
Queue Length 95th (ft)	134		29	73	141	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		664	1080	470	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.32		0.09	0.16	0.38	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 41.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	174	26	7	165	25	13	35	6	32	46	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.980			0.984				0.850
Flt Protected	0.950			0.950				0.988			0.980	
Satd. Flow (prot)	1752	1907	0	1635	1786	0	0	1912	0	0	2121	1839
Flt Permitted	0.629			0.622				0.930			0.868	
Satd. Flow (perm)	1160	1907	0	1071	1786	0	0	1800	0	0	1878	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		16										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	63	189	28	8	179	27	14	38	7	35	50	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	217	0	8	206	0	0	59	0	0	85	61
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.12	0.24		0.02	0.25			0.10			0.15	0.10
Control Delay	10.3	10.3		9.3	11.2			16.4			16.7	4.8
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.3	10.3		9.3	11.2			16.4			16.7	4.8
LOS	B	B		A	B			B			B	A
Approach Delay		10.3			11.1			16.4			11.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	13	44		2	45			16			23	0
Queue Length 95th (ft)	32	81		8	83			40			52	20
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	543	902		502	837			562			586	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.12	0.24		0.02	0.25			0.10			0.15	0.10

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.25
Intersection Signal Delay: 11.4 — Intersection LOS: B
Intersection Capacity Utilization 41.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	16	113	5	182	3	28	16	29	148	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.866			0.918			0.954			0.993	
Flt Protected	0.950				0.981			0.997			0.992	
Satd. Flow (prot)	1840	1734	0	0	1873	0	0	1763	0	0	1817	0
Flt Permitted	0.950				0.981			0.997			0.992	
Satd. Flow (perm)	1840	1734	0	0	1873	0	0	1763	0	0	1817	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	2	17	123	5	198	3	30	17	32	161	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	19	0	0	326	0	0	50	0	0	204	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 47.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	2	16	113	5	182	3	28	16	29	148	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	2	17	123	5	198	3	30	17	32	161	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	376	283	166	285	281	39	172	0	0	48	0	0
Stage 1	229	229	-	46	46	-	-	-	-	-	-	-
Stage 2	147	54	-	239	235	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	687	710	911	636	599	1029	1405	-	-	1559	-	-
Stage 1	857	791	-	960	850	-	-	-	-	-	-	-
Stage 2	913	871	-	734	683	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	541	692	911	611	584	1029	1405	-	-	1559	-	-
Mov Capacity-2 Maneuver	541	692	-	611	584	-	-	-	-	-	-	-
Stage 1	855	773	-	958	848	-	-	-	-	-	-	-
Stage 2	731	869	-	701	667	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	12.4	0.5	1.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1405	-	-	541	796	810	1559	-	-
HCM Lane V/C Ratio	0.002	-	-	0.015	0.03	0.403	0.02	-	-
HCM Control Delay (s)	7.568	0	-	11.8	9.7	12.4	7.357	0	-
HCM Lane LOS	A	A		B	A	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.045	0.091	1.958	0.062	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	8	173	88	36	183	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.961		0.954	
Flt Protected		0.998			0.968	
Satd. Flow (prot)	0	2013	1881	0	1720	0
Flt Permitted		0.998			0.968	
Satd. Flow (perm)	0	2013	1881	0	1720	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	188	96	39	199	103
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	197	135	0	302	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	6.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	8	173	88	36	183	95
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	188	96	39	199	103

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	135	0	-	0	320	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	205	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1449	-	-	-	673	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	829	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1449	-	-	-	668	937
Mov Capacity-2 Maneuver	-	-	-	-	668	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13.2
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1449	-	-	-	741
HCM Lane V/C Ratio	0.006	-	-	-	0.408
HCM Control Delay (s)	7.499	0	-	-	13.2
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.018	-	-	-	1.993

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	280	76	99	73	20	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.943		0.926	
Flt Protected		0.962			0.978	
Satd. Flow (prot)	0	1883	1902	0	1662	0
Flt Permitted		0.962			0.978	
Satd. Flow (perm)	0	1883	1902	0	1662	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	304	83	108	79	22	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	387	187	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	280	76	99	73	20	25
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	304	83	108	79	22	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	187	0	-	0	838	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	691	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1387	-	-	-	292	889
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	443	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1387	-	-	-	225	889
Mov Capacity-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	341	-

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	15.7
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1387	-	-	-	385
HCM Lane V/C Ratio	0.219	-	-	-	0.127
HCM Control Delay (s)	8.324	0	-	-	15.7
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	0.838	-	-	-	0.432

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	13	13	96	0	0	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	14	104	0	0	173
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	14	104	0	0	173
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	13	13	96	0	0	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	14	104	0	0	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	277	104	0	0	104	0
Stage 1	104	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	602	921	-	-	1488	-
Stage 1	864	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	602	921	-	-	1488	-
Mov Capacity-2 Maneuver	602	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	771	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	602	921	1488	-
HCM Lane V/C Ratio	-	-	0.023	0.015	-	-
HCM Control Delay (s)	-	-	11.1	9	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.072	0.047	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	231	49	8	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976					
Flt Protected			0.950			
Satd. Flow (prot)	1863	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1863	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	251	53	9	217	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	304	0	9	217	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	231	49	8	200	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	251	53	9	217	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	304	0	513	278
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	235	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1257	-	452	732
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	753	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1257	-	449	732
Mov Capacity-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	748	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	0
HCM LOS			A

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1257	-
HCM Lane V/C Ratio	+	-	-	0.007	-
HCM Control Delay (s)	0	-	-	7.884	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.021	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	486	127	24	404	26	82	119	37	48	131	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.979			0.980	
Flt Protected		0.998			0.997			0.983			0.989	
Satd. Flow (prot)	0	3214	0	0	3247	0	0	2021	0	0	2032	0
Flt Permitted		0.919			0.894			0.819			0.878	
Satd. Flow (perm)	0	2959	0	0	2912	0	0	1684	0	0	1804	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			8			10			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	28	528	138	26	439	28	89	129	40	52	142	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	694	0	0	493	0	0	258	0	0	228	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

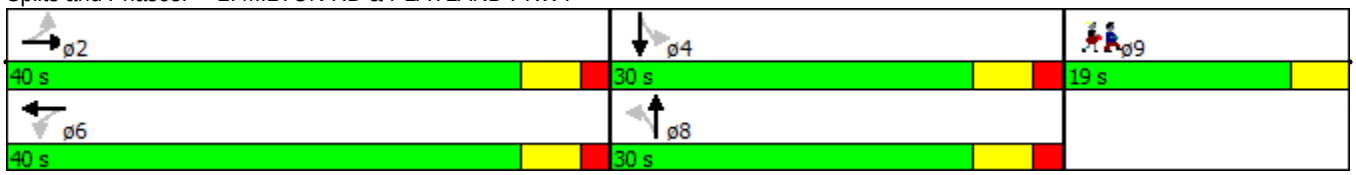
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		18.8			18.8			14.5			14.5	
Actuated g/C Ratio		0.39			0.39			0.30			0.30	
v/c Ratio		0.60			0.44			0.51			0.42	
Control Delay		15.3			14.0			19.7			17.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.3			14.0			19.7			17.9	
LOS		B			B			B			B	
Approach Delay		15.3			14.0			19.7			17.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		56			39			43			36	
Queue Length 95th (ft)		212			150			187			162	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2291			2247			921			986	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.30			0.22			0.28			0.23	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 48.7
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 16.0 — Intersection LOS: B
Intersection Capacity Utilization 66.7% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

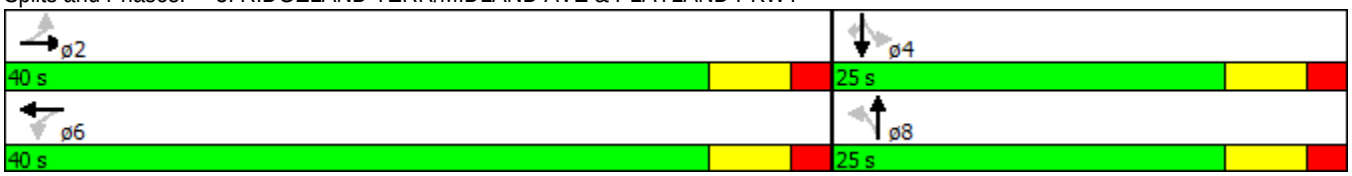
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	548	5	0	398	15	3	2	0	42	4	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.995							0.850
Flt Protected		0.998						0.971			0.956	
Satd. Flow (prot)	0	3227	0	0	3352	0	0	1730	0	0	1843	1639
Flt Permitted		0.935						0.787			0.740	
Satd. Flow (perm)	0	3024	0	0	3352	0	0	1402	0	0	1427	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			8							58
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	596	5	0	433	16	3	2	0	46	4	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	621	0	0	449	0	0	5	0	0	50	58
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.4			26.4			8.9			10.2	10.2
Actuated g/C Ratio		0.67			0.67			0.23			0.26	0.26
v/c Ratio		0.30			0.20			0.02			0.14	0.12
Control Delay		6.1			5.5			13.8			14.4	6.2
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.1			5.5			13.8			14.4	6.2
LOS		A			A			B			B	A
Approach Delay		6.1			5.5			13.8			10.0	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		45			30			1			8	0
Queue Length 95th (ft)		71			48			8			35	23
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2665			2955			690			702	836
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		0.23			0.15			0.01			0.07	0.07

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 39.2	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 46.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



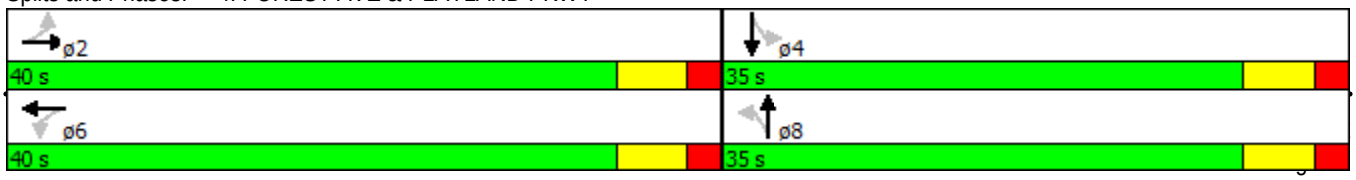
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	78	437	75	10	310	28	56	133	18	21	146	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.988			0.988			0.970	
Flt Protected		0.993			0.999			0.987			0.995	
Satd. Flow (prot)	0	3266	0	0	3211	0	0	1938	0	0	1858	0
Flt Permitted		0.838			0.929			0.855			0.947	
Satd. Flow (perm)	0	2756	0	0	2986	0	0	1678	0	0	1768	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											22	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	475	82	11	337	30	61	145	20	23	159	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	642	0	0	378	0	0	226	0	0	233	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.5			16.5			12.8			12.8	
Actuated g/C Ratio		0.40			0.40			0.31			0.31	
v/c Ratio		0.59			0.32			0.44			0.42	
Control Delay		13.3			10.3			14.5			12.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.3			10.3			14.5			12.8	
LOS		B			B			B			B	
Approach Delay		13.3			10.3			14.5			12.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		50			25			38			35	
Queue Length 95th (ft)		136			74			96			91	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2317			2510			1203			1274	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.28			0.15			0.19			0.18	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 41.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 12.6 — Intersection LOS: B
Intersection Capacity Utilization 67.4% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

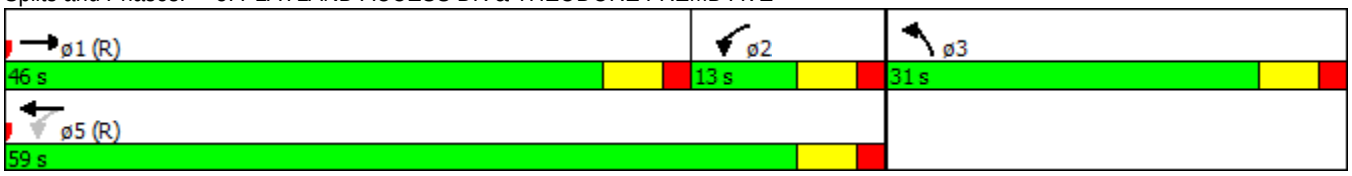


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	133	76	46	136	82	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.951				0.949	
Flt Protected			0.950		0.970	
Satd. Flow (prot)	1776	0	1743	1835	1706	0
Flt Permitted			0.599		0.970	
Satd. Flow (perm)	1776	0	1099	1835	1706	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	41					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	145	83	50	148	89	54
Shared Lane Traffic (%)						
Lane Group Flow (vph)	228	0	50	148	143	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.28		0.07	0.14	0.30	
Control Delay	14.0		8.4	8.7	27.8	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	14.0		8.4	8.7	27.8	
LOS	B		A	A	C	
Approach Delay	14.0			8.6	27.8	
Approach LOS	B			A	C	
Queue Length 50th (ft)	64		11	35	64	
Queue Length 95th (ft)	114		26	62	114	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		697	1080	473	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.28		0.07	0.14	0.30	

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 37.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	131	14	3	151	18	16	37	7	35	63	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.984			0.983				0.850
Flt Protected	0.950			0.950				0.987			0.982	
Satd. Flow (prot)	1752	1916	0	1635	1793	0	0	1908	0	0	2125	1839
Flt Permitted	0.641			0.657				0.916			0.878	
Satd. Flow (perm)	1182	1916	0	1131	1793	0	0	1771	0	0	1900	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		11										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	51	142	15	3	164	20	17	40	8	38	68	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	157	0	3	184	0	0	65	0	0	106	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.09	0.17		0.01	0.22			0.12			0.18	0.06
Control Delay	10.1	9.8		9.3	10.9			16.5			17.1	2.2
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.1	9.8		9.3	10.9			16.5			17.1	2.2
LOS	B	A		A	B			B			B	A
Approach Delay		9.8			10.9			16.5			13.2	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	10	31		1	40			18			30	0
Queue Length 95th (ft)	27	61		4	75			43			62	9
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	554	903		530	840			553			593	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.09	0.17		0.01	0.22			0.12			0.18	0.06

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.22
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 39.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	0	9	122	4	150	3	36	25	20	147	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.927			0.947			0.998	
Flt Protected	0.950				0.978			0.998			0.994	
Satd. Flow (prot)	1840	1702	0	0	1885	0	0	1752	0	0	1829	0
Flt Permitted	0.950				0.978			0.998			0.994	
Satd. Flow (perm)	1840	1702	0	0	1885	0	0	1752	0	0	1829	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	0	10	133	4	163	3	39	27	22	160	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	10	0	0	300	0	0	69	0	0	185	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 44.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	0	9	122	4	150	3	36	25	20	147	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	10	133	4	163	3	39	27	22	160	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	348	278	161	269	266	53	163	0	0	66	0	0
Stage 1	205	205	-	59	59	-	-	-	-	-	-	-
Stage 2	143	73	-	210	207	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	708	713	916	654	612	1010	1416	-	-	1536	-	-
Stage 1	873	802	-	943	837	-	-	-	-	-	-	-
Stage 2	916	862	-	765	706	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	582	700	916	638	601	1010	1416	-	-	1536	-	-
Mov Capacity-2 Maneuver	582	700	-	638	601	-	-	-	-	-	-	-
Stage 1	871	789	-	941	835	-	-	-	-	-	-	-
Stage 2	763	860	-	745	695	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	12.2	0.4	0.9
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1416	-	-	582	819	797	1536	-	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.015	0.376	0.014	-	-
HCM Control Delay (s)	7.548	0	-	11.2	9.5	12.2	7.377	0	-
HCM Lane LOS	A	A		B	A	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.026	0.046	1.761	0.043	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	8	146	84	56	183	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.946		0.951	
Flt Protected		0.997			0.969	
Satd. Flow (prot)	0	2011	1851	0	1717	0
Flt Permitted		0.997			0.969	
Satd. Flow (perm)	0	2011	1851	0	1717	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	159	91	61	199	114
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	168	152	0	313	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	8	146	84	56	183	105
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	159	91	61	199	114

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	152	0	-	0	298	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	176	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1429	-	-	-	693	929
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	855	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1429	-	-	-	688	929
Mov Capacity-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	849	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1429	-	-	-	760
HCM Lane V/C Ratio	0.006	-	-	-	0.412
HCM Control Delay (s)	7.535	0	-	-	13
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.018	-	-	-	2.028

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	253	76	103	69	11	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.946		0.896	
Flt Protected		0.963			0.989	
Satd. Flow (prot)	0	1885	1908	0	1626	0
Flt Permitted		0.963			0.989	
Satd. Flow (perm)	0	1885	1908	0	1626	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	275	83	112	75	12	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	358	187	0	52	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	253	76	103	69	11	37
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	275	83	112	75	12	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	187	0	-	0	782	149
Stage 1	-	-	-	-	149	-
Stage 2	-	-	-	-	633	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1387	-	-	-	319	887
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	476	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1387	-	-	-	253	887
Mov Capacity-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	377	-

Approach	EB	WB	SB
HCM Control Delay, s	6.3	0	12
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1387	-	-	-	563
HCM Lane V/C Ratio	0.198	-	-	-	0.093
HCM Control Delay (s)	8.236	0	-	-	12
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.738	-	-	-	0.305

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	25	23	87	0	0	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	25	95	0	0	160
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	25	95	0	0	160
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	25	23	87	0	0	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	25	95	0	0	160

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	255	95	0	0	95	0
Stage 1	95	-	-	-	-	-
Stage 2	160	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	628	934	-	-	1499	-
Stage 1	876	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	628	934	-	-	1499	-
Mov Capacity-2 Maneuver	628	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	788	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	628	934	1499	-
HCM Lane V/C Ratio	-	-	0.043	0.027	-	-
HCM Control Delay (s)	-	-	11	9	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.135	0.082	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	252	42	3	227	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.981					
Flt Protected			0.950			
Satd. Flow (prot)	1873	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1873	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	46	3	247	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	320	0	3	247	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	252	42	3	227	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	274	46	3	247	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	320	0	550	297
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	253	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1240	-	426	712
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	736	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1240	-	425	712
Mov Capacity-2 Maneuver	-	-	-	-	425	-
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	734	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1240	-
HCM Lane V/C Ratio	+	-	-	0.003	-
HCM Control Delay (s)	0	-	-	7.911	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.008	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	142	106	37	199	15	109	133	23	21	180	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00						1.00	
Frt		0.944			0.991			0.988			0.980	
Flt Protected		0.994			0.993			0.980			0.995	
Satd. Flow (prot)	0	3166	0	0	3166	0	0	2047	0	0	2056	0
Flt Permitted		0.882			0.863			0.779			0.947	
Satd. Flow (perm)	0	2809	0	0	2751	0	0	1628	0	0	1956	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		114			8			5			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						7						2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	1%	3%	4%	7%	2%	1%	0%	5%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	38	153	114	40	214	16	117	143	25	23	194	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	305	0	0	270	0	0	285	0	0	254	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

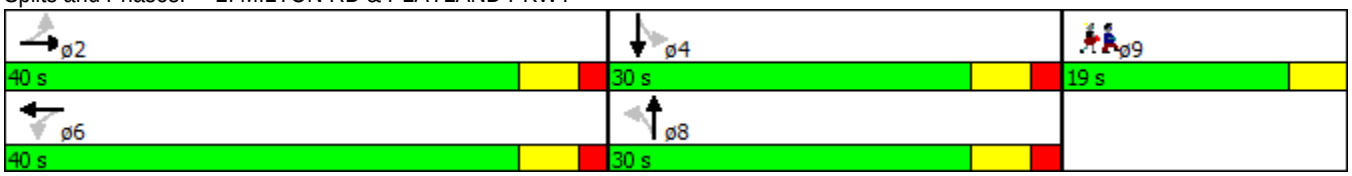
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		15.8			15.8			15.2			15.2	
Actuated g/C Ratio		0.34			0.34			0.33			0.33	
v/c Ratio		0.29			0.28			0.53			0.39	
Control Delay		10.3			14.9			17.4			14.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			14.9			17.4			14.3	
LOS		B			B			B			B	
Approach Delay		10.3			14.9			17.4			14.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		15			21			49			41	
Queue Length 95th (ft)		71			86			163			135	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2207			2138			894			1076	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.14			0.13			0.32			0.24	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 46.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 14.1 Intersection LOS: B
Intersection Capacity Utilization 72.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	141	4	0	180	18	5	2	0	29	1	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00							0.99
Frt		0.997			0.986							0.850
Flt Protected		0.989						0.964			0.954	
Satd. Flow (prot)	0	3230	0	0	3237	0	0	1752	0	0	1876	1639
Flt Permitted		0.862						0.757			0.727	
Satd. Flow (perm)	0	2815	0	0	3237	0	0	1376	0	0	1430	1616
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			21							78
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%	0%	5%	0%	0%	0%	0%	0%	0%	2%
Adj. Flow (vph)	48	166	5	0	212	21	6	2	0	34	1	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	219	0	0	233	0	0	8	0	0	35	78
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.4			26.4			8.9			10.2	10.2
Actuated g/C Ratio		0.67			0.67			0.23			0.26	0.26
v/c Ratio		0.12			0.11			0.03			0.09	0.16
Control Delay		5.4			5.0			13.7			14.1	5.8
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.4			5.0			13.7			14.1	5.8
LOS		A			A			B			B	A
Approach Delay		5.4			5.0			13.7			8.4	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		13			13			1			5	0
Queue Length 95th (ft)		24			23			10			25	23
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2481			2855			677			704	835
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		0.09			0.08			0.01			0.05	0.09

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 39.2
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.16
Intersection Signal Delay: 5.9 Intersection LOS: A

Intersection Capacity Utilization 49.0% ICU Level of Service A

Analysis Period (min) 15

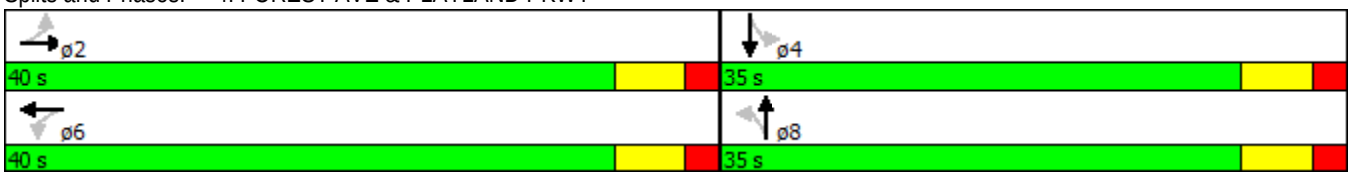
Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	87	10	73	4	34	14	83	156	0	5	119	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99						0.99	
Frt		0.936			0.960						0.946	
Flt Protected		0.975			0.996			0.983			0.999	
Satd. Flow (prot)	0	3036	0	0	3080	0	0	1959	0	0	1773	0
Flt Permitted		0.788			0.931			0.820			0.988	
Satd. Flow (perm)	0	2453	0	0	2879	0	0	1634	0	0	1753	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)											52	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			9			6						7
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	11%	2%	0%	0%	8%	3%	1%	0%	0%	2%	7%
Adj. Flow (vph)	105	12	88	5	41	17	100	188	0	6	143	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	205	0	0	63	0	0	288	0	0	248	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			13.5			13.5	
Actuated g/C Ratio		0.39			0.39			0.32			0.32	
v/c Ratio		0.22			0.06			0.55			0.41	
Control Delay		10.5			9.7			15.9			10.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.5			9.7			15.9			10.8	
LOS		B			A			B			B	
Approach Delay		10.5			9.7			15.9			10.8	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		14			4			51			32	
Queue Length 95th (ft)		40			15			105			73	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2036			2390			1157			1256	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.10			0.03			0.25			0.20	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 41.8	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



