



***APPENDIX C:  
INTERSECTION CAPACITY OUTPUT  
SHEET***

***CITY OF NOBLESVILLE***



***MARCH 2024***

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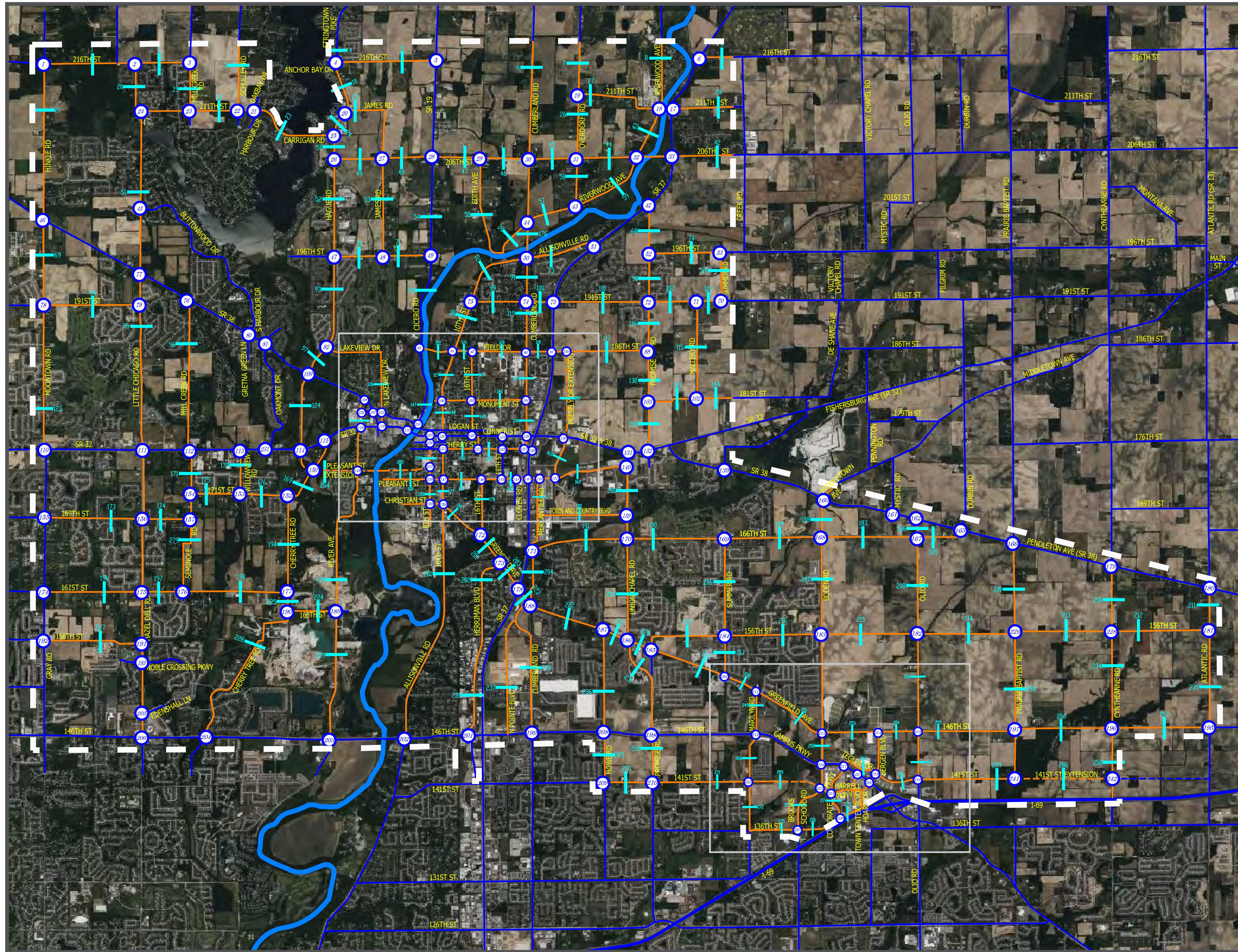
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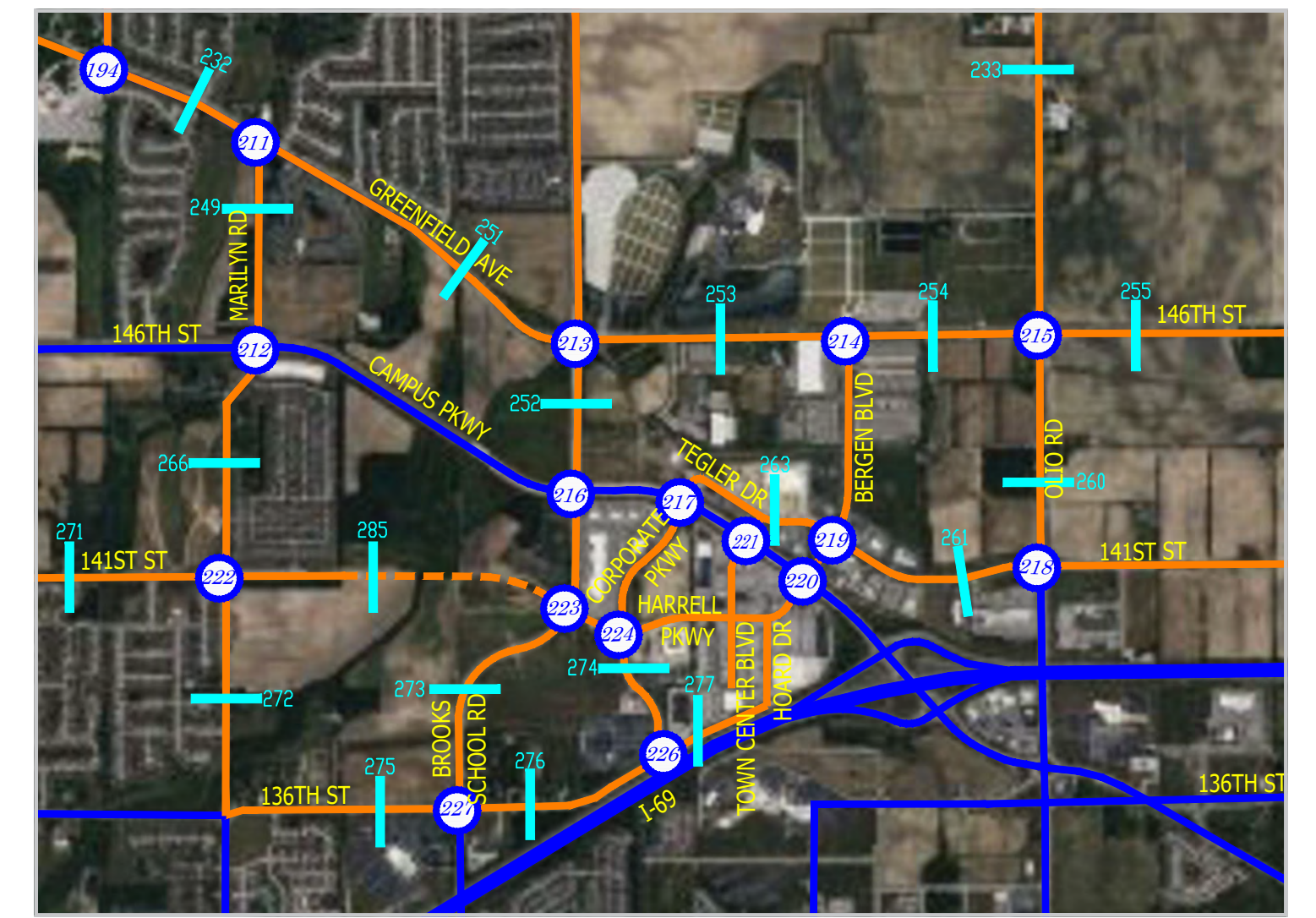