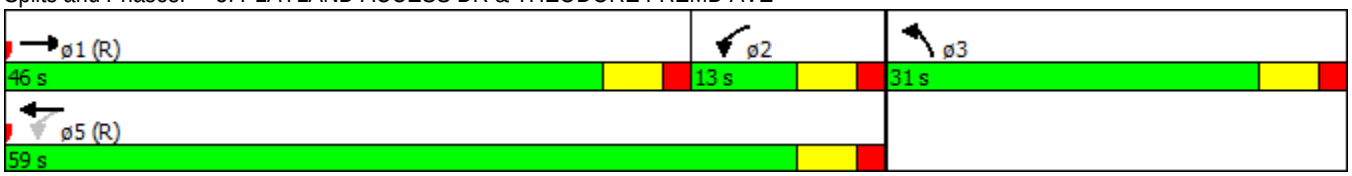
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	212	119	55	211	159	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.951				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1741	0	1778	1835	1684	0
Flt Permitted			0.473		0.974	
Satd. Flow (perm)	1741	0	885	1835	1684	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	40					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	2%	0%	2%	3%	2%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	228	128	59	227	171	146
Shared Lane Traffic (%)						
Lane Group Flow (vph)	356	0	59	227	317	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.45		0.10	0.21	0.68	
Control Delay	17.4		8.8	9.3	37.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	17.4		8.8	9.3	37.4	
LOS	B		A	A	D	
Approach Delay	17.4			9.2	37.4	
Approach LOS	B			A	D	
Queue Length 50th (ft)	120		13	56	160	
Queue Length 95th (ft)	193		29	92	253	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	796		590	1080	467	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.45		0.10	0.21	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 21.6 Intersection LOS: C
Intersection Capacity Utilization 53.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	133	214	38	23	219	51	15	62	14	42	101	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			1.00				0.98
Frt		0.977			0.972			0.980				0.850
Flt Protected	0.950			0.950				0.992			0.986	
Satd. Flow (prot)	1752	1872	0	1530	1771	0	0	1884	0	0	2115	1876
Flt Permitted	0.588			0.599				0.941			0.886	
Satd. Flow (perm)	1084	1872	0	965	1771	0	0	1787	0	0	1901	1833
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		19										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)						1			2			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	3%	6%	9%	1%	4%	7%	3%	0%	5%	2%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	137	221	39	24	226	53	15	64	14	43	104	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	260	0	24	279	0	0	93	0	0	147	51
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.27	0.29		0.05	0.34			0.17			0.25	0.08
Control Delay	12.2	10.8		9.8	12.2			17.0			17.8	3.8
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	12.2	10.8		9.8	12.2			17.0			17.8	3.8
LOS	B	B		A	B			B			B	A
Approach Delay		11.3			12.0			17.0			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	31	54		5	64			26			42	0
Queue Length 95th (ft)	64	97		16	113			56			82	16
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	508	887		452	830			558			594	619
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.27	0.29		0.05	0.34			0.17			0.25	0.08

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.34
Intersection Signal Delay: 12.6 — Intersection LOS: B
Intersection Capacity Utilization 66.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	9	85	133	21	259	11	33	17	33	299	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.915			0.962			0.996	
Flt Protected	0.950				0.984			0.991			0.995	
Satd. Flow (prot)	1877	1765	0	0	1910	0	0	1802	0	0	1860	0
Flt Permitted	0.950				0.984			0.991			0.995	
Satd. Flow (perm)	1877	1765	0	0	1910	0	0	1802	0	0	1860	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	4%
Adj. Flow (vph)	42	10	93	146	23	285	12	36	19	36	329	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	103	0	0	454	0	0	67	0	0	377	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 58.8%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	13.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	38	9	85	133	21	259	11	33	17	33	299	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	1	0	4
Mvmt Flow	42	10	93	146	23	285	12	36	19	36	329	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	631	486	335	529	483	46	341	0	0	55	0	0
Stage 1	407	407	-	70	70	-	-	-	-	-	-	-
Stage 2	224	79	-	459	413	-	-	-	-	-	-	-
Follow-up Headway	3.5	4.009	3.3	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Capacity-1 Maneuver	525	599	767	424	449	1025	1229	-	-	1556	-	-
Stage 1	749	718	-	934	831	-	-	-	-	-	-	-
Stage 2	865	861	-	543	557	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	353	576	767	357	432	1025	1229	-	-	1556	-	-
Mov Capacity-2 Maneuver	353	576	-	357	432	-	-	-	-	-	-	-
Stage 1	742	697	-	925	823	-	-	-	-	-	-	-
Stage 2	601	852	-	456	541	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	25.7	1.4	0.7
HCM LOS	B	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1229	-	-	353	657	613	1556	-	-
HCM Lane V/C Ratio	0.01	-	-	0.079	0.178	0.74	0.023	-	-
HCM Control Delay (s)	7.958	0	-	16.1	11.7	25.7	7.369	0	-
HCM Lane LOS	A	A		C	B	D	A	A	
HCM 95th %tile Q(veh)	0.03	-	-	0.255	0.645	6.458	0.072	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	189	97	47	393	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.956		0.967	
Flt Protected		0.997			0.964	
Satd. Flow (prot)	0	1977	1896	0	1754	0
Flt Permitted		0.997			0.964	
Satd. Flow (perm)	0	1977	1896	0	1754	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	1%	0%	1%	1%
Adj. Flow (vph)	14	210	108	52	437	141
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	224	160	0	578	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	20.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	189	97	47	393	127
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, %	-	-3	3	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	4	1	0	1	1
Mvmt Flow	14	210	108	52	437	141

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	160	0	-	0	373	134
Stage 1	-	-	-	-	134	-
Stage 2	-	-	-	-	239	-
Follow-up Headway	2.2	-	-	-	3.509	3.309
Pot Capacity-1 Maneuver	1432	-	-	-	630	918
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	803	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1432	-	-	-	623	918
Mov Capacity-2 Maneuver	-	-	-	-	623	-
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	794	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	33.5
HCM LOS			D

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1432	-	-	-	676
HCM Lane V/C Ratio	0.01	-	-	-	0.855
HCM Control Delay (s)	7.54	0	-	-	33.5
HCM Lane LOS	A	A			D
HCM 95th %tile Q(veh)	0.031	-	-	-	9.81

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	451	131	107	129	23	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.926		0.918	
Flt Protected		0.963			0.981	
Satd. Flow (prot)	0	1908	1876	0	1517	0
Flt Permitted		0.963			0.981	
Satd. Flow (perm)	0	1908	1876	0	1517	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Confl. Peds. (#/hr)				1		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	1%	0%	1%	2%	0%	0%
Parking (#/hr)					0	
Adj. Flow (vph)	507	147	120	145	26	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	654	265	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.17	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.9%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	451	131	107	129	23	36
Conflicting Peds, #/hr	0	0	0	1	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, %	-	3	-3	-	3	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	0	1	2	0	0
Mvmt Flow	507	147	120	145	26	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	265	0	-	0	1354	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	1161	-
Follow-up Headway	2.209	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	1305	-	-	-	133	840
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	248	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1305	-	-	-	77	840
Mov Capacity-2 Maneuver	-	-	-	-	77	-
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	143	-

Approach	EB	WB	SB
HCM Control Delay, s	7.4	0	38.2
HCM LOS			E

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1305	-	-	-	173
HCM Lane V/C Ratio	0.388	-	-	-	0.383
HCM Control Delay (s)	9.499	0	-	-	38.2
HCM Lane LOS	A	A			E
HCM 95th %tile Q(veh)	1.869	-	-	-	1.658

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	28	29	155	0	0	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	1987	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	1987	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	3%	0%	0%	2%
Adj. Flow (vph)	29	31	163	0	0	220
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	31	163	0	0	220
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	28	29	155	0	0	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	29	31	163	0	0	220

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	383	163	0	0	163	0
Stage 1	163	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	493	844	-	-	1428	-
Stage 1	788	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	493	844	-	-	1428	-
Mov Capacity-2 Maneuver	493	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	718	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	493	844	1428	-
HCM Lane V/C Ratio	-	-	0.06	0.036	-	-
HCM Control Delay (s)	-	-	12.8	9.4	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.19	0.112	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	257	37	4	290	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.983					
Flt Protected			0.950			
Satd. Flow (prot)	1914	0	1760	1834	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1914	0	1760	1834	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	262	38	4	296	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	300	0	4	296	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	257	37	4	290	0	0
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	262	38	4	296	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	300	0	585	281
Stage 1	-	-	-	-	281	-
Stage 2	-	-	-	-	304	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1273	-	405	733
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	692	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1273	-	403	733
Mov Capacity-2 Maneuver	-	-	-	-	403	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	688	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1273	-
HCM Lane V/C Ratio	+	-	-	0.003	-
HCM Control Delay (s)	0	-	-	7.837	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.01	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

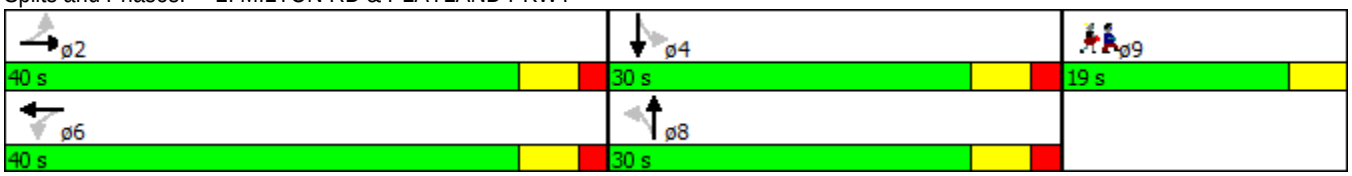
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	118	103	49	119	33	101	171	22	24	201	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					0.99						1.00	
Frt		0.942			0.976			0.990			0.977	
Flt Protected		0.992			0.988			0.983			0.996	
Satd. Flow (prot)	0	3152	0	0	3141	0	0	2054	0	0	2057	0
Flt Permitted		0.863			0.808			0.776			0.948	
Satd. Flow (perm)	0	2742	0	0	2569	0	0	1622	0	0	1958	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								4				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						20						10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	1%	2%	2%	3%	1%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	48	130	113	54	131	36	111	188	24	26	221	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	291	0	0	221	0	0	323	0	0	298	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		15.6			15.6			18.4			18.4	
Actuated g/C Ratio		0.32			0.32			0.37			0.37	
v/c Ratio		0.33			0.27			0.53			0.41	
Control Delay		16.8			16.6			16.9			14.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.8			16.6			16.9			14.5	
LOS		B			B			B			B	
Approach Delay		16.8			16.6			16.9			14.5	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		28			21			58			51	
Queue Length 95th (ft)		94			74			190			164	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		1972			1848			825			994	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.12			0.39			0.30	

Intersection Summary	
Area Type:	Other
Cycle Length: 89	
Actuated Cycle Length: 49.1	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

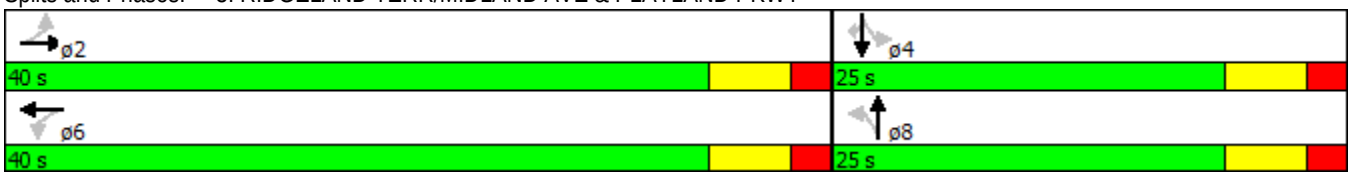
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	133	2	0	154	20	1	3	0	39	2	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.983							0.850
Flt Protected		0.991						0.988			0.954	
Satd. Flow (prot)	0	3240	0	0	3320	0	0	1796	0	0	1824	1639
Flt Permitted		0.891						0.900			0.733	
Satd. Flow (perm)	0	2913	0	0	3320	0	0	1636	0	0	1401	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			22							51
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	33	146	2	0	169	22	1	3	0	43	2	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	181	0	0	191	0	0	4	0	0	45	51
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		27.2			27.2			8.8			10.2	10.2
Actuated g/C Ratio		0.68			0.68			0.22			0.26	0.26
v/c Ratio		0.09			0.08			0.01			0.13	0.11
Control Delay		5.4			4.8			13.8			14.6	6.4
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.4			4.8			13.8			14.6	6.4
LOS		A			A			B			B	A
Approach Delay		5.4			4.8			13.8			10.2	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		11			10			1			8	0
Queue Length 95th (ft)		21			21			7			32	21
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2528			2884			793			679	821
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		0.07			0.07			0.01			0.07	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 39.8	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.13	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 43.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

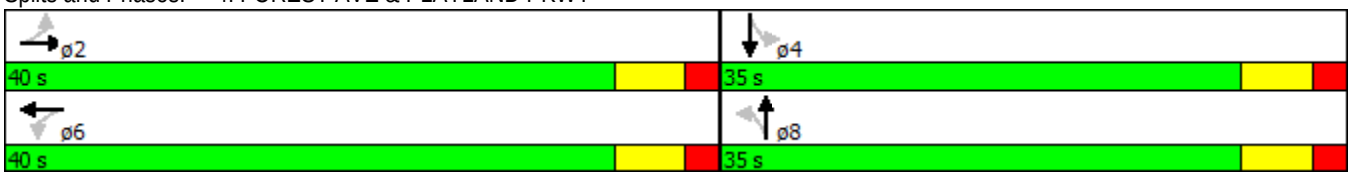


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	67	14	91	4	27	15	70	131	7	11	137	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97			0.99			1.00			0.99	
Frt		0.921			0.950			0.995			0.954	
Flt Protected		0.981			0.996			0.983			0.998	
Satd. Flow (prot)	0	2978	0	0	3035	0	0	1925	0	0	1845	0
Flt Permitted		0.834			0.933			0.824			0.976	
Satd. Flow (perm)	0	2532	0	0	2843	0	0	1613	0	0	1804	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								3			41	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			27			7			3			11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	2%	0%	0%	7%	5%	2%	0%	0%	1%	0%
Adj. Flow (vph)	75	16	102	4	30	17	79	147	8	12	154	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	193	0	0	51	0	0	234	0	0	253	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			12.7			12.7	
Actuated g/C Ratio		0.39			0.39			0.31			0.31	
v/c Ratio		0.19			0.05			0.47			0.43	
Control Delay		9.9			9.3			14.6			11.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.9			9.3			14.6			11.8	
LOS		A			A			B			B	
Approach Delay		9.9			9.3			14.6			11.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		12			3			39			35	
Queue Length 95th (ft)		41			14			92			85	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2145			2408			1166			1315	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.09			0.02			0.20			0.19	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 41.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 53.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



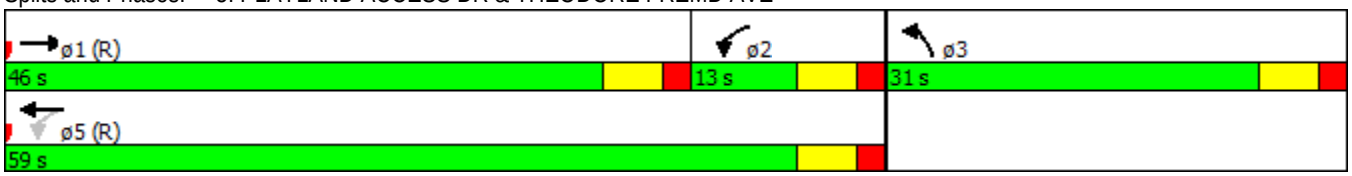
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	205	111	53	197	111	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.953				0.943	
Flt Protected			0.950		0.972	
Satd. Flow (prot)	1765	0	1743	1835	1673	0
Flt Permitted			0.446		0.972	
Satd. Flow (perm)	1765	0	818	1835	1673	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	39					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	1%	4%	2%	2%	4%	3%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	250	135	65	240	135	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	385	0	65	240	235	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.48		0.12	0.22	0.51	
Control Delay	18.1		9.0	9.4	31.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	18.1		9.0	9.4	31.9	
LOS	B		A	A	C	
Approach Delay	18.1			9.3	31.9	
Approach LOS	B			A	C	
Queue Length 50th (ft)	133		15	59	112	
Queue Length 95th (ft)	185		28	86	164	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	806		553	1080	464	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.48		0.12	0.22	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 18.7 Intersection LOS: B
Intersection Capacity Utilization 47.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	227	35	5	205	33	18	47	16	47	72	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			1.00				0.98
Frt		0.980			0.979			0.973				0.850
Flt Protected	0.950			0.950				0.989			0.981	
Satd. Flow (prot)	1769	1926	0	1668	1776	0	0	1896	0	0	2148	1876
Flt Permitted	0.598			0.584				0.919			0.846	
Satd. Flow (perm)	1114	1926	0	1025	1776	0	0	1762	0	0	1853	1836
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)						1			3			1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	0%	0%	2%	3%	6%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	79	249	38	5	225	36	20	52	18	52	79	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	287	0	5	261	0	0	90	0	0	131	32
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.15	0.32		0.01	0.31			0.16			0.23	0.06
Control Delay	10.7	11.9		9.2	11.9			17.0			17.6	15.8
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.7	11.9		9.2	11.9			17.0			17.6	15.8
LOS	B	B		A	B			B			B	B
Approach Delay		11.6			11.9			17.0			17.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	17	66		1	60			25			37	9
Queue Length 95th (ft)	39	113		6	105			55			75	26
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	522	902		480	832			550			579	573
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.15	0.32		0.01	0.31			0.16			0.23	0.06

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.32
Intersection Signal Delay: 13.3 — Intersection LOS: B
Intersection Capacity Utilization 63.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	2	22	134	11	212	3	30	19	40	195	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.861			0.920			0.950			0.996	
Flt Protected	0.950				0.982			0.998			0.992	
Satd. Flow (prot)	1877	1758	0	0	1845	0	0	1792	0	0	1829	0
Flt Permitted	0.950				0.982			0.998			0.992	
Satd. Flow (perm)	1877	1758	0	0	1845	0	0	1792	0	0	1829	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Confl. Peds. (#/hr)									2			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	4%	0%	4%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	14	2	26	156	13	247	3	35	22	47	227	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	28	0	0	416	0	0	60	0	0	282	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	2	22	134	11	212	3	30	19	40	195	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	4	0	4	0	0	0	0	2	0
Mvmt Flow	14	2	26	156	13	247	3	35	22	47	227	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	507	388	233	391	381	46	235	0	0	57	0	0
Stage 1	324	324	-	53	53	-	-	-	-	-	-	-
Stage 2	183	64	-	338	328	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.536	4	3.336	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	600	653	854	529	521	1014	1344	-	-	1560	-	-
Stage 1	800	754	-	946	847	-	-	-	-	-	-	-
Stage 2	893	870	-	635	616	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	433	629	853	496	502	1014	1342	-	-	1560	-	-
Mov Capacity-2 Maneuver	433	629	-	496	502	-	-	-	-	-	-	-
Stage 1	798	728	-	944	845	-	-	-	-	-	-	-
Stage 2	664	868	-	592	594	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	16.9	0.4	1.2
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1342	-	-	433	733	712	1560	-	-
HCM Lane V/C Ratio	0.003	-	-	0.021	0.044	0.583	0.03	-	-
HCM Control Delay (s)	7.69	0	-	13.5	10.1	16.9	7.379	0	-
HCM Lane LOS	A	A		B	B	C	A	A	
HCM 95th %tile Q(veh)	0.008	-	-	0.066	0.139	3.805	0.092	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	6	207	112	48	248	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.959		0.957	
Flt Protected		0.999			0.967	
Satd. Flow (prot)	0	2016	1901	0	1712	0
Flt Permitted		0.999			0.967	
Satd. Flow (perm)	0	2016	1901	0	1712	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Confl. Peds. (#/hr)				3		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	1%	0%	3%	2%
Adj. Flow (vph)	7	227	123	53	273	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	234	176	0	399	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	6	207	112	48	248	115
Conflicting Peds, #/hr	0	0	0	3	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, %	-	-3	3	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	0	3	2
Mvmt Flow	7	227	123	53	273	126

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	176	0	-	0	390	149
Stage 1	-	-	-	-	149	-
Stage 2	-	-	-	-	241	-
Follow-up Headway	2.2	-	-	-	3.527	3.318
Pot Capacity-1 Maneuver	1412	-	-	-	612	898
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	797	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1412	-	-	-	608	898
Mov Capacity-2 Maneuver	-	-	-	-	608	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	17.7
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1412	-	-	-	677
HCM Lane V/C Ratio	0.005	-	-	-	0.589
HCM Control Delay (s)	7.562	0	-	-	17.7
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	0.014	-	-	-	3.872

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	357	98	130	106	15	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.939		0.911	
Flt Protected		0.962			0.983	
Satd. Flow (prot)	0	1887	1912	0	1632	0
Flt Permitted		0.962			0.983	
Satd. Flow (perm)	0	1887	1912	0	1632	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	1%	1%	1%	8%	0%
Adj. Flow (vph)	397	109	144	118	17	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	506	262	0	50	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 51.6%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	357	98	130	106	15	30
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, %	-	3	-3	-	3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	1	8	0
Mvmt Flow	397	109	144	118	17	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	262	0	-	0	1105	203
Stage 1	-	-	-	-	203	-
Stage 2	-	-	-	-	902	-
Follow-up Headway	2.218	-	-	-	3.572	3.3
Pot Capacity-1 Maneuver	1302	-	-	-	189	829
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	332	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1302	-	-	-	128	829
Mov Capacity-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	224	-

Approach	EB	WB	SB
HCM Control Delay, s	7	0	19.8
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1302	-	-	-	293
HCM Lane V/C Ratio	0.305	-	-	-	0.171
HCM Control Delay (s)	8.972	0	-	-	19.8
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	1.3	-	-	-	0.605

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	30	31	112	0	0	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Confl. Peds. (#/hr)		8			6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	0%	0%	2%
Adj. Flow (vph)	33	34	123	0	0	227
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	34	123	0	0	227
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	30	31	112	0	0	207
Conflicting Peds, #/hr	0	8	0	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	33	34	123	0	0	227

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	358	137	0	0	131	0
Stage 1	131	-	-	-	-	-
Stage 2	227	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	518	879	-	-	1467	-
Stage 1	831	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	513	866	-	-	1458	-
Mov Capacity-2 Maneuver	513	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	710	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	513	866	1458	-
HCM Lane V/C Ratio	-	-	0.064	0.039	-	-
HCM Control Delay (s)	-	-	12.5	9.3	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.205	0.123	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	380	27	4	298	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.991					
Flt Protected			0.950			
Satd. Flow (prot)	1930	0	1760	1834	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1930	0	1760	1834	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		9				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	400	28	4	314	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	428	0	4	314	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 25.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	380	27	4	298	0	0
Conflicting Peds, #/hr	0	9	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	400	28	4	314	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	428	0	736	414
Stage 1	-	-	-	-	414	-
Stage 2	-	-	-	-	322	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1142	-	317	607
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	676	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1142	-	314	607
Mov Capacity-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	669	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1142	-
HCM Lane V/C Ratio	+	-	-	0.004	-
HCM Control Delay (s)	0	-	-	8.164	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.011	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	119	113	33	144	15	102	135	18	17	178	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00						1.00	
Frt		0.937			0.988			0.990			0.986	
Flt Protected		0.993			0.991			0.980			0.996	
Satd. Flow (prot)	0	3137	0	0	3231	0	0	2029	0	0	2059	0
Flt Permitted		0.880			0.855			0.792			0.956	
Satd. Flow (perm)	0	2780	0	0	2788	0	0	1640	0	0	1976	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		126			12			4			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						15						1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	3%	1%	0%	0%	3%	12%	13%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	43	132	126	37	160	17	113	150	20	19	198	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	301	0	0	214	0	0	283	0	0	243	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

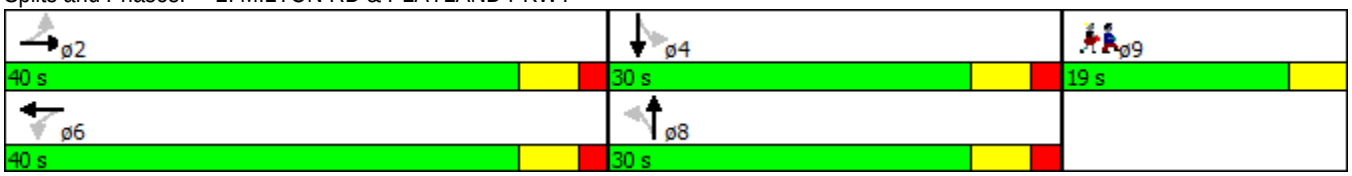
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		15.8			15.8			14.9			14.9	
Actuated g/C Ratio		0.34			0.34			0.32			0.32	
v/c Ratio		0.29			0.22			0.53			0.38	
Control Delay		9.7			14.1			17.5			14.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			14.1			17.5			14.3	
LOS		A			B			B			B	
Approach Delay		9.7			14.1			17.5			14.3	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)		13			15			49			39	
Queue Length 95th (ft)		66			68			162			130	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2201			2183			907			1094	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.14			0.10			0.31			0.22	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 45.9
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 70.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	125	1	0	154	12	1	1	0	34	0	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00							
Frt		0.999			0.989							0.850
Flt Protected		0.991						0.976			0.950	
Satd. Flow (prot)	0	3146	0	0	3364	0	0	1774	0	0	1868	1623
Flt Permitted		0.890						0.821			0.757	
Satd. Flow (perm)	0	2826	0	0	3364	0	0	1492	0	0	1489	1623
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14							50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Confl. Peds. (#/hr)						5			4			
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	8%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%	3%
Adj. Flow (vph)	34	151	1	0	186	14	1	1	0	41	0	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	0	0	200	0	0	2	0	0	41	45
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		27.9			27.9			8.8			10.2	10.2
Actuated g/C Ratio		0.69			0.69			0.22			0.25	0.25
v/c Ratio		0.10			0.09			0.01			0.11	0.10
Control Delay		5.3			4.9			14.0			14.7	6.1
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.3			4.9			14.0			14.7	6.1
LOS		A			A			B			B	A
Approach Delay		5.3			4.9			14.0			10.2	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		11			11			0			8	0
Queue Length 95th (ft)		20			20			4			28	16
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2416			2878			712			711	801
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		0.08			0.07			0.00			0.06	0.06

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 40.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.11
Intersection Signal Delay: 6.0 Intersection LOS: A

Intersection Capacity Utilization 43.3% ICU Level of Service A

Analysis Period (min) 15

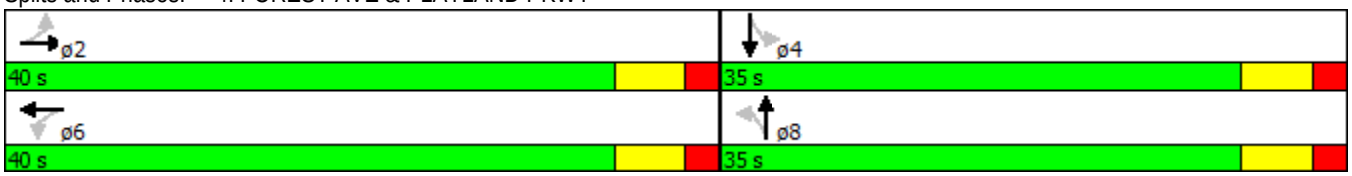
Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	16	80	6	25	15	75	128	2	10	110	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99			1.00			0.99	
Frt		0.925			0.950			0.999			0.953	
Flt Protected		0.980			0.994			0.982			0.997	
Satd. Flow (prot)	0	3018	0	0	2954	0	0	1956	0	0	1832	0
Flt Permitted		0.830			0.917			0.816			0.972	
Satd. Flow (perm)	0	2556	0	0	2725	0	0	1626	0	0	1786	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								1			42	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			18			11			3			4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	7%	0%	0%	0%	14%	1%	2%	0%	0%	1%	2%
Adj. Flow (vph)	75	19	94	7	29	18	88	151	2	12	129	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	188	0	0	54	0	0	241	0	0	217	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			12.7			12.7	
Actuated g/C Ratio		0.39			0.39			0.31			0.31	
v/c Ratio		0.19			0.05			0.48			0.37	
Control Delay		9.9			9.3			14.8			10.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.9			9.3			14.8			10.7	
LOS		A			A			B			B	
Approach Delay		9.9			9.3			14.8			10.7	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		12			3			41			28	
Queue Length 95th (ft)		38			14			90			68	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2162			2305			1173			1300	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.09			0.02			0.21			0.17	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 41.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



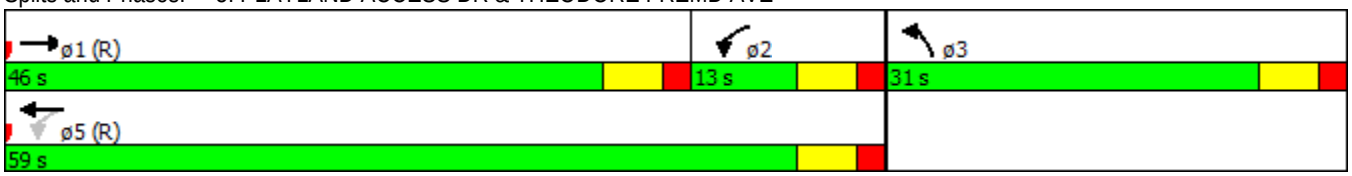
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	134	94	43	139	121	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.944				0.952	
Flt Protected			0.950		0.969	
Satd. Flow (prot)	1751	0	1778	1853	1722	0
Flt Permitted			0.577		0.969	
Satd. Flow (perm)	1751	0	1080	1853	1722	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	50					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	3%	0%	1%	2%	0%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	147	103	47	153	133	73
Shared Lane Traffic (%)						
Lane Group Flow (vph)	250	0	47	153	206	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.31		0.07	0.14	0.43	
Control Delay	13.9		8.3	8.7	30.1	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	13.9		8.3	8.7	30.1	
LOS	B		A	A	C	
Approach Delay	13.9			8.6	30.1	
Approach LOS	B			A	C	
Queue Length 50th (ft)	69		10	36	96	
Queue Length 95th (ft)	123		24	63	161	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	806		690	1091	478	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.31		0.07	0.14	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.43
Intersection Signal Delay: 17.4 Intersection LOS: B
Intersection Capacity Utilization 41.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	148	25	6	161	21	5	47	10	47	59	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												0.98
Frt		0.979			0.983			0.978				0.850
Flt Protected	0.950			0.950				0.996			0.978	
Satd. Flow (prot)	1787	1924	0	1668	1801	0	0	1954	0	0	2112	1876
Flt Permitted	0.632			0.638				0.979			0.841	
Satd. Flow (perm)	1189	1924	0	1120	1801	0	0	1921	0	0	1816	1836
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		18										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)												1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	1%	5%	0%	0%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	57	163	27	7	177	23	5	52	11	52	65	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	190	0	7	200	0	0	68	0	0	117	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.10	0.21		0.01	0.24			0.11			0.21	0.06
Control Delay	10.2	9.8		9.3	11.1			16.4			17.4	2.2
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.2	9.8		9.3	11.1			16.4			17.4	2.2
LOS	B	A		A	B			B			B	A
Approach Delay		9.9			11.1			16.4			13.8	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	12	37		1	44			19			33	0
Queue Length 95th (ft)	30	71		7	81			44			68	9
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	557	911		525	844			600			567	620
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.10	0.21		0.01	0.24			0.11			0.21	0.06

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.24
Intersection Signal Delay: 11.8 — Intersection LOS: B
Intersection Capacity Utilization 43.0% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	1	3	135	1	208	3	19	15	28	159	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.887			0.918			0.945			0.999	
Flt Protected	0.950				0.981			0.996			0.993	
Satd. Flow (prot)	1877	1811	0	0	1891	0	0	1779	0	0	1850	0
Flt Permitted	0.950				0.981			0.996			0.993	
Satd. Flow (perm)	1877	1811	0	0	1891	0	0	1779	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Confl. Peds. (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	7	1	3	141	1	217	3	20	16	29	166	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	4	0	0	359	0	0	39	0	0	197	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	1	3	135	1	208	3	19	15	28	159	2
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	1	0	1	0	0	0	0	1	0
Mvmt Flow	7	1	3	141	1	217	3	20	16	29	166	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	369	268	168	262	261	28	169	0	0	35	0	0
Stage 1	226	226	-	34	34	-	-	-	-	-	-	-
Stage 2	143	42	-	228	227	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.509	4	3.309	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	697	723	915	663	620	1048	1421	-	-	1589	-	-
Stage 1	864	797	-	979	866	-	-	-	-	-	-	-
Stage 2	921	880	-	748	693	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	542	706	914	649	606	1048	1421	-	-	1589	-	-
Mov Capacity-2 Maneuver	542	706	-	649	606	-	-	-	-	-	-	-
Stage 1	861	780	-	977	864	-	-	-	-	-	-	-
Stage 2	728	878	-	730	679	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	12.4	0.6	1.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1421	-	-	542	703	843	1589	-	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.009	0.425	0.018	-	-
HCM Control Delay (s)	7.539	0	-	11.7	10.2	12.4	7.308	0	-
HCM Lane LOS	A	A		B	B	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.027	0.028	2.142	0.056	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	3	145	88	41	189	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.957		0.950	
Flt Protected		0.999			0.970	
Satd. Flow (prot)	0	2015	1910	0	1729	0
Flt Permitted		0.999			0.970	
Satd. Flow (perm)	0	2015	1910	0	1729	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Confl. Peds. (#/hr)				2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	3	165	100	47	215	127
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	168	147	0	342	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	3	145	88	41	189	112
Conflicting Peds, #/hr	0	0	0	2	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, %	-	-3	3	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	0	2	0
Mvmt Flow	3	165	100	47	215	127

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	147	0	-	0	295	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	172	-
Follow-up Headway	2.2	-	-	-	3.518	3.3
Pot Capacity-1 Maneuver	1447	-	-	-	696	933
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	858	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1447	-	-	-	695	933
Mov Capacity-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	856	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.4
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1447	-	-	-	768
HCM Lane V/C Ratio	0.002	-	-	-	0.445
HCM Control Delay (s)	7.494	0	-	-	13.4
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.007	-	-	-	2.309

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	247	87	106	90	8	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.938		0.901	
Flt Protected		0.964			0.987	
Satd. Flow (prot)	0	1883	1921	0	1664	0
Flt Permitted		0.964			0.987	
Satd. Flow (perm)	0	1883	1921	0	1664	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	3%	0%	0%	1%	0%	0%
Adj. Flow (vph)	305	107	131	111	10	28
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	412	242	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 42.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	247	87	106	90	8	23
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, %	-	3	-3	-	3	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	3	0	0	1	0	0
Mvmt Flow	305	107	131	111	10	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	242	0	-	0	903	186
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	717	-
Follow-up Headway	2.227	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	1319	-	-	-	267	848
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	432	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1319	-	-	-	201	848
Mov Capacity-2 Maneuver	-	-	-	-	201	-
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	326	-

Approach	EB	WB	SB
HCM Control Delay, s	6.3	0	13.5
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1319	-	-	-	463
HCM Lane V/C Ratio	0.231	-	-	-	0.083
HCM Control Delay (s)	8.548	0	-	-	13.5
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.896	-	-	-	0.269

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	22	25	95	0	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	2047	0	0	1987
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	2047	0	0	1987
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Confl. Peds. (#/hr)		2			2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	25	28	108	0	0	198
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	28	108	0	0	198
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	25	95	0	0	174
Conflicting Peds, #/hr	0	2	0	0	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	25	28	108	0	0	198

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	308	112	0	0	110	0
Stage 1	110	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	570	915	-	-	1493	-
Stage 1	860	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	569	911	-	-	1490	-
Mov Capacity-2 Maneuver	569	-	-	-	-	-
Stage 1	858	-	-	-	-	-
Stage 2	744	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	569	911	1490	-
HCM Lane V/C Ratio	-	-	0.044	0.031	-	-
HCM Control Delay (s)	-	-	11.6	9.1	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.138	0.096	0	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	289	30	4	250	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.987					
Flt Protected			0.950			
Satd. Flow (prot)	1922	0	1760	1853	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1922	0	1760	1853	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		14				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	328	34	5	284	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	362	0	5	284	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 20.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	289	30	4	250	0	0
Conflicting Peds, #/hr	0	14	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	328	34	5	284	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	363	0	638	345
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	293	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1207	-	372	670
Stage 1	-	-	-	-	656	-
Stage 2	-	-	-	-	702	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1207	-	366	670
Mov Capacity-2 Maneuver	-	-	-	-	366	-
Stage 1	-	-	-	-	656	-
Stage 2	-	-	-	-	691	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1207	-
HCM Lane V/C Ratio	+	-	-	0.004	-
HCM Control Delay (s)	0	-	-	7.994	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.011	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	379	145	37	314	23	134	122	16	49	223	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.991			0.992			0.989	
Flt Protected		0.997			0.995			0.976			0.992	
Satd. Flow (prot)	0	3181	0	0	3241	0	0	2034	0	0	2057	0
Flt Permitted		0.910			0.843			0.687			0.897	
Satd. Flow (perm)	0	2903	0	0	2746	0	0	1432	0	0	1860	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			9			3			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	32	412	158	40	341	25	146	133	17	53	242	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	602	0	0	406	0	0	296	0	0	321	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

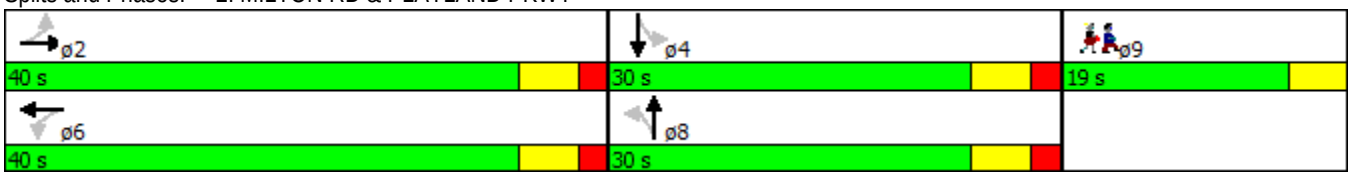
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		17.3			17.3			21.6			21.6	
Actuated g/C Ratio		0.32			0.32			0.40			0.40	
v/c Ratio		0.62			0.46			0.52			0.43	
Control Delay		18.3			17.7			18.9			16.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.3			17.7			18.9			16.1	
LOS		B			B			B			B	
Approach Delay		18.3			17.7			18.9			16.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		66			46			54			56	
Queue Length 95th (ft)		174			124			#228			217	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		1941			1818			669			870	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.31			0.22			0.44			0.37	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 54
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 17.8 Intersection LOS: B
Intersection Capacity Utilization 78.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

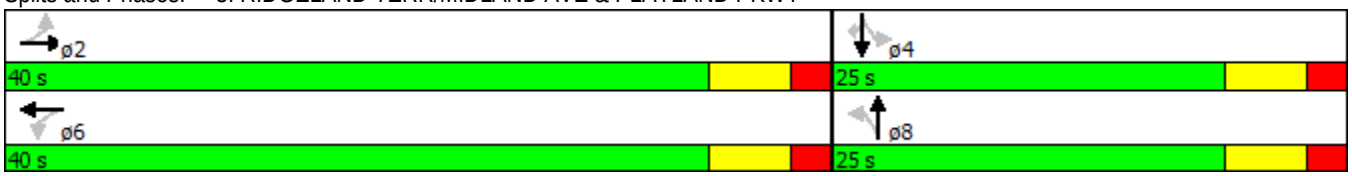
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	407	3	0	314	33	6	2	2	52	3	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.986			0.975				0.850
Flt Protected		0.996						0.969			0.955	
Satd. Flow (prot)	0	3221	0	0	3322	0	0	1684	0	0	1841	1639
Flt Permitted		0.906						0.788			0.729	
Satd. Flow (perm)	0	2930	0	0	3322	0	0	1369	0	0	1405	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			26			2				59
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	442	3	0	341	36	7	2	2	57	3	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	482	0	0	377	0	0	11	0	0	60	59
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		25.0			25.0			9.6			10.3	10.3
Actuated g/C Ratio		0.59			0.59			0.23			0.24	0.24
v/c Ratio		0.28			0.19			0.04			0.18	0.13
Control Delay		6.8			5.9			12.9			15.3	6.2
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.8			5.9			12.9			15.3	6.2
LOS		A			A			B			B	A
Approach Delay		6.8			5.9			12.9			10.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		33			23			1			9	0
Queue Length 95th (ft)		54			39			12			40	23
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2412			2739			630			646	785
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		0.20			0.14			0.02			0.09	0.08

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 42.4	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.28	
Intersection Signal Delay: 7.0	Intersection LOS: A
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



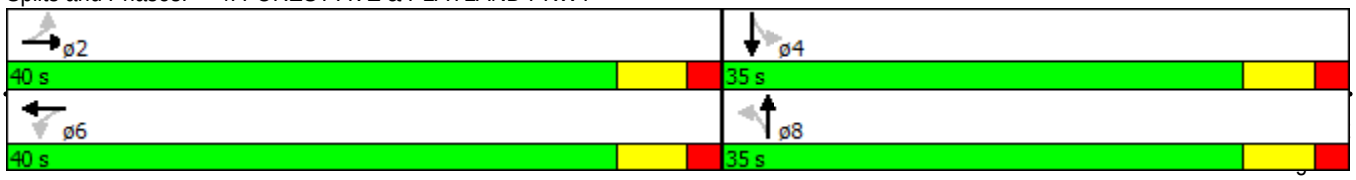
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	232	128	35	166	39	121	164	27	23	204	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.976			0.988			0.972	
Flt Protected		0.989			0.993			0.981			0.996	
Satd. Flow (prot)	0	3177	0	0	3153	0	0	1926	0	0	1863	0
Flt Permitted		0.810			0.837			0.767			0.949	
Satd. Flow (perm)	0	2602	0	0	2658	0	0	1506	0	0	1776	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											20	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	252	139	38	180	42	132	178	29	25	222	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	501	0	0	260	0	0	339	0	0	311	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.2			16.2			16.1			16.1	
Actuated g/C Ratio		0.36			0.36			0.36			0.36	
v/c Ratio		0.53			0.27			0.63			0.48	
Control Delay		14.8			12.2			17.3			12.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.8			12.2			17.3			12.7	
LOS		B			B			B			B	
Approach Delay		14.8			12.2			17.3			12.7	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		47			22			64			51	
Queue Length 95th (ft)		115			58			143			115	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2032			2076			1003			1189	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.25			0.13			0.34			0.26	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 44.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 14.5 — Intersection LOS: B
Intersection Capacity Utilization 78.5% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

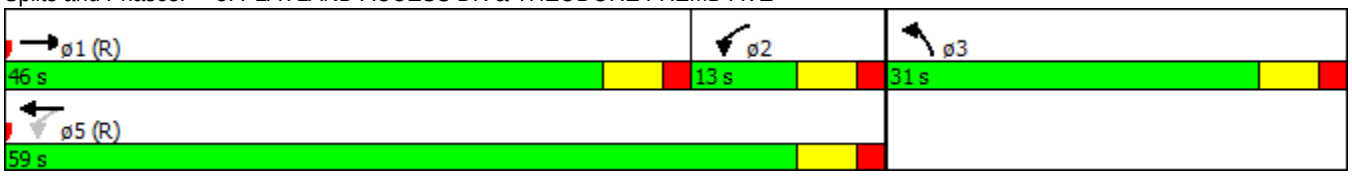


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	217	118	81	223	145	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953				0.937	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1780	0	1743	1835	1692	0
Flt Permitted			0.465		0.974	
Satd. Flow (perm)	1780	0	853	1835	1692	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	39					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	236	128	88	242	158	138
Shared Lane Traffic (%)						
Lane Group Flow (vph)	364	0	88	242	296	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.45		0.15	0.22	0.63	
Control Delay	17.5		9.4	9.4	35.5	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	17.5		9.4	9.4	35.5	
LOS	B		A	A	D	
Approach Delay	17.5			9.4	35.5	
Approach LOS	B			A	D	
Queue Length 50th (ft)	123		20	60	147	
Queue Length 95th (ft)	197		40	98	235	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		571	1080	470	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.45		0.15	0.22	0.63	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	195	37	12	252	51	13	80	6	37	108	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.975			0.991				0.850
Flt Protected	0.950			0.950				0.994			0.987	
Satd. Flow (prot)	1752	1897	0	1635	1776	0	0	1938	0	0	2136	1839
Flt Permitted	0.551			0.603				0.951			0.897	
Satd. Flow (perm)	1016	1897	0	1038	1776	0	0	1854	0	0	1941	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		20										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	153	212	40	13	274	55	14	87	7	40	117	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	153	252	0	13	329	0	0	108	0	0	157	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.32	0.28		0.03	0.40			0.19			0.26	0.10
Control Delay	13.0	10.6		9.4	12.9			17.2			17.9	4.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	13.0	10.6		9.4	12.9			17.2			17.9	4.9
LOS	B	B		A	B			B			B	A
Approach Delay		11.5			12.8			17.2			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	35	51		3	79			30			45	0
Queue Length 95th (ft)	73	94		10	135			63			87	21
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	476	899		486	832			579			606	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.32	0.28		0.03	0.40			0.19			0.26	0.10

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 13.0 — Intersection LOS: B
Intersection Capacity Utilization 55.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	2	41	129	11	241	6	46	39	50	271	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.856			0.915			0.943			0.994	
Flt Protected	0.950				0.983			0.996			0.993	
Satd. Flow (prot)	1840	1714	0	0	1870	0	0	1741	0	0	1820	0
Flt Permitted	0.950				0.983			0.996			0.993	
Satd. Flow (perm)	1840	1714	0	0	1870	0	0	1741	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	2	45	140	12	262	7	50	42	54	295	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	47	0	0	414	0	0	99	0	0	366	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 60.5%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	10.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	31	2	41	129	11	241	6	46	39	50	271	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	2	45	140	12	262	7	50	42	54	295	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	633	517	303	519	505	71	312	0	0	92	0	0
Stage 1	412	412	-	84	84	-	-	-	-	-	-	-
Stage 2	221	105	-	435	421	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	520	582	788	429	432	986	1248	-	-	1503	-	-
Stage 1	741	714	-	911	814	-	-	-	-	-	-	-
Stage 2	862	847	-	558	549	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	359	553	788	388	411	986	1248	-	-	1503	-	-
Mov Capacity-2 Maneuver	359	553	-	388	411	-	-	-	-	-	-	-
Stage 1	737	683	-	906	809	-	-	-	-	-	-	-
Stage 2	620	842	-	502	525	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	20.9	0.5	1.1
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	359	632	631	1503	-	-
HCM Lane V/C Ratio	0.005	-	-	0.063	0.092	0.656	0.036	-	-
HCM Control Delay (s)	7.9	0	-	15.7	11.3	20.9	7.485	0	-
HCM Lane LOS	A	A		C	B	C	A	A	
HCM 95th %tile Q(veh)	0.016	-	-	0.199	0.302	4.858	0.112	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	11	201	119	80	341	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.946		0.967	
Flt Protected		0.997			0.964	
Satd. Flow (prot)	0	2011	1851	0	1736	0
Flt Permitted		0.997			0.964	
Satd. Flow (perm)	0	2011	1851	0	1736	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	218	129	87	371	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	230	216	0	492	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	14.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	11	201	119	80	341	111
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	218	129	87	371	121

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	216	0	-	0	415	173
Stage 1	-	-	-	-	173	-
Stage 2	-	-	-	-	242	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1354	-	-	-	594	871
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	798	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1354	-	-	-	588	871
Mov Capacity-2 Maneuver	-	-	-	-	588	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	790	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	26.8
HCM LOS			D

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1354	-	-	-	639
HCM Lane V/C Ratio	0.009	-	-	-	0.769
HCM Control Delay (s)	7.682	0	-	-	26.8
HCM Lane LOS	A	A			D
HCM 95th %tile Q(veh)	0.027	-	-	-	7.184

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	436	107	154	136	27	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.937		0.915	
Flt Protected		0.961			0.982	
Satd. Flow (prot)	0	1881	1890	0	1649	0
Flt Permitted		0.961			0.982	
Satd. Flow (perm)	0	1881	1890	0	1649	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	474	116	167	148	29	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	590	315	0	78	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.5%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	436	107	154	136	27	45
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	116	167	148	29	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	315	0	-	0	1305	241
Stage 1	-	-	-	-	241	-
Stage 2	-	-	-	-	1064	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1245	-	-	-	142	782
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	278	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1245	-	-	-	84	782
Mov Capacity-2 Maneuver	-	-	-	-	84	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	165	-

Approach	EB	WB	SB
HCM Control Delay, s	7.8	0	36.6
HCM LOS			E

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1245	-	-	-	190
HCM Lane V/C Ratio	0.381	-	-	-	0.412
HCM Control Delay (s)	9.658	0	-	-	36.6
HCM Lane LOS	A	A			E
HCM 95th %tile Q(veh)	1.81	-	-	-	1.855

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	31	24	134	0	0	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	26	146	0	0	282
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	26	146	0	0	282
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	31	24	134	0	0	259
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	26	146	0	0	282

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	428	146	0	0	146	0
Stage 1	146	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	449	862	-	-	1436	-
Stage 1	806	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	449	862	-	-	1436	-
Mov Capacity-2 Maneuver	449	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	645	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	449	862	1436	-
HCM Lane V/C Ratio	-	-	0.075	0.03	-	-
HCM Control Delay (s)	-	-	13.7	9.3	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.242	0.094	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	279	49	5	352	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980					
Flt Protected			0.950			
Satd. Flow (prot)	1871	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1871	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	303	53	5	383	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	356	0	5	383	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	279	49	5	352	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	303	53	5	383	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	357	0	723	330
Stage 1	-	-	-	-	330	-
Stage 2	-	-	-	-	393	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1202	-	322	680
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	611	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1202	-	321	680
Mov Capacity-2 Maneuver	-	-	-	-	321	-
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	608	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1202	-
HCM Lane V/C Ratio	+	-	-	0.005	-
HCM Control Delay (s)	0	-	-	8.009	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.014	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	527	121	25	178	24	105	135	43	28	144	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.984			0.979			0.985	
Flt Protected		0.999			0.995			0.982			0.993	
Satd. Flow (prot)	0	3227	0	0	3218	0	0	2019	0	0	2050	0
Flt Permitted		0.943			0.843			0.816			0.923	
Satd. Flow (perm)	0	3046	0	0	2726	0	0	1678	0	0	1906	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			17			10			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	18	573	132	27	193	26	114	147	47	30	157	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	723	0	0	246	0	0	308	0	0	210	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

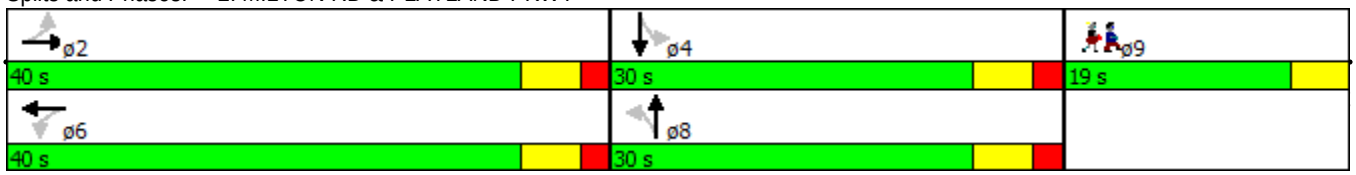
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		19.2			19.2			16.2			16.2	
Actuated g/C Ratio		0.38			0.38			0.32			0.32	
v/c Ratio		0.62			0.24			0.57			0.34	
Control Delay		16.4			12.7			21.0			17.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.4			12.7			21.0			17.0	
LOS		B			B			C			B	
Approach Delay		16.4			12.7			21.0			17.0	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		68			19			55			34	
Queue Length 95th (ft)		222			73			228			150	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2239			2000			871			988	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.12			0.35			0.21	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 50.8
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 16.8 — Intersection LOS: B
Intersection Capacity Utilization 71.9% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

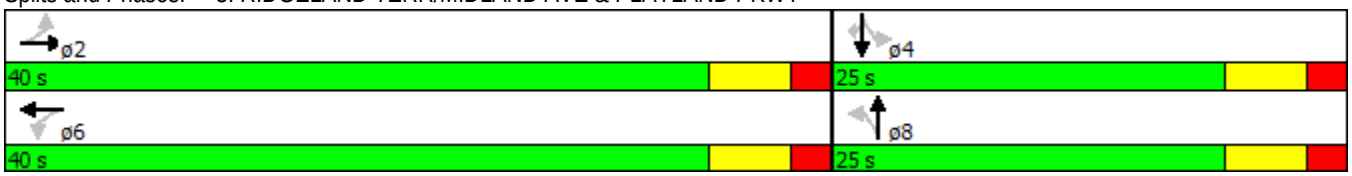
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	570	0	3	178	19	6	0	1	47	3	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985			0.983				0.850
Flt Protected		0.998			0.999			0.958			0.955	
Satd. Flow (prot)	0	3231	0	0	3315	0	0	1678	0	0	1841	1639
Flt Permitted		0.935			0.947			0.714			0.732	
Satd. Flow (perm)	0	3027	0	0	3143	0	0	1251	0	0	1411	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					21			50				50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	620	0	3	193	21	7	0	1	51	3	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	650	0	0	217	0	0	8	0	0	54	47
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.6			26.6			8.8			10.1	10.1
Actuated g/C Ratio		0.68			0.68			0.22			0.26	0.26
v/c Ratio		0.32			0.10			0.03			0.15	0.10
Control Delay		6.2			5.0			0.1			14.5	6.2
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.2			5.0			0.1			14.5	6.2
LOS		A			A			A			B	A
Approach Delay		6.2			5.0			0.1			10.7	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)		48			12			0			8	0
Queue Length 95th (ft)		75			23			0			37	20
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2657			2761			639			692	829
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		0.24			0.08			0.01			0.08	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 39.3	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 52.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



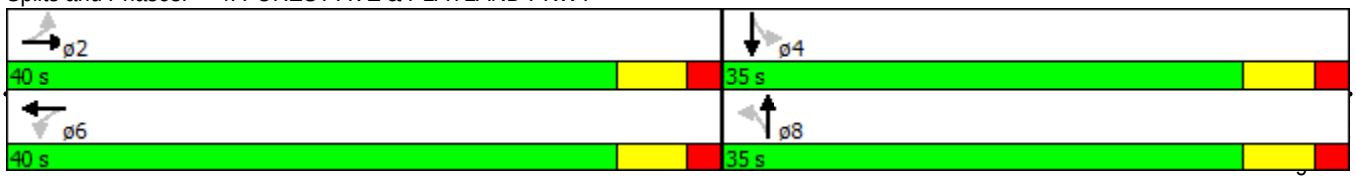
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	466	76	11	89	14	68	120	16	22	114	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.982			0.990			0.967	
Flt Protected		0.994			0.995			0.984			0.994	
Satd. Flow (prot)	0	3269	0	0	3179	0	0	1936	0	0	1850	0
Flt Permitted		0.895			0.880			0.819			0.935	
Satd. Flow (perm)	0	2944	0	0	2812	0	0	1611	0	0	1740	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											25	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	82	507	83	12	97	15	74	130	17	24	124	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	672	0	0	124	0	0	221	0	0	195	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.3			16.3			12.7			12.7	
Actuated g/C Ratio		0.39			0.39			0.31			0.31	
v/c Ratio		0.58			0.11			0.45			0.35	
Control Delay		13.0			9.4			14.6			11.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.0			9.4			14.6			11.5	
LOS		B			A			B			B	
Approach Delay		13.0			9.4			14.6			11.5	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		52			7			37			27	
Queue Length 95th (ft)		140			28			93			74	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2481			2370			1157			1257	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.05			0.19			0.16	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 41.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 12.7 — Intersection LOS: B
Intersection Capacity Utilization 54.3% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

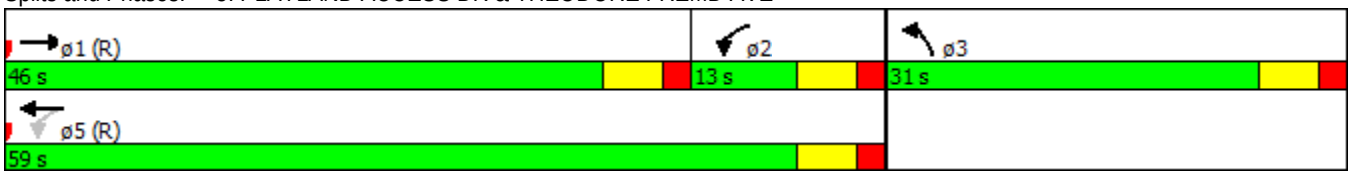


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	162	94	57	174	94	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.950				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1775	0	1743	1835	1693	0
Flt Permitted			0.549		0.974	
Satd. Flow (perm)	1775	0	1007	1835	1693	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	42					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	176	102	62	189	102	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	278	0	62	189	189	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.34		0.10	0.17	0.40	
Control Delay	15.2		8.7	9.0	29.6	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	15.2		8.7	9.0	29.6	
LOS	B		A	A	C	
Approach Delay	15.2			8.9	29.6	
Approach LOS	B			A	C	
Queue Length 50th (ft)	83		14	45	87	
Queue Length 95th (ft)	142		30	77	149	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		650	1080	470	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.34		0.10	0.17	0.40	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 16.8	Intersection LOS: B
Intersection Capacity Utilization 42.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	184	28	7	175	27	14	37	6	34	49	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.980			0.985				0.850
Flt Protected	0.950			0.950				0.988			0.980	
Satd. Flow (prot)	1752	1905	0	1635	1786	0	0	1914	0	0	2121	1839
Flt Permitted	0.621			0.615				0.927			0.865	
Satd. Flow (perm)	1145	1905	0	1059	1786	0	0	1796	0	0	1872	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		16										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	66	200	30	8	190	29	15	40	7	37	53	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	230	0	8	219	0	0	62	0	0	90	64
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.12	0.26		0.02	0.26			0.11			0.15	0.10
Control Delay	10.4	10.4		9.3	11.4			16.4			16.8	5.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.4	10.4		9.3	11.4			16.4			16.8	5.0
LOS	B	B		A	B			B			B	A
Approach Delay		10.4			11.3			16.4			11.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	14	47		2	49			17			25	0
Queue Length 95th (ft)	33	86		8	88			41			55	22
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	536	901		496	837			561			585	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.12	0.26		0.02	0.26			0.11			0.15	0.10

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.26
Intersection Signal Delay: 11.5 — Intersection LOS: B
Intersection Capacity Utilization 42.0% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	2	17	120	5	193	3	30	17	31	157	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.918			0.955			0.993	
Flt Protected	0.950				0.982			0.997			0.992	
Satd. Flow (prot)	1840	1732	0	0	1875	0	0	1765	0	0	1817	0
Flt Permitted	0.950				0.982			0.997			0.992	
Satd. Flow (perm)	1840	1732	0	0	1875	0	0	1765	0	0	1817	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	2	18	130	5	210	3	33	18	34	171	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	20	0	0	345	0	0	54	0	0	217	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 49.4%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	2	17	120	5	193	3	30	17	31	157	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	2	18	130	5	210	3	33	18	34	171	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	400	302	177	302	298	42	183	0	0	51	0	0
Stage 1	244	244	-	48	48	-	-	-	-	-	-	-
Stage 2	156	58	-	254	250	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	670	699	901	618	584	1025	1392	-	-	1555	-	-
Stage 1	847	785	-	958	848	-	-	-	-	-	-	-
Stage 2	907	869	-	719	671	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	519	681	901	592	569	1025	1392	-	-	1555	-	-
Mov Capacity-2 Maneuver	519	681	-	592	569	-	-	-	-	-	-	-
Stage 1	845	766	-	956	846	-	-	-	-	-	-	-
Stage 2	715	867	-	685	655	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	13	0.5	1.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	519	779	795	1555	-	-
HCM Lane V/C Ratio	0.002	-	-	0.017	0.032	0.435	0.022	-	-
HCM Control Delay (s)	7.592	0	-	12.1	9.8	13	7.366	0	-
HCM Lane LOS	A	A		B	A	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.051	0.099	2.22	0.066	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	8	183	93	38	194	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.961		0.954	
Flt Protected		0.998			0.968	
Satd. Flow (prot)	0	2013	1881	0	1720	0
Flt Permitted		0.998			0.968	
Satd. Flow (perm)	0	2013	1881	0	1720	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	199	101	41	211	110
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	208	142	0	321	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	6.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	8	183	93	38	194	101
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	199	101	41	211	110

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	142	0	-	0	338	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	216	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1441	-	-	-	658	929
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	820	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1441	-	-	-	653	929
Mov Capacity-2 Maneuver	-	-	-	-	653	-
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13.8
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1441	-	-	-	727
HCM Lane V/C Ratio	0.006	-	-	-	0.441
HCM Control Delay (s)	7.513	0	-	-	13.8
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.018	-	-	-	2.266

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	297	81	105	77	21	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.943		0.925	
Flt Protected		0.962			0.978	
Satd. Flow (prot)	0	1883	1902	0	1660	0
Flt Permitted		0.962			0.978	
Satd. Flow (perm)	0	1883	1902	0	1660	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	323	88	114	84	23	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	411	198	0	52	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	297	81	105	77	21	27
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	323	88	114	84	23	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	198	0	-	0	890	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	734	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1375	-	-	-	270	878
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	420	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1375	-	-	-	203	878
Mov Capacity-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	316	-

Approach	EB	WB	SB
HCM Control Delay, s	6.6	0	16.8
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1375	-	-	-	358
HCM Lane V/C Ratio	0.235	-	-	-	0.146
HCM Control Delay (s)	8.42	0	-	-	16.8
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	0.914	-	-	-	0.505

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	14	14	102	0	0	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	15	111	0	0	184
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	15	111	0	0	184
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	14	102	0	0	169
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	15	111	0	0	184

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	295	111	0	0	111	0
Stage 1	111	-	-	-	-	-
Stage 2	184	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	581	911	-	-	1479	-
Stage 1	854	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	581	911	-	-	1479	-
Mov Capacity-2 Maneuver	581	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	757	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	581	911	1479	-
HCM Lane V/C Ratio	-	-	0.026	0.017	-	-
HCM Control Delay (s)	-	-	11.4	9	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.081	0.051	0	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	245	52	8	212	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976					
Flt Protected			0.950			
Satd. Flow (prot)	1863	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1863	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	266	57	9	230	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	323	0	9	230	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	245	52	8	212	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	266	57	9	230	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	323	0	543	295
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	248	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1237	-	431	714
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	740	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1237	-	428	714
Mov Capacity-2 Maneuver	-	-	-	-	428	-
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	735	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	0
HCM LOS			A

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1237	-
HCM Lane V/C Ratio	+	-	-	0.007	-
HCM Control Delay (s)	0	-	-	7.931	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.021	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	515	135	25	428	28	87	126	39	51	139	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.979			0.980	
Flt Protected		0.998			0.997			0.983			0.989	
Satd. Flow (prot)	0	3214	0	0	3247	0	0	2021	0	0	2032	0
Flt Permitted		0.916			0.890			0.805			0.871	
Satd. Flow (perm)	0	2950	0	0	2899	0	0	1655	0	0	1789	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			8			10			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	30	560	147	27	465	30	95	137	42	55	151	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	737	0	0	522	0	0	274	0	0	242	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

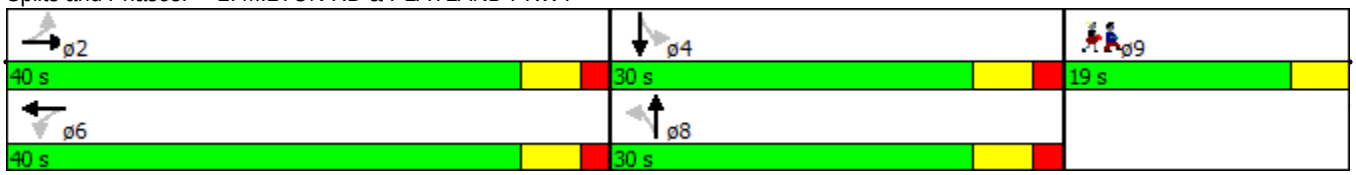
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		19.7			19.7			15.2			15.2	
Actuated g/C Ratio		0.39			0.39			0.30			0.30	
v/c Ratio		0.63			0.46			0.54			0.44	
Control Delay		15.9			14.3			21.1			18.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.9			14.3			21.1			18.9	
LOS		B			B			C			B	
Approach Delay		15.9			14.3			21.1			18.9	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		65			44			47			40	
Queue Length 95th (ft)		228			159			207			177	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2208			2161			875			945	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.24			0.31			0.26	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 50.4
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 16.7 — Intersection LOS: B
Intersection Capacity Utilization 69.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

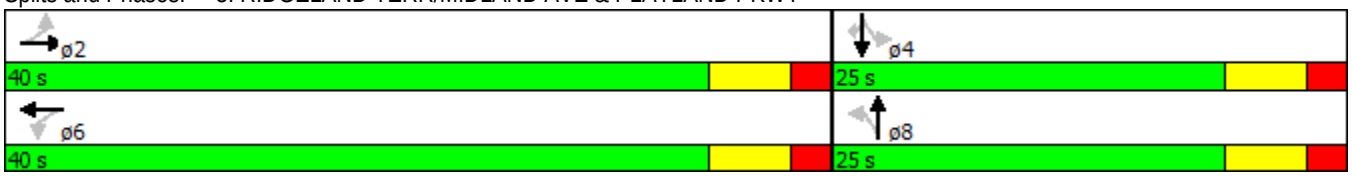
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	581	5	0	422	16	3	2	0	45	4	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.995							0.850
Flt Protected		0.998						0.971			0.956	
Satd. Flow (prot)	0	3227	0	0	3352	0	0	1730	0	0	1843	1639
Flt Permitted		0.934						0.785			0.739	
Satd. Flow (perm)	0	3021	0	0	3352	0	0	1399	0	0	1425	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			8							61
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	632	5	0	459	17	3	2	0	49	4	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	658	0	0	476	0	0	5	0	0	53	61
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.4			26.4			8.9			10.2	10.2
Actuated g/C Ratio		0.67			0.67			0.23			0.26	0.26
v/c Ratio		0.32			0.21			0.02			0.14	0.13
Control Delay		6.2			5.5			13.8			14.4	6.1
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.2			5.5			13.8			14.4	6.1
LOS		A			A			B			B	A
Approach Delay		6.2			5.5			13.8			10.0	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		48			31			1			8	0
Queue Length 95th (ft)		76			51			8			37	23
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2662			2955			689			701	838
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		0.25			0.16			0.01			0.08	0.07

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 39.2	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



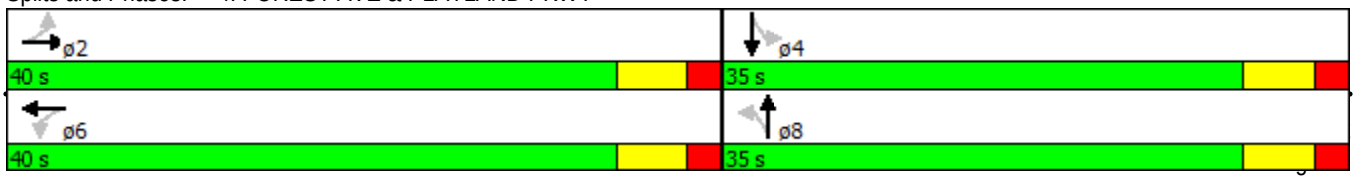
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	463	80	11	329	30	59	141	19	22	155	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.988			0.988			0.970	
Flt Protected		0.993			0.999			0.987			0.995	
Satd. Flow (prot)	0	3266	0	0	3211	0	0	1938	0	0	1858	0
Flt Permitted		0.831			0.926			0.857			0.946	
Satd. Flow (perm)	0	2733	0	0	2977	0	0	1682	0	0	1766	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											22	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	90	503	87	12	358	33	64	153	21	24	168	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	680	0	0	403	0	0	238	0	0	246	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.9			16.9			13.1			13.1	
Actuated g/C Ratio		0.40			0.40			0.31			0.31	
v/c Ratio		0.62			0.34			0.46			0.44	
Control Delay		13.8			10.5			15.2			13.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.8			10.5			15.2			13.5	
LOS		B			B			B			B	
Approach Delay		13.8			10.5			15.2			13.5	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		56			28			40			37	
Queue Length 95th (ft)		145			78			106			101	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2260			2462			1186			1252	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.30			0.16			0.20			0.20	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 42.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 13.1 — Intersection LOS: B
Intersection Capacity Utilization 69.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

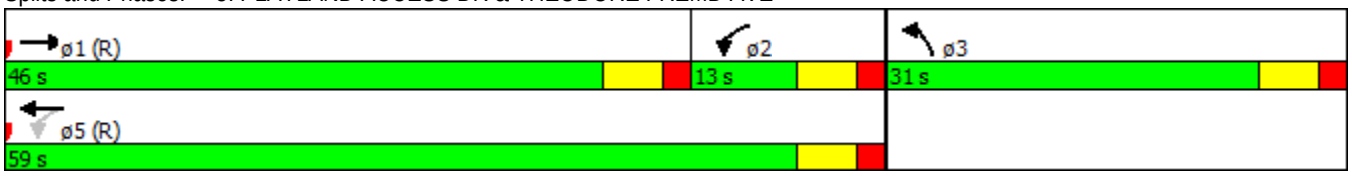


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	141	81	49	144	87	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.951				0.949	
Flt Protected			0.950		0.970	
Satd. Flow (prot)	1776	0	1743	1835	1706	0
Flt Permitted			0.586		0.970	
Satd. Flow (perm)	1776	0	1075	1835	1706	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	41					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	153	88	53	157	95	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	241	0	53	157	153	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.30		0.08	0.15	0.32	
Control Delay	14.3		8.4	8.8	28.1	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	14.3		8.4	8.8	28.1	
LOS	B		A	A	C	
Approach Delay	14.3			8.7	28.1	
Approach LOS	B			A	C	
Queue Length 50th (ft)	69		12	37	69	
Queue Length 95th (ft)	122		27	65	122	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		685	1080	473	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.30		0.08	0.15	0.32	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 38.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	139	15	3	160	19	17	39	7	37	67	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.984			0.984				0.850
Flt Protected	0.950			0.950				0.987			0.983	
Satd. Flow (prot)	1752	1916	0	1635	1793	0	0	1910	0	0	2127	1839
Flt Permitted	0.635			0.651				0.912			0.877	
Satd. Flow (perm)	1171	1916	0	1120	1793	0	0	1765	0	0	1898	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		11										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	54	151	16	3	174	21	18	42	8	40	73	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	167	0	3	195	0	0	68	0	0	113	39
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.10	0.18		0.01	0.23			0.12			0.19	0.06
Control Delay	10.1	9.9		9.3	11.1			16.5			17.2	2.4
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.1	9.9		9.3	11.1			16.5			17.2	2.4
LOS	B	A		A	B			B			B	A
Approach Delay		10.0			11.0			16.5			13.4	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	11	33		1	43			19			32	0
Queue Length 95th (ft)	29	64		4	79			44			66	10
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	548	903		525	840			551			593	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.10	0.18		0.01	0.23			0.12			0.19	0.06

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.23
Intersection Signal Delay: 11.8 — Intersection LOS: B
Intersection Capacity Utilization 40.5% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	0	10	129	4	159	3	38	27	21	156	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.926			0.946			0.998	
Flt Protected	0.950				0.978			0.998			0.994	
Satd. Flow (prot)	1840	1702	0	0	1883	0	0	1750	0	0	1829	0
Flt Permitted	0.950				0.978			0.998			0.994	
Satd. Flow (perm)	1840	1702	0	0	1883	0	0	1750	0	0	1829	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	0	11	140	4	173	3	41	29	23	170	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	11	0	0	317	0	0	73	0	0	196	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 46.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	0	10	129	4	159	3	38	27	21	156	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	11	140	4	173	3	41	29	23	170	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	368	294	171	285	281	56	173	0	0	71	0	0
Stage 1	217	217	-	63	63	-	-	-	-	-	-	-
Stage 2	151	77	-	222	218	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	693	703	907	636	599	1006	1404	-	-	1529	-	-
Stage 1	865	797	-	938	834	-	-	-	-	-	-	-
Stage 2	911	860	-	752	697	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	562	690	907	619	588	1006	1404	-	-	1529	-	-
Mov Capacity-2 Maneuver	562	690	-	619	588	-	-	-	-	-	-	-
Stage 1	863	783	-	936	832	-	-	-	-	-	-	-
Stage 2	749	858	-	730	685	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	12.7	0.3	0.9
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1404	-	-	562	813	782	1529	-	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.016	0.406	0.015	-	-
HCM Control Delay (s)	7.57	0	-	11.5	9.5	12.7	7.39	0	-
HCM Lane LOS	A	A		B	A	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.027	0.05	1.982	0.045	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	8	155	89	59	194	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.946		0.951	
Flt Protected		0.997			0.969	
Satd. Flow (prot)	0	2011	1851	0	1717	0
Flt Permitted		0.997			0.969	
Satd. Flow (perm)	0	2011	1851	0	1717	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	168	97	64	211	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	177	161	0	332	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	8	155	89	59	194	111
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	168	97	64	211	121

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	161	0	-	0	315	129
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	186	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1418	-	-	-	678	921
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	846	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1418	-	-	-	673	921
Mov Capacity-2 Maneuver	-	-	-	-	673	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13.6
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1418	-	-	-	746
HCM Lane V/C Ratio	0.006	-	-	-	0.444
HCM Control Delay (s)	7.554	0	-	-	13.6
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.019	-	-	-	2.298

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	268	81	109	73	12	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.946		0.897	
Flt Protected		0.963			0.988	
Satd. Flow (prot)	0	1885	1908	0	1626	0
Flt Permitted		0.963			0.988	
Satd. Flow (perm)	0	1885	1908	0	1626	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	291	88	118	79	13	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	379	197	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	268	81	109	73	12	39
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	291	88	118	79	13	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	198	0	-	0	829	158
Stage 1	-	-	-	-	158	-
Stage 2	-	-	-	-	671	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1375	-	-	-	297	876
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	454	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1375	-	-	-	231	876
Mov Capacity-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	353	-

Approach	EB	WB	SB
HCM Control Delay, s	6.4	0	12.6
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1375	-	-	-	529
HCM Lane V/C Ratio	0.212	-	-	-	0.105
HCM Control Delay (s)	8.321	0	-	-	12.6
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.802	-	-	-	0.349

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	27	24	92	0	0	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	26	100	0	0	170
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	26	100	0	0	170
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	27	24	92	0	0	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	26	100	0	0	170

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	270	100	0	0	100	0
Stage 1	100	-	-	-	-	-
Stage 2	170	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	610	927	-	-	1493	-
Stage 1	869	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	610	927	-	-	1493	-
Mov Capacity-2 Maneuver	610	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	775	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	610	927	1493	-
HCM Lane V/C Ratio	-	-	0.048	0.028	-	-
HCM Control Delay (s)	-	-	11.2	9	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.151	0.087	0	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	267	45	3	241	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980					
Flt Protected			0.950			
Satd. Flow (prot)	1871	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1871	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	290	49	3	262	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	339	0	3	262	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	267	45	3	241	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	290	49	3	262	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	339	0	583	315
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	268	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1220	-	404	694
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	721	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1220	-	403	694
Mov Capacity-2 Maneuver	-	-	-	-	403	-
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	719	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1220	-
HCM Lane V/C Ratio	+	-	-	0.003	-
HCM Control Delay (s)	0	-	-	7.959	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.008	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	310	106	41	389	24	109	133	27	29	180	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00						1.00	
Frt		0.965			0.992			0.986			0.981	
Flt Protected		0.996			0.996			0.980			0.994	
Satd. Flow (prot)	0	3247	0	0	3178	0	0	2044	0	0	2053	0
Flt Permitted		0.881			0.868			0.770			0.930	
Satd. Flow (perm)	0	2872	0	0	2770	0	0	1606	0	0	1921	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			7			6			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						7						2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	1%	3%	4%	7%	2%	1%	0%	5%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	38	333	114	44	418	26	117	143	29	31	194	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	485	0	0	488	0	0	289	0	0	262	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

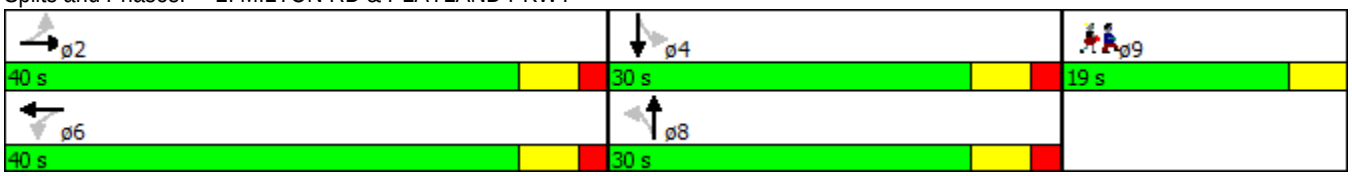
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		17.1			17.1			15.9			15.9	
Actuated g/C Ratio		0.35			0.35			0.33			0.33	
v/c Ratio		0.46			0.50			0.54			0.41	
Control Delay		14.4			16.4			18.9			15.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.4			16.4			18.9			15.8	
LOS		B			B			B			B	
Approach Delay		14.4			16.4			18.9			15.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		38			44			50			43	
Queue Length 95th (ft)		138			153			192			163	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2188			2099			861			1031	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			0.23			0.34			0.25	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 48.2
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 16.1 Intersection LOS: B
Intersection Capacity Utilization 73.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	321	4	0	383	22	5	2	0	33	1	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00							0.99
Frt		0.998			0.992							0.850
Flt Protected		0.994						0.964			0.954	
Satd. Flow (prot)	0	3246	0	0	3253	0	0	1752	0	0	1876	1639
Flt Permitted		0.867						0.776			0.726	
Satd. Flow (perm)	0	2832	0	0	3253	0	0	1411	0	0	1428	1616
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			13							78
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%	0%	5%	0%	0%	0%	0%	0%	0%	2%
Adj. Flow (vph)	48	378	5	0	451	26	6	2	0	39	1	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	431	0	0	477	0	0	8	0	0	40	78
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		25.0			25.0			9.6			10.3	10.3
Actuated g/C Ratio		0.59			0.59			0.23			0.24	0.24
v/c Ratio		0.26			0.25			0.03			0.12	0.17
Control Delay		6.7			6.4			13.7			14.6	5.9
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.7			6.4			13.7			14.6	5.9
LOS		A			A			B			B	A
Approach Delay		6.7			6.4			13.7			8.8	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		29			31			1			6	0
Queue Length 95th (ft)		45			47			10			28	23
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2331			2680			649			656	785
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		0.18			0.18			0.01			0.06	0.10

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 42.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.26
Intersection Signal Delay: 6.8 Intersection LOS: A

Intersection Capacity Utilization 49.0% ICU Level of Service A

Analysis Period (min) 15

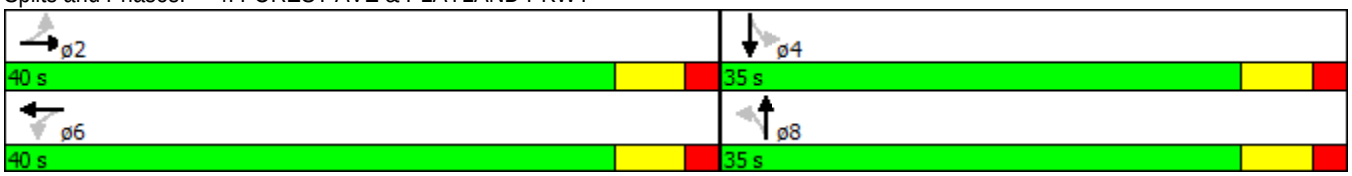
Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	87	194	73	11	241	23	83	156	6	13	119	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00						0.99	
Frt		0.969			0.987			0.997			0.948	
Flt Protected		0.988			0.998			0.983			0.997	
Satd. Flow (prot)	0	3057	0	0	3239	0	0	1954	0	0	1776	0
Flt Permitted		0.777			0.930			0.820			0.964	
Satd. Flow (perm)	0	2404	0	0	3018	0	0	1630	0	0	1717	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								2			49	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			9			6						7
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	11%	2%	0%	0%	8%	3%	1%	0%	0%	2%	7%
Adj. Flow (vph)	105	234	88	13	290	28	100	188	7	16	143	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	427	0	0	331	0	0	295	0	0	258	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			13.6			13.6	
Actuated g/C Ratio		0.38			0.38			0.32			0.32	
v/c Ratio		0.46			0.29			0.56			0.44	
Control Delay		12.6			10.7			16.0			11.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			10.7			16.0			11.3	
LOS		B			B			B			B	
Approach Delay		12.6			10.7			16.0			11.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		34			24			52			35	
Queue Length 95th (ft)		81			60			107			78	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		1988			2496			1150			1225	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.21			0.13			0.26			0.21	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 42	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



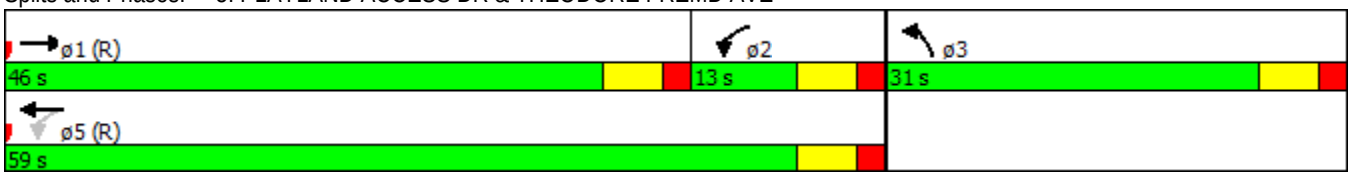
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	212	121	57	211	161	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.951				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1741	0	1778	1835	1684	0
Flt Permitted			0.471		0.974	
Satd. Flow (perm)	1741	0	881	1835	1684	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	41					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	2%	0%	2%	3%	2%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	228	130	61	227	173	146
Shared Lane Traffic (%)						
Lane Group Flow (vph)	358	0	61	227	319	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.45		0.10	0.21	0.68	
Control Delay	17.4		8.8	9.3	37.6	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	17.4		8.8	9.3	37.6	
LOS	B		A	A	D	
Approach Delay	17.4			9.2	37.6	
Approach LOS	B			A	D	
Queue Length 50th (ft)	120		14	56	161	
Queue Length 95th (ft)	194		30	92	256	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	796		588	1080	467	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.45		0.10	0.21	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 21.6 Intersection LOS: C
Intersection Capacity Utilization 54.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	133	214	38	23	219	51	15	64	14	42	101	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			1.00				0.98
Frt		0.977			0.972			0.980				0.850
Flt Protected	0.950			0.950				0.992			0.986	
Satd. Flow (prot)	1752	1872	0	1530	1771	0	0	1884	0	0	2115	1876
Flt Permitted	0.588			0.599				0.942			0.885	
Satd. Flow (perm)	1084	1872	0	965	1771	0	0	1789	0	0	1899	1833
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		19										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)						1			2			2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	3%	6%	9%	1%	4%	7%	3%	0%	5%	2%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	137	221	39	24	226	53	15	66	14	43	104	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	260	0	24	279	0	0	95	0	0	147	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.27	0.29		0.05	0.34			0.17			0.25	0.09
Control Delay	12.2	10.8		9.8	12.2			17.0			17.8	4.1
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	12.2	10.8		9.8	12.2			17.0			17.8	4.1
LOS	B	B		A	B			B			B	A
Approach Delay		11.3			12.0			17.0			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	31	54		5	64			27			42	0
Queue Length 95th (ft)	64	97		16	113			57			82	17
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	508	887		452	830			559			593	619
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.27	0.29		0.05	0.34			0.17			0.25	0.09

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.34
Intersection Signal Delay: 12.6 — Intersection LOS: B
Intersection Capacity Utilization 66.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	9	85	133	21	259	11	35	17	37	299	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.915			0.963			0.996	
Flt Protected	0.950				0.984			0.991			0.995	
Satd. Flow (prot)	1877	1765	0	0	1910	0	0	1804	0	0	1860	0
Flt Permitted	0.950				0.984			0.991			0.995	
Satd. Flow (perm)	1877	1765	0	0	1910	0	0	1804	0	0	1860	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	4%
Adj. Flow (vph)	42	10	93	146	23	285	12	38	19	41	329	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	103	0	0	454	0	0	69	0	0	382	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	13.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	38	9	85	133	21	259	11	35	17	37	299	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	1	0	4
Mvmt Flow	42	10	93	146	23	285	12	38	19	41	329	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	642	497	335	540	494	48	341	0	0	57	0	0
Stage 1	416	416	-	72	72	-	-	-	-	-	-	-
Stage 2	226	81	-	468	422	-	-	-	-	-	-	-
Follow-up Headway	3.5	4.009	3.3	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Capacity-1 Maneuver	519	594	767	417	441	1023	1229	-	-	1554	-	-
Stage 1	743	714	-	931	829	-	-	-	-	-	-	-
Stage 2	864	860	-	536	551	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	347	569	767	350	422	1023	1229	-	-	1554	-	-
Mov Capacity-2 Maneuver	347	569	-	350	422	-	-	-	-	-	-	-
Stage 1	736	690	-	922	821	-	-	-	-	-	-	-
Stage 2	600	851	-	449	533	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	26.6	1.4	0.8
HCM LOS	B	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1229	-	-	347	654	605	1554	-	-
HCM Lane V/C Ratio	0.01	-	-	0.08	0.179	0.75	0.026	-	-
HCM Control Delay (s)	7.958	0	-	16.3	11.7	26.6	7.379	0	-
HCM Lane LOS	A	A		C	B	D	A	A	
HCM 95th %tile Q(veh)	0.03	-	-	0.26	0.649	6.66	0.081	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	189	104	49	393	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.957		0.967	
Flt Protected		0.997			0.964	
Satd. Flow (prot)	0	1977	1897	0	1754	0
Flt Permitted		0.997			0.964	
Satd. Flow (perm)	0	1977	1897	0	1754	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	1%	0%	1%	1%
Adj. Flow (vph)	14	210	116	54	437	141
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	224	170	0	578	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	21

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	189	104	49	393	127
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, %	-	-3	3	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	4	1	0	1	1
Mvmt Flow	14	210	116	54	437	141

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	170	0	-	0	382	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	239	-
Follow-up Headway	2.2	-	-	-	3.509	3.309
Pot Capacity-1 Maneuver	1420	-	-	-	622	907
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	803	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1420	-	-	-	615	907
Mov Capacity-2 Maneuver	-	-	-	-	615	-
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	794	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	35.2
HCM LOS			E

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1420	-	-	-	667
HCM Lane V/C Ratio	0.01	-	-	-	0.866
HCM Control Delay (s)	7.561	0	-	-	35.2
HCM Lane LOS	A	A			E
HCM 95th %tile Q(veh)	0.031	-	-	-	10.164

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	451	131	107	129	27	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.926		0.915	
Flt Protected		0.963			0.982	
Satd. Flow (prot)	0	1908	1876	0	1513	0
Flt Permitted		0.963			0.982	
Satd. Flow (perm)	0	1908	1876	0	1513	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Confl. Peds. (#/hr)				1		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	1%	0%	1%	2%	0%	0%
Parking (#/hr)					0	
Adj. Flow (vph)	507	147	120	145	30	51
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	654	265	0	81	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.17	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	451	131	107	129	27	45
Conflicting Peds, #/hr	0	0	0	1	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, %	-	3	-3	-	3	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	0	1	2	0	0
Mvmt Flow	507	147	120	145	30	51

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	265	0	-	0	1354	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	1161	-
Follow-up Headway	2.209	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	1305	-	-	-	133	840
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	248	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1305	-	-	-	77	840
Mov Capacity-2 Maneuver	-	-	-	-	77	-
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	143	-

Approach	EB	WB	SB
HCM Control Delay, s	7.4	0	41.1
HCM LOS			E

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1305	-	-	-	178
HCM Lane V/C Ratio	0.388	-	-	-	0.454
HCM Control Delay (s)	9.499	0	-	-	41.1
HCM Lane LOS	A	A			E
HCM 95th %tile Q(veh)	1.869	-	-	-	2.127

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	28	29	159	0	0	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	1987	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	1987	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	3%	0%	0%	2%
Adj. Flow (vph)	29	31	167	0	0	220
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	31	167	0	0	220
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	28	29	159	0	0	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	29	31	167	0	0	220

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	387	167	0	0	167	0
Stage 1	167	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	490	839	-	-	1423	-
Stage 1	783	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	490	839	-	-	1423	-
Mov Capacity-2 Maneuver	490	-	-	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	718	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	490	839	1423	-
HCM Lane V/C Ratio	-	-	0.06	0.036	-	-
HCM Control Delay (s)	-	-	12.8	9.5	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.191	0.113	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	257	43	6	290	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.981					
Flt Protected			0.950			
Satd. Flow (prot)	1910	0	1760	1834	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1910	0	1760	1834	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	262	44	6	296	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	306	0	6	296	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	257	43	6	290	0	0
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	262	44	6	296	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	306	0	592	284
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	308	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1266	-	401	730
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	688	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1266	-	398	730
Mov Capacity-2 Maneuver	-	-	-	-	398	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	683	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1266	-
HCM Lane V/C Ratio	+	-	-	0.005	-
HCM Control Delay (s)	0	-	-	7.857	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.015	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	328	103	54	334	43	101	171	27	34	201	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00						1.00	
Frt		0.967			0.985			0.988			0.978	
Flt Protected		0.995			0.994			0.983			0.994	
Satd. Flow (prot)	0	3251	0	0	3200	0	0	2051	0	0	2056	0
Flt Permitted		0.862			0.820			0.768			0.924	
Satd. Flow (perm)	0	2816	0	0	2640	0	0	1602	0	0	1911	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						20						10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	1%	2%	2%	3%	1%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	48	360	113	59	367	47	111	188	30	37	221	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	521	0	0	473	0	0	329	0	0	309	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

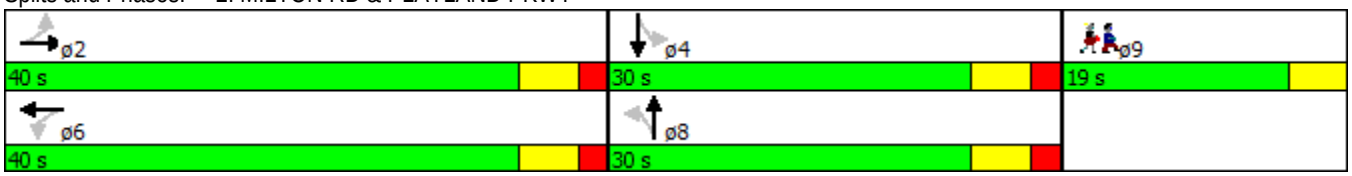
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		17.0			17.0			19.7			19.7	
Actuated g/C Ratio		0.33			0.33			0.38			0.38	
v/c Ratio		0.57			0.55			0.54			0.43	
Control Delay		19.0			19.0			18.3			16.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.0			19.0			18.3			16.1	
LOS		B			B			B			B	
Approach Delay		19.0			19.0			18.3			16.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		60			54			59			54	
Queue Length 95th (ft)		166			152			228			202	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		1947			1825			785			933	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.26			0.42			0.33	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 51.9
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 18.3 — Intersection LOS: B
Intersection Capacity Utilization 76.2% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

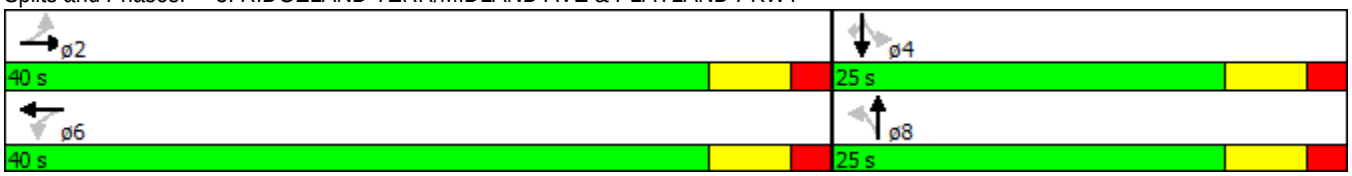
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	358	2	0	384	25	1	3	0	44	2	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991							0.850
Flt Protected		0.996						0.988			0.954	
Satd. Flow (prot)	0	3256	0	0	3343	0	0	1796	0	0	1824	1639
Flt Permitted		0.903						0.899			0.732	
Satd. Flow (perm)	0	2952	0	0	3343	0	0	1634	0	0	1399	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			15							51
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	33	393	2	0	422	27	1	3	0	48	2	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	428	0	0	449	0	0	4	0	0	50	51
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.8			26.8			8.8			10.2	10.2
Actuated g/C Ratio		0.68			0.68			0.22			0.26	0.26
v/c Ratio		0.21			0.20			0.01			0.14	0.11
Control Delay		5.6			5.3			13.8			14.6	6.4
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.6			5.3			13.8			14.6	6.4
LOS		A			A			B			B	A
Approach Delay		5.6			5.3			13.8			10.4	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		29			28			1			8	0
Queue Length 95th (ft)		47			47			7			35	21
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2579			2923			797			683	826
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		0.17			0.15			0.01			0.07	0.06

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 39.5
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.21
Intersection Signal Delay: 6.0 — Intersection LOS: A
Intersection Capacity Utilization 48.3% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

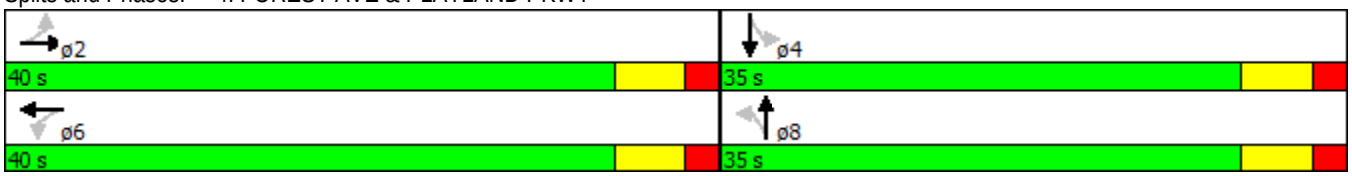


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	67	244	91	12	262	25	70	131	14	21	137	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			1.00			0.99	
Frt		0.966			0.987			0.991			0.956	
Flt Protected		0.992			0.998			0.984			0.995	
Satd. Flow (prot)	0	3226	0	0	3241	0	0	1920	0	0	1844	0
Flt Permitted		0.832			0.929			0.824			0.949	
Satd. Flow (perm)	0	2706	0	0	3017	0	0	1608	0	0	1759	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								6			38	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			27			7			3			11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	2%	0%	0%	7%	5%	2%	0%	0%	1%	0%
Adj. Flow (vph)	75	274	102	13	294	28	79	147	16	24	154	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	451	0	0	335	0	0	242	0	0	265	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			12.7			12.7	
Actuated g/C Ratio		0.39			0.39			0.31			0.31	
v/c Ratio		0.43			0.28			0.48			0.46	
Control Delay		11.5			10.2			14.6			12.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			10.2			14.6			12.5	
LOS		B			B			B			B	
Approach Delay		11.5			10.2			14.6			12.5	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		33			23			40			38	
Queue Length 95th (ft)		91			65			94			92	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2289			2552			1161			1279	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.20			0.13			0.21			0.21	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 41.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



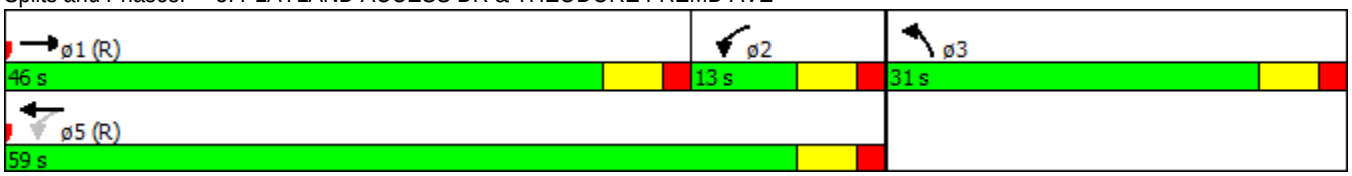
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	205	114	55	197	113	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.952				0.943	
Flt Protected			0.950		0.972	
Satd. Flow (prot)	1762	0	1743	1835	1673	0
Flt Permitted			0.442		0.972	
Satd. Flow (perm)	1762	0	811	1835	1673	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	40					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	1%	4%	2%	2%	4%	3%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	250	139	67	240	138	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	389	0	67	240	238	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.48		0.12	0.22	0.51	
Control Delay	18.2		9.1	9.4	32.0	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	18.2		9.1	9.4	32.0	
LOS	B		A	A	C	
Approach Delay	18.2			9.3	32.0	
Approach LOS	B			A	C	
Queue Length 50th (ft)	135		15	59	114	
Queue Length 95th (ft)	187		29	86	167	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	805		550	1080	464	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.48		0.12	0.22	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 18.8 Intersection LOS: B
Intersection Capacity Utilization 47.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	227	35	5	205	33	18	49	16	47	72	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			1.00				0.98
Frt		0.980			0.979			0.974				0.850
Flt Protected	0.950			0.950				0.989			0.981	
Satd. Flow (prot)	1769	1926	0	1668	1776	0	0	1899	0	0	2148	1876
Flt Permitted	0.598			0.584				0.920			0.845	
Satd. Flow (perm)	1114	1926	0	1025	1776	0	0	1766	0	0	1850	1836
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)						1			3			1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	0%	0%	2%	3%	6%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	79	249	38	5	225	36	20	54	18	52	79	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	287	0	5	261	0	0	92	0	0	131	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.15	0.32		0.01	0.31			0.17			0.23	0.06
Control Delay	10.7	11.9		9.2	11.9			17.0			17.6	15.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.7	11.9		9.2	11.9			17.0			17.6	15.9
LOS	B	B		A	B			B			B	B
Approach Delay		11.6			11.9			17.0			17.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	17	66		1	60			26			37	9
Queue Length 95th (ft)	39	113		6	105			56			75	27
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	522	902		480	832			551			578	573
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.15	0.32		0.01	0.31			0.17			0.23	0.06

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.32
Intersection Signal Delay: 13.3 — Intersection LOS: B
Intersection Capacity Utilization 63.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	2	22	134	11	212	3	32	19	45	195	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.861			0.920			0.952			0.996	
Flt Protected	0.950				0.982			0.998			0.991	
Satd. Flow (prot)	1877	1758	0	0	1845	0	0	1796	0	0	1828	0
Flt Permitted	0.950				0.982			0.998			0.991	
Satd. Flow (perm)	1877	1758	0	0	1845	0	0	1796	0	0	1828	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Confl. Peds. (#/hr)									2			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	4%	0%	4%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	14	2	26	156	13	247	3	37	22	52	227	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	28	0	0	416	0	0	62	0	0	287	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	2	22	134	11	212	3	32	19	45	195	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	4	0	4	0	0	0	0	2	0
Mvmt Flow	14	2	26	156	13	247	3	37	22	52	227	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	520	401	233	404	395	48	235	0	0	59	0	0
Stage 1	335	335	-	55	55	-	-	-	-	-	-	-
Stage 2	185	66	-	349	340	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.536	4	3.336	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	592	646	854	517	510	1011	1344	-	-	1558	-	-
Stage 1	793	750	-	944	845	-	-	-	-	-	-	-
Stage 2	892	869	-	626	607	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	425	620	853	484	490	1011	1342	-	-	1558	-	-
Mov Capacity-2 Maneuver	425	620	-	484	490	-	-	-	-	-	-	-
Stage 1	791	722	-	942	843	-	-	-	-	-	-	-
Stage 2	663	867	-	581	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	17.3	0.4	1.3
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1342	-	-	425	729	701	1558	-	-
HCM Lane V/C Ratio	0.003	-	-	0.022	0.045	0.592	0.034	-	-
HCM Control Delay (s)	7.69	0	-	13.7	10.2	17.3	7.391	0	-
HCM Lane LOS	A	A		B	B	C	A	A	
HCM 95th %tile Q(veh)	0.008	-	-	0.067	0.14	3.925	0.104	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	6	207	120	50	248	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.960		0.957	
Flt Protected		0.999			0.967	
Satd. Flow (prot)	0	2016	1903	0	1712	0
Flt Permitted		0.999			0.967	
Satd. Flow (perm)	0	2016	1903	0	1712	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Confl. Peds. (#/hr)				3		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	1%	0%	3%	2%
Adj. Flow (vph)	7	227	132	55	273	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	234	187	0	399	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	6	207	120	50	248	115
Conflicting Peds, #/hr	0	0	0	3	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, %	-	-3	3	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	0	3	2
Mvmt Flow	7	227	132	55	273	126

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	187	0	-	0	400	159
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	241	-
Follow-up Headway	2.2	-	-	-	3.527	3.318
Pot Capacity-1 Maneuver	1399	-	-	-	604	886
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	797	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1399	-	-	-	600	886
Mov Capacity-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.1
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1399	-	-	-	668
HCM Lane V/C Ratio	0.005	-	-	-	0.597
HCM Control Delay (s)	7.585	0	-	-	18.1
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	0.014	-	-	-	3.977

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	357	98	130	106	20	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.939		0.910	
Flt Protected		0.962			0.984	
Satd. Flow (prot)	0	1887	1912	0	1632	0
Flt Permitted		0.962			0.984	
Satd. Flow (perm)	0	1887	1912	0	1632	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	1%	1%	1%	8%	0%
Adj. Flow (vph)	397	109	144	118	22	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	506	262	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 51.8%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	357	98	130	106	20	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, %	-	3	-3	-	3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	1	8	0
Mvmt Flow	397	109	144	118	22	44

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	262	0	-	0	1105	203
Stage 1	-	-	-	-	203	-
Stage 2	-	-	-	-	902	-
Follow-up Headway	2.218	-	-	-	3.572	3.3
Pot Capacity-1 Maneuver	1302	-	-	-	189	829
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	332	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1302	-	-	-	128	829
Mov Capacity-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	224	-

Approach	EB	WB	SB
HCM Control Delay, s	7	0	20.9
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1302	-	-	-	293
HCM Lane V/C Ratio	0.305	-	-	-	0.228
HCM Control Delay (s)	8.972	0	-	-	20.9
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	1.3	-	-	-	0.858

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	30	31	117	0	0	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Confl. Peds. (#/hr)		8			6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	0%	0%	2%
Adj. Flow (vph)	33	34	129	0	0	227
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	34	129	0	0	227
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	30	31	117	0	0	207
Conflicting Peds, #/hr	0	8	0	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	33	34	129	0	0	227

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	364	143	0	0	137	0
Stage 1	137	-	-	-	-	-
Stage 2	227	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	512	871	-	-	1459	-
Stage 1	823	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	507	858	-	-	1450	-
Mov Capacity-2 Maneuver	507	-	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	710	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	507	858	1450	-
HCM Lane V/C Ratio	-	-	0.065	0.04	-	-
HCM Control Delay (s)	-	-	12.6	9.4	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.208	0.124	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	380	34	7	298	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.989					
Flt Protected			0.950			
Satd. Flow (prot)	1926	0	1760	1834	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1926	0	1760	1834	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		9				
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	400	36	7	314	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	436	0	7	314	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 25.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	380	34	7	298	0	0
Conflicting Peds, #/hr	0	9	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	400	36	7	314	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	436	0	746	418
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	328	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1134	-	312	603
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	671	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1134	-	308	603
Mov Capacity-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	662	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1134	-
HCM Lane V/C Ratio	+	-	-	0.006	-
HCM Control Delay (s)	0	-	-	8.195	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.02	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	296	113	37	334	24	102	135	22	26	178	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00						1.00	
Frt		0.962			0.991			0.989			0.986	
Flt Protected		0.996			0.995			0.981			0.994	
Satd. Flow (prot)	0	3223	0	0	3261	0	0	2027	0	0	2046	0
Flt Permitted		0.878			0.866			0.783			0.933	
Satd. Flow (perm)	0	2841	0	0	2838	0	0	1618	0	0	1921	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		61			9			5			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Confl. Peds. (#/hr)						15						1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	3%	1%	0%	0%	3%	12%	13%	1%	0%
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	43	329	126	41	371	27	113	150	24	29	198	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	498	0	0	439	0	0	287	0	0	253	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

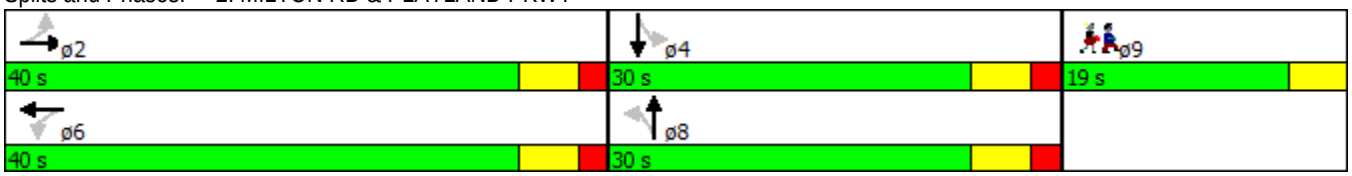
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		16.9			16.9			15.4			15.4	
Actuated g/C Ratio		0.36			0.36			0.32			0.32	
v/c Ratio		0.48			0.43			0.54			0.40	
Control Delay		14.4			15.5			18.8			15.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.4			15.5			18.8			15.7	
LOS		B			B			B			B	
Approach Delay		14.4			15.5			18.8			15.7	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		37			37			50			41	
Queue Length 95th (ft)		142			136			186			154	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		2194			2179			878			1043	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.23			0.20			0.33			0.24	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 47.5
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 15.8 Intersection LOS: B
Intersection Capacity Utilization 71.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	315	1	0	357	16	1	1	0	38	0	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00							
Frt					0.994							0.850
Flt Protected		0.996						0.976			0.950	
Satd. Flow (prot)	0	3181	0	0	3381	0	0	1774	0	0	1868	1623
Flt Permitted		0.899						0.818			0.757	
Satd. Flow (perm)	0	2871	0	0	3381	0	0	1487	0	0	1489	1623
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			10							50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Confl. Peds. (#/hr)						5			4			
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	8%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%	3%
Adj. Flow (vph)	34	380	1	0	430	19	1	1	0	46	0	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	415	0	0	449	0	0	2	0	0	46	45
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		27.6			27.6			8.8			10.2	10.2
Actuated g/C Ratio		0.69			0.69			0.22			0.25	0.25
v/c Ratio		0.21			0.19			0.01			0.12	0.10
Control Delay		5.5			5.2			14.0			14.6	6.1
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		5.5			5.2			14.0			14.6	6.1
LOS		A			A			B			B	A
Approach Delay		5.5			5.2			14.0			10.4	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		28			29			0			8	0
Queue Length 95th (ft)		42			43			4			30	16
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2471			2911			715			715	806
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		0.17			0.15			0.00			0.06	0.06

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 40.1
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.21
Intersection Signal Delay: 5.9 Intersection LOS: A

Intersection Capacity Utilization 48.6% ICU Level of Service A

Analysis Period (min) 15

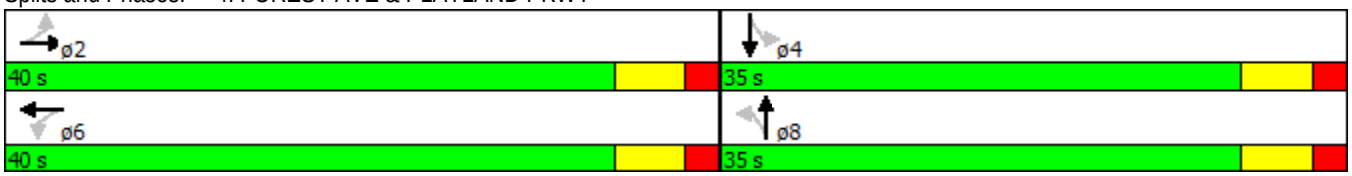
Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	210	80	13	232	24	75	128	8	18	110	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			1.00			0.99	
Frt		0.966			0.987			0.995			0.955	
Flt Protected		0.991			0.998			0.983			0.995	
Satd. Flow (prot)	0	3115	0	0	3218	0	0	1951	0	0	1833	0
Flt Permitted		0.829			0.925			0.821			0.948	
Satd. Flow (perm)	0	2606	0	0	2982	0	0	1629	0	0	1747	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								3			40	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Confl. Peds. (#/hr)			18			11			3			4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	7%	0%	0%	0%	14%	1%	2%	0%	0%	1%	2%
Adj. Flow (vph)	75	247	94	15	273	28	88	151	9	21	129	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	416	0	0	316	0	0	248	0	0	226	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		16.1			16.1			12.8			12.8	
Actuated g/C Ratio		0.39			0.39			0.31			0.31	
v/c Ratio		0.41			0.27			0.49			0.40	
Control Delay		11.5			10.2			14.8			11.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			10.2			14.8			11.2	
LOS		B			B			B			B	
Approach Delay		11.5			10.2			14.8			11.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		30			21			42			30	
Queue Length 95th (ft)		80			58			91			71	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2199			2517			1173			1268	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.19			0.13			0.21			0.18	

Intersection Summary	
Area Type: Other	
Cycle Length: 75	
Actuated Cycle Length: 41.2	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY



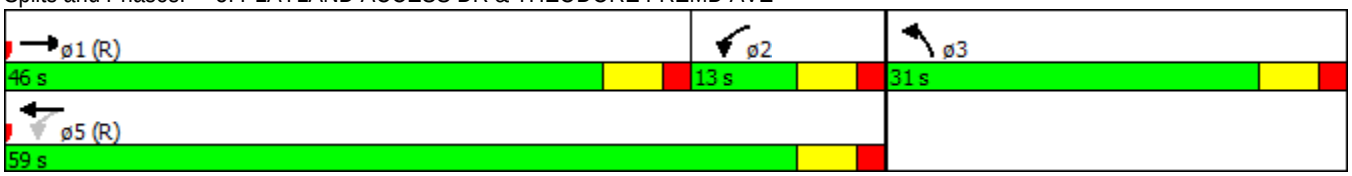
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	134	96	45	139	123	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					
Frt	0.944				0.953	
Flt Protected			0.950		0.969	
Satd. Flow (prot)	1751	0	1778	1853	1723	0
Flt Permitted			0.575		0.969	
Satd. Flow (perm)	1751	0	1076	1853	1723	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	51					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	3%	0%	1%	2%	0%
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	147	105	49	153	135	73
Shared Lane Traffic (%)						
Lane Group Flow (vph)	252	0	49	153	208	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.31		0.07	0.14	0.44	
Control Delay	13.9		8.4	8.7	30.2	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	13.9		8.4	8.7	30.2	
LOS	B		A	A	C	
Approach Delay	13.9			8.6	30.2	
Approach LOS	B			A	C	
Queue Length 50th (ft)	70		11	36	97	
Queue Length 95th (ft)	123		25	63	162	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	806		688	1091	478	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.31		0.07	0.14	0.44	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 17.4 Intersection LOS: B
Intersection Capacity Utilization 42.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	148	25	6	161	21	5	49	10	47	59	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												0.98
Frt		0.979			0.983			0.979				0.850
Flt Protected	0.950			0.950				0.996			0.978	
Satd. Flow (prot)	1787	1924	0	1668	1801	0	0	1956	0	0	2112	1876
Flt Permitted	0.632			0.638				0.980			0.840	
Satd. Flow (perm)	1189	1924	0	1120	1801	0	0	1925	0	0	1814	1836
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		18										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Confl. Peds. (#/hr)												1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	1%	5%	0%	0%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	57	163	27	7	177	23	5	54	11	52	65	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	190	0	7	200	0	0	70	0	0	117	40
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.10	0.21		0.01	0.24			0.12			0.21	0.06
Control Delay	10.2	9.8		9.3	11.1			16.4			17.4	2.5
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.2	9.8		9.3	11.1			16.4			17.4	2.5
LOS	B	A		A	B			B			B	A
Approach Delay		9.9			11.1			16.4			13.6	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	12	37		1	44			19			33	0
Queue Length 95th (ft)	30	71		7	81			45			68	10
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	557	911		525	844			601			566	620
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.10	0.21		0.01	0.24			0.12			0.21	0.06

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.24
Intersection Signal Delay: 11.8 — Intersection LOS: B
Intersection Capacity Utilization 43.0% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	1	3	135	1	208	3	21	15	32	159	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.887			0.918			0.947			0.999	
Flt Protected	0.950				0.981			0.996			0.992	
Satd. Flow (prot)	1877	1811	0	0	1891	0	0	1783	0	0	1849	0
Flt Permitted	0.950				0.981			0.996			0.992	
Satd. Flow (perm)	1877	1811	0	0	1891	0	0	1783	0	0	1849	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Confl. Peds. (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	7	1	3	141	1	217	3	22	16	33	166	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	4	0	0	359	0	0	41	0	0	201	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	1	3	135	1	208	3	21	15	32	159	2
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	1	0	1	0	0	0	0	1	0
Mvmt Flow	7	1	3	141	1	217	3	22	16	33	166	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	379	278	168	272	271	30	169	0	0	38	0	0
Stage 1	234	234	-	36	36	-	-	-	-	-	-	-
Stage 2	145	44	-	236	235	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.509	4	3.309	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	689	717	915	652	611	1045	1421	-	-	1585	-	-
Stage 1	858	793	-	976	864	-	-	-	-	-	-	-
Stage 2	920	879	-	740	687	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	535	698	914	637	595	1045	1421	-	-	1585	-	-
Mov Capacity-2 Maneuver	535	698	-	637	595	-	-	-	-	-	-	-
Stage 1	856	774	-	974	862	-	-	-	-	-	-	-
Stage 2	727	877	-	720	671	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	12.5	0.6	1.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1421	-	-	535	698	834	1585	-	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.009	0.43	0.021	-	-
HCM Control Delay (s)	7.539	0	-	11.8	10.2	12.5	7.32	0	-
HCM Lane LOS	A	A		B	B	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.027	0.029	2.18	0.064	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	3	145	95	43	189	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.958		0.950	
Flt Protected		0.999			0.970	
Satd. Flow (prot)	0	2015	1912	0	1729	0
Flt Permitted		0.999			0.970	
Satd. Flow (perm)	0	2015	1912	0	1729	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Confl. Peds. (#/hr)				2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	3	165	108	49	215	127
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	168	157	0	342	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	3	145	95	43	189	112
Conflicting Peds, #/hr	0	0	0	2	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, %	-	-3	3	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	0	2	0
Mvmt Flow	3	165	108	49	215	127

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	157	0	-	0	304	132
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	172	-
Follow-up Headway	2.2	-	-	-	3.518	3.3
Pot Capacity-1 Maneuver	1435	-	-	-	688	923
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	858	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1435	-	-	-	687	923
Mov Capacity-2 Maneuver	-	-	-	-	687	-
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	856	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.6
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1435	-	-	-	759
HCM Lane V/C Ratio	0.002	-	-	-	0.451
HCM Control Delay (s)	7.515	0	-	-	13.6
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.007	-	-	-	2.355

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	247	87	106	90	12	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.938		0.902	
Flt Protected		0.964			0.987	
Satd. Flow (prot)	0	1883	1921	0	1666	0
Flt Permitted		0.964			0.987	
Satd. Flow (perm)	0	1883	1921	0	1666	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	3%	0%	0%	1%	0%	0%
Adj. Flow (vph)	305	107	131	111	15	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	412	242	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 42.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	247	87	106	90	12	32
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, %	-	3	-3	-	3	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	3	0	0	1	0	0
Mvmt Flow	305	107	131	111	15	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	242	0	-	0	903	186
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	717	-
Follow-up Headway	2.227	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	1319	-	-	-	267	848
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	432	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1319	-	-	-	201	848
Mov Capacity-2 Maneuver	-	-	-	-	201	-
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	326	-

Approach	EB	WB	SB
HCM Control Delay, s	6.3	0	14.1
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1319	-	-	-	452
HCM Lane V/C Ratio	0.231	-	-	-	0.12
HCM Control Delay (s)	8.548	0	-	-	14.1
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.896	-	-	-	0.406

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	22	25	99	0	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1933	1730	2047	0	0	1987
Flt Permitted	0.950					
Satd. Flow (perm)	1933	1730	2047	0	0	1987
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Confl. Peds. (#/hr)		2			2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	25	28	113	0	0	198
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	28	112	0	0	198
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 19.8%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	25	99	0	0	174
Conflicting Peds, #/hr	0	2	0	0	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	25	28	112	0	0	198

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	313	117	0	0	115	0
Stage 1	115	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	565	907	-	-	1487	-
Stage 1	853	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	564	903	-	-	1484	-
Mov Capacity-2 Maneuver	564	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	744	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	564	903	1484	-
HCM Lane V/C Ratio	-	-	0.044	0.031	-	-
HCM Control Delay (s)	-	-	11.7	9.1	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.139	0.097	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	289	36	6	250	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.985					
Flt Protected			0.950			
Satd. Flow (prot)	1918	0	1760	1853	1853	0
Flt Permitted			0.950			
Satd. Flow (perm)	1918	0	1760	1853	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Confl. Peds. (#/hr)		14				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	328	41	7	284	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	369	0	7	284	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	289	36	6	250	0	0
Conflicting Peds, #/hr	0	14	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	328	41	7	284	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	369	0	647	349
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	298	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1201	-	367	666
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	698	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1201	-	361	666
Mov Capacity-2 Maneuver	-	-	-	-	361	-
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	686	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1201	-
HCM Lane V/C Ratio	+	-	-	0.006	-
HCM Control Delay (s)	0	-	-	8.015	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.017	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	614	145	43	558	34	134	122	21	60	223	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.992			0.990			0.989	
Flt Protected		0.998			0.997			0.976			0.990	
Satd. Flow (prot)	0	3220	0	0	3251	0	0	2030	0	0	2052	0
Flt Permitted		0.904			0.775			0.666			0.885	
Satd. Flow (perm)	0	2917	0	0	2527	0	0	1385	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			7			5			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	32	667	158	47	607	37	146	133	23	65	242	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	857	0	0	691	0	0	302	0	0	333	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

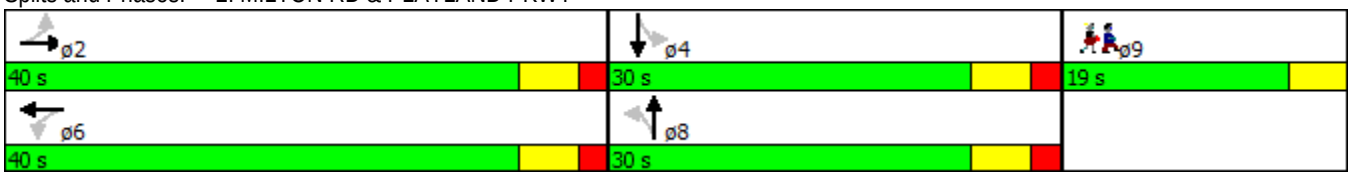
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		22.1			22.1			23.1			23.1	
Actuated g/C Ratio		0.37			0.37			0.38			0.38	
v/c Ratio		0.79			0.75			0.57			0.47	
Control Delay		23.2			23.2			23.8			19.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.2			23.2			23.8			19.8	
LOS		C			C			C			B	
Approach Delay		23.2			23.2			23.8			19.8	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		126			103			71			75	
Queue Length 95th (ft)		281			235			#292			258	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		1748			1505			584			772	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.46			0.52			0.43	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 60.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 22.8 Intersection LOS: C
Intersection Capacity Utilization 87.4% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

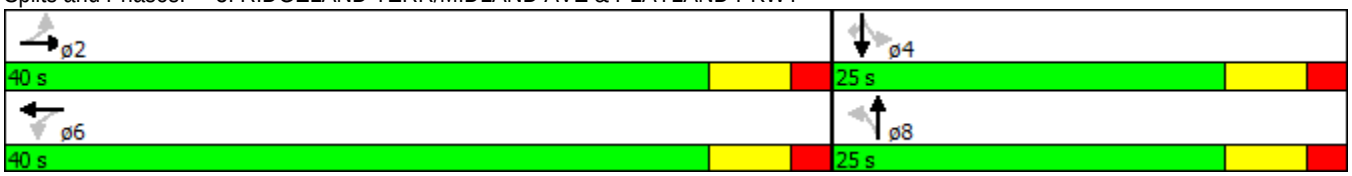
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	658	3	0	575	39	6	2	2	58	3	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991			0.975				0.850
Flt Protected		0.998						0.969			0.954	
Satd. Flow (prot)	0	3227	0	0	3339	0	0	1684	0	0	1839	1639
Flt Permitted		0.900						0.785			0.728	
Satd. Flow (perm)	0	2911	0	0	3339	0	0	1364	0	0	1404	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			16			2				59
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	715	3	0	625	42	7	2	2	63	3	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	755	0	0	667	0	0	11	0	0	66	59
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		25.3			25.3			9.6			10.3	10.3
Actuated g/C Ratio		0.59			0.59			0.22			0.24	0.24
v/c Ratio		0.44			0.34			0.04			0.19	0.13
Control Delay		7.9			6.8			13.0			15.7	6.2
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		7.9			6.8			13.0			15.7	6.2
LOS		A			A			B			B	A
Approach Delay		7.9			6.8			13.0			11.2	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		59			47			1			10	0
Queue Length 95th (ft)		94			74			12			43	23
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2380			2732			624			641	780
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		0.32			0.24			0.02			0.10	0.08

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 42.7	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 59.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



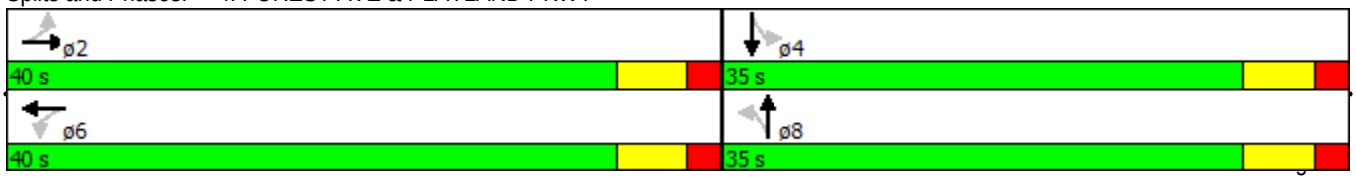
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	489	128	44	433	50	121	164	35	34	204	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.986			0.985			0.973	
Flt Protected		0.993			0.996			0.981			0.994	
Satd. Flow (prot)	0	3239	0	0	3195	0	0	1920	0	0	1862	0
Flt Permitted		0.774			0.836			0.737			0.927	
Satd. Flow (perm)	0	2525	0	0	2682	0	0	1442	0	0	1736	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											19	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	532	139	48	471	54	132	178	38	37	222	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	781	0	0	573	0	0	348	0	0	323	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		22.4			22.4			18.9			18.9	
Actuated g/C Ratio		0.41			0.41			0.35			0.35	
v/c Ratio		0.75			0.52			0.69			0.52	
Control Delay		19.3			14.3			24.3			17.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.3			14.3			24.3			17.4	
LOS		B			B			C			B	
Approach Delay		19.3			14.3			24.3			17.4	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		101			65			85			69	
Queue Length 95th (ft)		208			136			216			174	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		1693			1798			824			1001	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.46			0.32			0.42			0.32	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 54.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 18.4 — Intersection LOS: B
Intersection Capacity Utilization 89.0% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

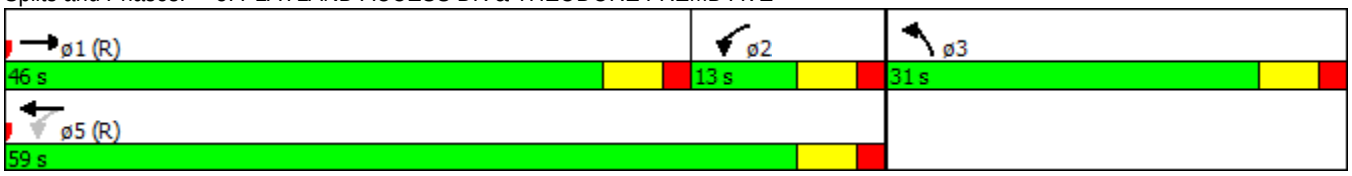


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	217	121	84	223	148	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.952				0.938	
Flt Protected			0.950		0.974	
Satd. Flow (prot)	1778	0	1743	1835	1693	0
Flt Permitted			0.461		0.974	
Satd. Flow (perm)	1778	0	846	1835	1693	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	40					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	236	132	91	242	161	138
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	0	91	242	299	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.45		0.16	0.22	0.64	
Control Delay	17.5		9.5	9.4	35.7	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	17.5		9.5	9.4	35.7	
LOS	B		A	A	D	
Approach Delay	17.5			9.4	35.7	
Approach LOS	B			A	D	
Queue Length 50th (ft)	124		21	60	149	
Queue Length 95th (ft)	200		41	98	237	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		567	1080	470	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.45		0.16	0.22	0.64	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 54.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	195	37	12	252	51	13	83	6	37	108	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.975			0.991				0.850
Flt Protected	0.950			0.950				0.994			0.987	
Satd. Flow (prot)	1752	1897	0	1635	1776	0	0	1938	0	0	2136	1839
Flt Permitted	0.551			0.603				0.952			0.896	
Satd. Flow (perm)	1016	1897	0	1038	1776	0	0	1856	0	0	1939	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		20										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	153	212	40	13	274	55	14	90	7	40	117	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	153	252	0	13	329	0	0	111	0	0	157	66
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.32	0.28		0.03	0.40			0.19			0.26	0.11
Control Delay	13.0	10.6		9.4	12.9			17.2			17.9	5.2
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	13.0	10.6		9.4	12.9			17.2			17.9	5.2
LOS	B	B		A	B			B			B	A
Approach Delay		11.5			12.8			17.2			14.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	35	51		3	79			31			45	0
Queue Length 95th (ft)	73	94		10	135			65			87	22
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	476	899		486	832			580			605	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.32	0.28		0.03	0.40			0.19			0.26	0.11

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 13.0 — Intersection LOS: B
Intersection Capacity Utilization 55.4% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	2	41	129	11	241	6	49	39	56	271	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.856			0.915			0.944			0.994	
Flt Protected	0.950				0.983			0.997			0.992	
Satd. Flow (prot)	1840	1714	0	0	1870	0	0	1744	0	0	1818	0
Flt Permitted	0.950				0.983			0.997			0.992	
Satd. Flow (perm)	1840	1714	0	0	1870	0	0	1744	0	0	1818	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	2	45	140	12	262	7	53	42	61	295	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	47	0	0	414	0	0	102	0	0	373	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 60.9%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	10.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	31	2	41	129	11	241	6	49	39	56	271	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	2	45	140	12	262	7	53	42	61	295	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	649	534	303	536	522	74	312	0	0	96	0	0
Stage 1	425	425	-	88	88	-	-	-	-	-	-	-
Stage 2	224	109	-	448	434	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	511	573	788	416	421	982	1248	-	-	1498	-	-
Stage 1	733	708	-	906	810	-	-	-	-	-	-	-
Stage 2	860	845	-	548	541	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	351	542	788	375	398	982	1248	-	-	1498	-	-
Mov Capacity-2 Maneuver	351	542	-	375	398	-	-	-	-	-	-	-
Stage 1	729	673	-	901	805	-	-	-	-	-	-	-
Stage 2	617	840	-	490	514	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	21.9	0.5	1.2
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	351	626	617	1498	-	-
HCM Lane V/C Ratio	0.005	-	-	0.064	0.093	0.671	0.041	-	-
HCM Control Delay (s)	7.9	0	-	16	11.3	21.9	7.505	0	-
HCM Lane LOS	A	A		C	B	C	A	A	
HCM 95th %tile Q(veh)	0.016	-	-	0.204	0.305	5.099	0.127	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	11	201	127	83	341	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.947		0.967	
Flt Protected		0.997			0.964	
Satd. Flow (prot)	0	2011	1853	0	1736	0
Flt Permitted		0.997			0.964	
Satd. Flow (perm)	0	2011	1853	0	1736	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	218	138	90	371	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	230	228	0	492	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	14.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	11	201	127	83	341	111
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	218	138	90	371	121

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	228	0	-	0	425	183
Stage 1	-	-	-	-	183	-
Stage 2	-	-	-	-	242	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1340	-	-	-	586	859
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	798	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1340	-	-	-	580	859
Mov Capacity-2 Maneuver	-	-	-	-	580	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	790	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	28
HCM LOS			D

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	630
HCM Lane V/C Ratio	0.009	-	-	-	0.78
HCM Control Delay (s)	7.711	0	-	-	28
HCM Lane LOS	A	A			D
HCM 95th %tile Q(veh)	0.027	-	-	-	7.437

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	436	107	154	136	33	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.937		0.915	
Flt Protected		0.961			0.982	
Satd. Flow (prot)	0	1881	1890	0	1649	0
Flt Permitted		0.961			0.982	
Satd. Flow (perm)	0	1881	1890	0	1649	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	474	116	167	148	36	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	590	315	0	97	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 61.5%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	436	107	154	136	33	56
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	116	167	148	36	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	315	0	-	0	1305	241
Stage 1	-	-	-	-	241	-
Stage 2	-	-	-	-	1064	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1245	-	-	-	142	782
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	278	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1245	-	-	-	84	782
Mov Capacity-2 Maneuver	-	-	-	-	84	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	165	-

Approach	EB	WB	SB
HCM Control Delay, s	7.8	0	41.4
HCM LOS			E

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1245	-	-	-	192
HCM Lane V/C Ratio	0.381	-	-	-	0.504
HCM Control Delay (s)	9.658	0	-	-	41.4
HCM Lane LOS	A	A			E
HCM 95th %tile Q(veh)	1.81	-	-	-	2.515

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	31	24	140	0	0	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	26	152	0	0	282
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	26	152	0	0	282
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	31	24	140	0	0	259
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	26	152	0	0	282

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	434	152	0	0	152	0
Stage 1	152	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	444	854	-	-	1429	-
Stage 1	798	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	444	854	-	-	1429	-
Mov Capacity-2 Maneuver	444	-	-	-	-	-
Stage 1	798	-	-	-	-	-
Stage 2	645	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	444	854	1429	-
HCM Lane V/C Ratio	-	-	0.076	0.031	-	-
HCM Control Delay (s)	-	-	13.8	9.3	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.245	0.094	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	279	57	8	352	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977					
Flt Protected			0.950			
Satd. Flow (prot)	1865	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1865	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	303	62	9	383	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	365	0	9	383	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	279	57	8	352	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	303	62	9	383	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	365	0	734	334
Stage 1	-	-	-	-	334	-
Stage 2	-	-	-	-	400	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1194	-	316	676
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	606	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1194	-	314	676
Mov Capacity-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	601	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1194	-
HCM Lane V/C Ratio	+	-	-	0.007	-
HCM Control Delay (s)	0	-	-	8.037	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.022	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	770	121	31	435	36	105	135	49	39	144	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.989			0.977			0.986	
Flt Protected		0.999			0.997			0.982			0.991	
Satd. Flow (prot)	0	3250	0	0	3241	0	0	2015	0	0	2048	0
Flt Permitted		0.939			0.830			0.799			0.893	
Satd. Flow (perm)	0	3055	0	0	2698	0	0	1640	0	0	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			10			11			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	18	837	132	34	473	39	114	147	53	42	157	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	987	0	0	546	0	0	314	0	0	222	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

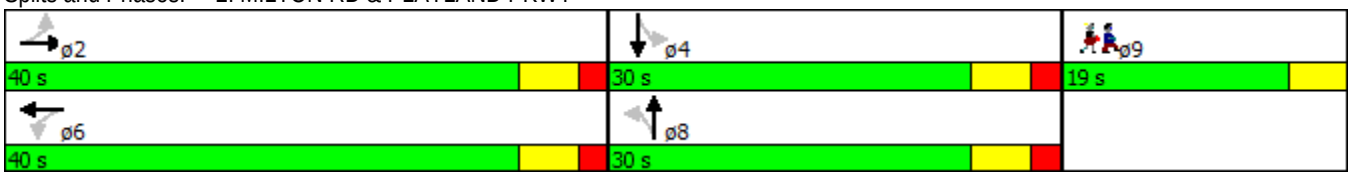
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		24.2			24.2			18.1			18.1	
Actuated g/C Ratio		0.42			0.42			0.31			0.31	
v/c Ratio		0.76			0.48			0.60			0.38	
Control Delay		20.4			15.2			24.6			20.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.4			15.2			24.6			20.0	
LOS		C			B			C			C	
Approach Delay		20.4			15.2			24.6			20.0	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)		126			59			78			51	
Queue Length 95th (ft)		#341			170			247			168	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		1962			1729			746			836	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.50			0.32			0.42			0.27	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 57.7
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 75.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

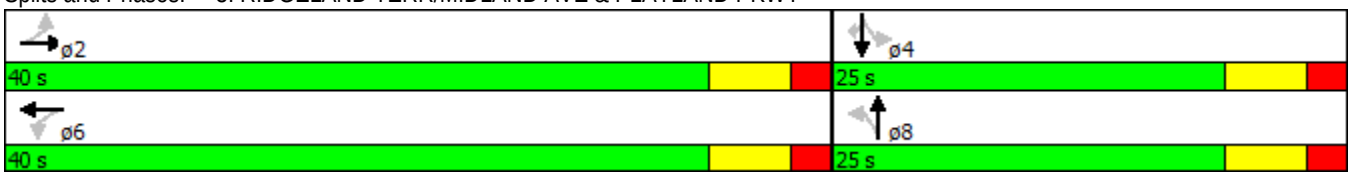
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	830	0	3	453	25	6	0	1	53	3	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.992			0.983				0.850
Flt Protected		0.998						0.958			0.955	
Satd. Flow (prot)	0	3231	0	0	3342	0	0	1678	0	0	1841	1639
Flt Permitted		0.928			0.950			0.710			0.731	
Satd. Flow (perm)	0	3004	0	0	3175	0	0	1244	0	0	1409	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			50				50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	902	0	3	492	27	7	0	1	58	3	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	932	0	0	522	0	0	8	0	0	61	47
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		27.8			27.8			8.8			10.2	10.2
Actuated g/C Ratio		0.69			0.69			0.22			0.25	0.25
v/c Ratio		0.45			0.24			0.03			0.17	0.10
Control Delay		7.0			5.4			0.1			15.5	6.4
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		7.0			5.4			0.1			15.5	6.4
LOS		A			A			A			B	A
Approach Delay		7.0			5.4			0.1			11.5	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)		79			35			0			10	0
Queue Length 95th (ft)		121			57			0			41	20
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2570			2717			620			673	809
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		0.36			0.19			0.01			0.09	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 40.3	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 6.7	Intersection LOS: A
Intersection Capacity Utilization 60.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



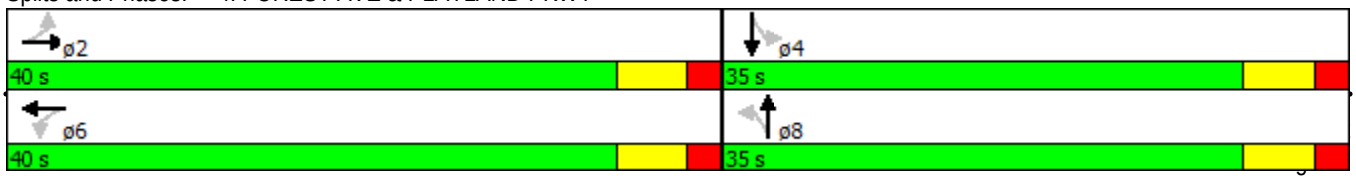
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	732	76	20	370	26	68	120	23	32	114	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.991			0.985			0.969	
Flt Protected		0.996			0.998			0.984			0.992	
Satd. Flow (prot)	0	3296	0	0	3218	0	0	1926	0	0	1850	0
Flt Permitted		0.865			0.886			0.842			0.905	
Satd. Flow (perm)	0	2862	0	0	2857	0	0	1648	0	0	1688	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											23	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	82	796	83	22	402	28	74	130	25	35	124	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	961	0	0	452	0	0	229	0	0	206	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		21.1			21.1			13.8			13.8	
Actuated g/C Ratio		0.44			0.44			0.29			0.29	
v/c Ratio		0.76			0.36			0.48			0.41	
Control Delay		15.8			9.9			18.9			15.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.8			9.9			18.9			15.8	
LOS		B			A			B			B	
Approach Delay		15.8			9.9			18.9			15.8	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		96			35			47			36	
Queue Length 95th (ft)		217			86			132			109	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		2152			2149			1057			1091	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.45			0.21			0.22			0.19	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 47.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 14.8 — Intersection LOS: B
Intersection Capacity Utilization 72.7% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

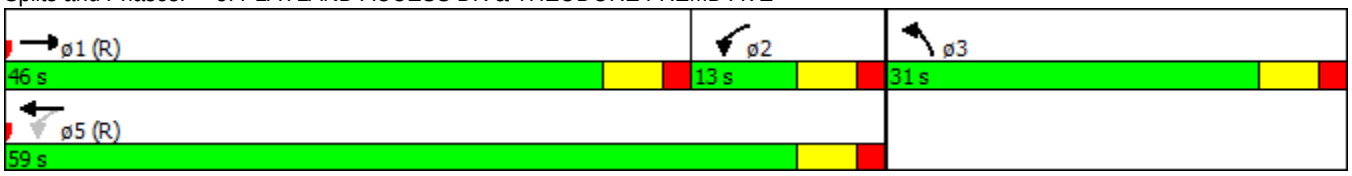


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	162	97	60	174	97	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.950				0.939	
Flt Protected			0.950		0.973	
Satd. Flow (prot)	1775	0	1743	1835	1693	0
Flt Permitted			0.546		0.973	
Satd. Flow (perm)	1775	0	1002	1835	1693	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	43					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	176	105	65	189	105	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	281	0	65	189	192	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.35		0.10	0.17	0.41	
Control Delay	15.2		8.7	9.0	29.7	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	15.2		8.7	9.0	29.7	
LOS	B		A	A	C	
Approach Delay	15.2			8.9	29.7	
Approach LOS	B			A	C	
Queue Length 50th (ft)	84		15	45	89	
Queue Length 95th (ft)	144		31	77	151	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		647	1080	470	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.35		0.10	0.17	0.41	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 16.8	Intersection LOS: B
Intersection Capacity Utilization 43.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	184	28	7	175	27	14	40	6	34	49	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.980			0.985				0.850
Flt Protected	0.950			0.950				0.989			0.980	
Satd. Flow (prot)	1752	1905	0	1635	1786	0	0	1916	0	0	2121	1839
Flt Permitted	0.621			0.615				0.930			0.864	
Satd. Flow (perm)	1145	1905	0	1059	1786	0	0	1802	0	0	1870	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		16										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	66	200	30	8	190	29	15	43	7	37	53	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	230	0	8	219	0	0	65	0	0	90	67
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.12	0.26		0.02	0.26			0.12			0.15	0.11
Control Delay	10.4	10.4		9.3	11.4			16.4			16.8	5.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.4	10.4		9.3	11.4			16.4			16.8	5.3
LOS	B	B		A	B			B			B	A
Approach Delay		10.4			11.3			16.4			11.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	14	47		2	49			18			25	0
Queue Length 95th (ft)	33	86		8	88			43			55	23
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	536	901		496	837			563			584	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.12	0.26		0.02	0.26			0.12			0.15	0.11

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.26
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 42.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	2	17	120	5	193	3	33	17	37	157	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.918			0.957			0.993	
Flt Protected	0.950				0.982			0.997			0.991	
Satd. Flow (prot)	1840	1732	0	0	1875	0	0	1768	0	0	1815	0
Flt Permitted	0.950				0.982			0.997			0.991	
Satd. Flow (perm)	1840	1732	0	0	1875	0	0	1768	0	0	1815	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	2	18	130	5	210	3	36	18	40	171	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	20	0	0	345	0	0	57	0	0	223	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	2	17	120	5	193	3	33	17	37	157	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	2	18	130	5	210	3	36	18	40	171	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	416	318	177	319	315	45	183	0	0	54	0	0
Stage 1	257	257	-	52	52	-	-	-	-	-	-	-
Stage 2	159	61	-	267	263	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	658	689	901	601	570	1021	1392	-	-	1551	-	-
Stage 1	838	779	-	952	844	-	-	-	-	-	-	-
Stage 2	905	867	-	706	661	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	507	668	901	573	552	1021	1392	-	-	1551	-	-
Mov Capacity-2 Maneuver	507	668	-	573	552	-	-	-	-	-	-	-
Stage 1	836	756	-	950	842	-	-	-	-	-	-	-
Stage 2	713	865	-	670	642	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	13.2	0.4	1.3
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	507	773	780	1551	-	-
HCM Lane V/C Ratio	0.002	-	-	0.017	0.032	0.443	0.026	-	-
HCM Control Delay (s)	7.592	0	-	12.2	9.8	13.2	7.383	0	-
HCM Lane LOS	A	A		B	A	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.052	0.1	2.291	0.08	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	8	183	102	41	194	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.961		0.954	
Flt Protected		0.998			0.968	
Satd. Flow (prot)	0	2013	1881	0	1720	0
Flt Permitted		0.998			0.968	
Satd. Flow (perm)	0	2013	1881	0	1720	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	199	111	45	211	110
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	208	156	0	321	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	6.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	8	183	102	41	194	101
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	199	111	45	211	110

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	155	0	-	0	349	133
Stage 1	-	-	-	-	133	-
Stage 2	-	-	-	-	216	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1425	-	-	-	648	916
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	820	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1425	-	-	-	643	916
Mov Capacity-2 Maneuver	-	-	-	-	643	-
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	14
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1425	-	-	-	716
HCM Lane V/C Ratio	0.006	-	-	-	0.448
HCM Control Delay (s)	7.542	0	-	-	14
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.018	-	-	-	2.324

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	297	81	105	77	27	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.943		0.920	
Flt Protected		0.962			0.980	
Satd. Flow (prot)	0	1883	1902	0	1654	0
Flt Permitted		0.962			0.980	
Satd. Flow (perm)	0	1883	1902	0	1654	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	323	88	114	84	29	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	411	198	0	71	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	297	81	105	77	27	39
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	323	88	114	84	29	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	198	0	-	0	890	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	734	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1375	-	-	-	270	878
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	420	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1375	-	-	-	203	878
Mov Capacity-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	316	-

Approach	EB	WB	SB
HCM Control Delay, s	6.6	0	17
HCM LOS			C

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1375	-	-	-	372
HCM Lane V/C Ratio	0.235	-	-	-	0.193
HCM Control Delay (s)	8.42	0	-	-	17
HCM Lane LOS	A	A			C
HCM 95th %tile Q(veh)	0.914	-	-	-	0.704

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	14	14	108	0	0	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	15	117	0	0	184
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	15	117	0	0	184
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	14	108	0	0	169
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	15	117	0	0	184

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	301	117	0	0	117	0
Stage 1	117	-	-	-	-	-
Stage 2	184	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	575	902	-	-	1471	-
Stage 1	845	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	575	902	-	-	1471	-
Mov Capacity-2 Maneuver	575	-	-	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	757	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	575	902	1471	-
HCM Lane V/C Ratio	-	-	0.026	0.017	-	-
HCM Control Delay (s)	-	-	11.4	9.1	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.081	0.051	0	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	245	60	11	212	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.973					
Flt Protected			0.950			
Satd. Flow (prot)	1858	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1858	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	266	65	12	230	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	331	0	12	230	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	245	60	11	212	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	266	65	12	230	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	332	0	553	299
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	254	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1227	-	424	710
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	735	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1227	-	420	710
Mov Capacity-2 Maneuver	-	-	-	-	420	-
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	728	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	0
HCM LOS			A

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1227	-
HCM Lane V/C Ratio	+	-	-	0.01	-
HCM Control Delay (s)	0	-	-	7.963	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.03	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	733	135	31	703	41	87	126	44	61	139	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	16	16	16	16	16	16
Grade (%)		-1%			1%			1%			-1%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.992			0.977			0.981	
Flt Protected		0.998			0.998			0.983			0.987	
Satd. Flow (prot)	0	3237	0	0	3254	0	0	2017	0	0	2030	0
Flt Permitted		0.906			0.879			0.785			0.830	
Satd. Flow (perm)	0	2939	0	0	2866	0	0	1611	0	0	1707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			7			11			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1980			931			506			600	
Travel Time (s)		45.0			21.2			11.5			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	0	3	3	0	0	0	0	0	3	3	3
Adj. Flow (vph)	30	797	147	34	764	45	95	137	48	66	151	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	974	0	0	843	0	0	280	0	0	253	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.10	1.10	1.10	0.85	0.85	0.85	0.84	0.86	0.84
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	

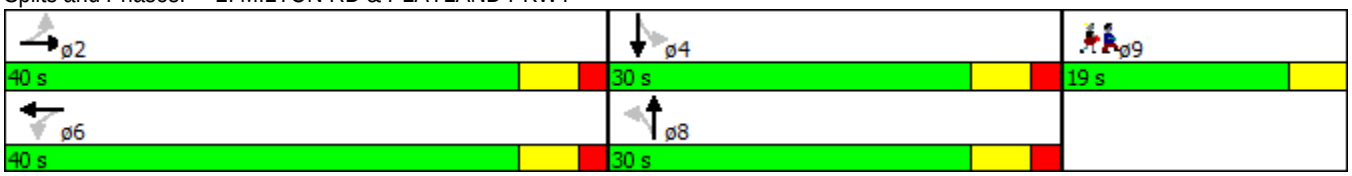
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.9%	44.9%		44.9%	44.9%		33.7%	33.7%		33.7%	33.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		24.9			24.9			16.6			16.6	
Actuated g/C Ratio		0.44			0.44			0.29			0.29	
v/c Ratio		0.75			0.67			0.59			0.50	
Control Delay		19.4			17.5			25.1			22.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.4			17.5			25.1			22.9	
LOS		B			B			C			C	
Approach Delay		19.4			17.5			25.1			22.9	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		114			96			68			60	
Queue Length 95th (ft)		#369			286			219			193	
Internal Link Dist (ft)		1900			851			426			520	
Turn Bay Length (ft)												
Base Capacity (vph)		1921			1868			746			789	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.45			0.38			0.32	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 57
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 19.8 Intersection LOS: B
Intersection Capacity Utilization 76.1% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: MILTON RD & PLAYLAND PKWY



Lane Group	ø9
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

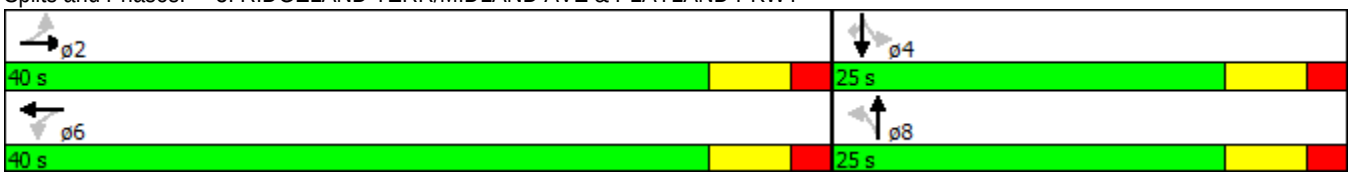
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	814	5	0	716	22	3	2	0	50	4	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	12	12	12
Grade (%)		4%			-4%			-5%			-7%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.996							0.850
Flt Protected		0.999						0.971			0.956	
Satd. Flow (prot)	0	3231	0	0	3356	0	0	1730	0	0	1843	1639
Flt Permitted		0.928						0.810			0.737	
Satd. Flow (perm)	0	3001	0	0	3356	0	0	1443	0	0	1421	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			7							61
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		931			808			221			669	
Travel Time (s)		21.2			18.4			5.0			15.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	885	5	0	778	24	3	2	0	54	4	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	911	0	0	802	0	0	5	0	0	58	61
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.12	1.12	1.12	1.07	1.07	1.07	1.06	1.06	1.06	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	0
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	41		20	41		20	83		20	83	0
Trailing Detector (ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Position(ft)	0	35		0	35		0	-5		0	-5	0
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		4
Detector Phase	2	2		6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		7.0	7.0		10.0	10.0	10.0
Minimum Split (s)	25.0	25.0		34.0	34.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	38.5%
Maximum Green (s)	34.0	34.0		34.0	34.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	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			6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None	None
Walk Time (s)				10.0	10.0							
Flash Dont Walk (s)				18.0	18.0							
Pedestrian Calls (#/hr)				3	3							
Act Effct Green (s)		26.1			26.1			9.5			10.2	10.2
Actuated g/C Ratio		0.60			0.60			0.22			0.24	0.24
v/c Ratio		0.50			0.40			0.02			0.17	0.14
Control Delay		8.3			7.1			14.2			15.9	6.3
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		8.3			7.1			14.2			15.9	6.3
LOS		A			A			B			B	A
Approach Delay		8.3			7.1			14.2			11.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		76			61			1			9	0
Queue Length 95th (ft)		117			92			8			39	23
Internal Link Dist (ft)		851			728			141			589	
Turn Bay Length (ft)												300
Base Capacity (vph)		2405			2691			646			636	767
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		0.38			0.30			0.01			0.09	0.08

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 43.3	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 54.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: RIDGELAND TERR/MIDLAND AVE & PLAYLAND PKWY



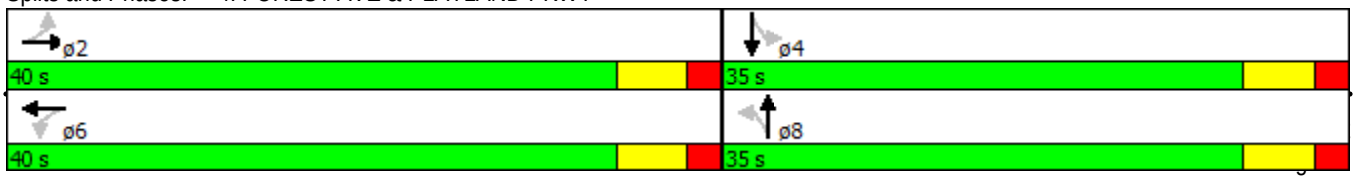
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	701	80	21	629	42	59	141	27	32	155	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	13	13	13
Grade (%)		-3%			3%			0%			0%	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.991			0.984			0.972	
Flt Protected		0.995			0.998			0.987			0.993	
Satd. Flow (prot)	0	3289	0	0	3218	0	0	1930	0	0	1858	0
Flt Permitted		0.797			0.909			0.853			0.926	
Satd. Flow (perm)	0	2635	0	0	2931	0	0	1668	0	0	1732	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											21	
Link Speed (mph)		30			15			30			30	
Link Distance (ft)		808			400			639			715	
Travel Time (s)		18.4			18.2			14.5			16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	90	762	87	23	684	46	64	153	29	35	168	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	939	0	0	753	0	0	246	0	0	257	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.11	1.11	1.11	0.92	0.92	0.92	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	76		20	56		20	83		20	83	
Trailing Detector (ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Position(ft)	0	70		0	50		0	-5		0	-5	
Detector 1 Size(ft)	20	6		20	6		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								43			43	
Detector 2 Size(ft)								40			40	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0		26.0	26.0		29.0	29.0		25.0	25.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				13.0	13.0		16.0	16.0				
Pedestrian Calls (#/hr)				3	3		3	3				
Act Effct Green (s)		23.6			23.6			14.5			14.5	
Actuated g/C Ratio		0.47			0.47			0.29			0.29	
v/c Ratio		0.77			0.55			0.52			0.50	
Control Delay		16.5			11.8			20.8			18.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.5			11.8			20.8			18.8	
LOS		B			B			C			B	
Approach Delay		16.5			11.8			20.8			18.8	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		104			72			59			56	
Queue Length 95th (ft)		224			154			141			137	
Internal Link Dist (ft)		728			320			559			635	
Turn Bay Length (ft)												
Base Capacity (vph)		1855			2063			1001			1048	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.37			0.25			0.25	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 50.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: FOREST AVE & PLAYLAND PKWY

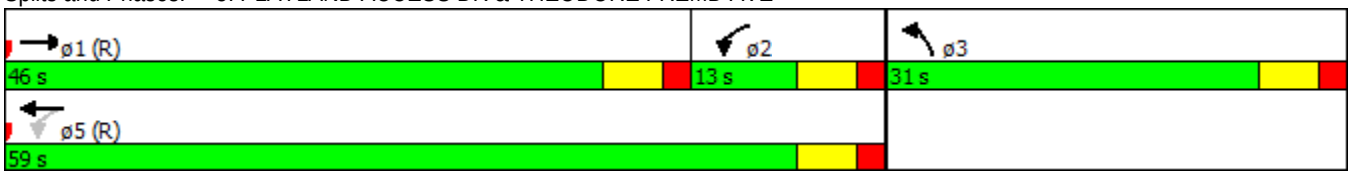


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	141	84	51	144	90	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	1%	
Storage Length (ft)		0	125		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.950				0.950	
Flt Protected			0.950		0.970	
Satd. Flow (prot)	1775	0	1743	1835	1708	0
Flt Permitted			0.583		0.970	
Satd. Flow (perm)	1775	0	1070	1835	1708	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	43					
Link Speed (mph)	30			30	30	
Link Distance (ft)	488			1062	959	
Travel Time (s)	11.1			24.1	21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	3	3	0	0	0	0
Adj. Flow (vph)	153	91	55	157	98	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	244	0	55	157	156	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	0.98	1.02	1.02	1.01	1.01
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	1		2	5	3	
Permitted Phases			5			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	46.0		13.0	59.0	31.0	
Total Split (%)	51.1%		14.4%	65.6%	34.4%	
Maximum Green (s)	40.0		7.0	53.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	40.0		53.0	53.0	25.0	
Actuated g/C Ratio	0.44		0.59	0.59	0.28	
v/c Ratio	0.30		0.08	0.15	0.33	
Control Delay	14.2		8.5	8.8	28.2	
Queue Delay	0.0		0.0	0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	14.2		8.5	8.8	28.2	
LOS	B		A	A	C	
Approach Delay	14.2			8.7	28.2	
Approach LOS	B			A	C	
Queue Length 50th (ft)	69		12	37	70	
Queue Length 95th (ft)	122		28	65	124	
Internal Link Dist (ft)	408			982	879	
Turn Bay Length (ft)			125			
Base Capacity (vph)	812		682	1080	474	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.30		0.08	0.15	0.33	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 1:EBT and 5:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.33	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 39.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: PLAYLAND ACCESS DR & THEODORE FREMD AVE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	139	15	3	160	19	17	42	7	37	67	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	14	10	12	12	14	14	14	16	16	16
Grade (%)		2%			2%			2%			-5%	
Storage Length (ft)	315		0	75		0	0		0	0		20
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.984			0.985				0.850
Flt Protected	0.950			0.950				0.988			0.983	
Satd. Flow (prot)	1752	1916	0	1635	1793	0	0	1914	0	0	2127	1839
Flt Permitted	0.635			0.651				0.916			0.875	
Satd. Flow (perm)	1171	1916	0	1120	1793	0	0	1775	0	0	1893	1839
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		11										68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1062			722			477			583	
Travel Time (s)		24.1			16.4			10.8			13.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Adj. Flow (vph)	54	151	16	3	174	21	18	46	8	40	73	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	167	0	3	195	0	0	72	0	0	113	41
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.95	0.93	1.11	1.03	1.01	0.93	0.93	0.93	0.82	0.82	0.82
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Minimum Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		23.0	23.0	23.0
Total Split (s)	37.0	37.0		37.0	37.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	57.8%	57.8%		57.8%	57.8%		42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		23.0	23.0		13.0	13.0				
Pedestrian Calls (#/hr)	2	2		2	2		2	2				
Act Effct Green (s)	30.0	30.0		30.0	30.0			20.0			20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.31			0.31	0.31
v/c Ratio	0.10	0.18		0.01	0.23			0.13			0.19	0.07
Control Delay	10.1	9.9		9.3	11.1			16.6			17.2	2.6
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.1	9.9		9.3	11.1			16.6			17.2	2.6
LOS	B	A		A	B			B			B	A
Approach Delay		10.0			11.0			16.6			13.3	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	11	33		1	43			20			32	0
Queue Length 95th (ft)	29	64		4	79			46			66	11
Internal Link Dist (ft)		982			642			397			503	
Turn Bay Length (ft)	315			75								20
Base Capacity (vph)	548	903		525	840			554			591	621
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.10	0.18		0.01	0.23			0.13			0.19	0.07

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.23
Intersection Signal Delay: 11.8 Intersection LOS: B
Intersection Capacity Utilization 40.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NORTH ST & THEODORE FREMD AVE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	0	10	129	4	159	3	41	27	26	156	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	13	16	16	16	12	12	12	12	12	12
Grade (%)		-8%			3%			1%			2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.926			0.949			0.998	
Flt Protected	0.950				0.978			0.998			0.993	
Satd. Flow (prot)	1840	1702	0	0	1883	0	0	1755	0	0	1828	0
Flt Permitted	0.950				0.978			0.998			0.993	
Satd. Flow (perm)	1840	1702	0	0	1883	0	0	1755	0	0	1828	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			145			589			959	
Travel Time (s)		4.5			3.3			13.4			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	0	11	140	4	173	3	45	29	28	170	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	11	0	0	317	0	0	77	0	0	201	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.95	0.91	0.91	0.86	0.86	0.86	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 46.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	0	10	129	4	159	3	41	27	26	156	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	1	-	-	2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	11	140	4	173	3	45	29	28	170	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	382	308	171	299	295	59	173	0	0	74	0	0
Stage 1	228	228	-	66	66	-	-	-	-	-	-	-
Stage 2	154	80	-	233	229	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	683	695	907	622	587	1002	1404	-	-	1526	-	-
Stage 1	857	792	-	934	831	-	-	-	-	-	-	-
Stage 2	908	858	-	741	688	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	553	680	907	604	574	1002	1404	-	-	1526	-	-
Mov Capacity-2 Maneuver	553	680	-	604	574	-	-	-	-	-	-	-
Stage 1	855	776	-	932	829	-	-	-	-	-	-	-
Stage 2	746	856	-	717	674	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	12.9	0.3	1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1404	-	-	553	809	770	1526	-	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.017	0.412	0.019	-	-
HCM Control Delay (s)	7.57	0	-	11.6	9.5	12.9	7.404	0	-
HCM Lane LOS	A	A		B	A	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.028	0.051	2.031	0.057	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	8	155	99	62	194	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		-3%	3%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.948		0.951	
Flt Protected		0.997			0.969	
Satd. Flow (prot)	0	2011	1855	0	1717	0
Flt Permitted		0.997			0.969	
Satd. Flow (perm)	0	2011	1855	0	1717	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		444	292		589	
Travel Time (s)		10.1	6.6		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	168	108	67	211	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	177	175	0	332	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.90	0.90	0.94	0.94	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 38.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	8	155	99	62	194	111
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, %	-	-3	3	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	168	108	67	211	121

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	175	0	-	0	327	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	186	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1401	-	-	-	667	907
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	846	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1401	-	-	-	662	907
Mov Capacity-2 Maneuver	-	-	-	-	662	-
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13.9
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1401	-	-	-	734
HCM Lane V/C Ratio	0.006	-	-	-	0.452
HCM Control Delay (s)	7.586	0	-	-	13.9
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.019	-	-	-	2.36

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	268	81	109	73	18	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	12	12
Grade (%)		3%	-3%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.946		0.900	
Flt Protected		0.963			0.987	
Satd. Flow (prot)	0	1885	1908	0	1630	0
Flt Permitted		0.963			0.987	
Satd. Flow (perm)	0	1885	1908	0	1630	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		292	199		569	
Travel Time (s)		6.6	4.5		12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	291	88	118	79	20	57
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	379	197	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.94	0.94	0.90	0.90	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	268	81	109	73	18	52
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, %	-	3	-3	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	291	88	118	79	20	57

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	198	0	-	0	829	158
Stage 1	-	-	-	-	158	-
Stage 2	-	-	-	-	671	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1375	-	-	-	297	876
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	454	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1375	-	-	-	231	876
Mov Capacity-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	353	-

Approach	EB	WB	SB
HCM Control Delay, s	6.4	0	13.3
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1375	-	-	-	510
HCM Lane V/C Ratio	0.212	-	-	-	0.149
HCM Control Delay (s)	8.321	0	-	-	13.3
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.802	-	-	-	0.521

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	27	24	98	0	0	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	14	14	14
Grade (%)	11%		-2%			2%
Storage Length (ft)	0	150		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1895	1696	2007	0	0	1967
Flt Permitted	0.950					
Satd. Flow (perm)	1895	1696	2007	0	0	1967
Link Speed (mph)	30		30			30
Link Distance (ft)	325		199			400
Travel Time (s)	7.4		4.5			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	26	107	0	0	170
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	26	107	0	0	170
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.91	0.91	0.91	0.91	0.93	0.93
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	27	24	98	0	0	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	11	-	-2	-	-	2
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	26	107	0	0	170

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	277	107	0	0	107	0
Stage 1	107	-	-	-	-	-
Stage 2	170	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	602	917	-	-	1484	-
Stage 1	859	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	602	917	-	-	1484	-
Mov Capacity-2 Maneuver	602	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	775	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	602	917	1484	-
HCM Lane V/C Ratio	-	-	0.049	0.028	-	-
HCM Control Delay (s)	-	-	11.3	9	0	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.153	0.088	0	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	267	53	5	241	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-5%			5%	5%	
Storage Length (ft)		0	80		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977					
Flt Protected			0.950			
Satd. Flow (prot)	1865	0	1725	1816	1816	0
Flt Permitted			0.950			
Satd. Flow (perm)	1865	0	1725	1816	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	626			359	673	
Travel Time (s)	14.2			8.2	15.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	290	58	5	262	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	348	0	5	262	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.97	0.97	1.03	1.03	1.03	1.03
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	267	53	5	241	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	-	-	80	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	5	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	290	58	5	262	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	348	0	592	319
Stage 1	-	-	-	-	319	-
Stage 2	-	-	-	-	273	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1211	-	398	690
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	716	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1211	-	396	690
Mov Capacity-2 Maneuver	-	-	-	-	396	-
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	713	-

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

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	0	-	-	1211	-
HCM Lane V/C Ratio	+	-	-	0.004	-
HCM Control Delay (s)	0	-	-	7.986	-
HCM Lane LOS	A			A	
HCM 95th %tile Q(veh)	+	-	-	0.014	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined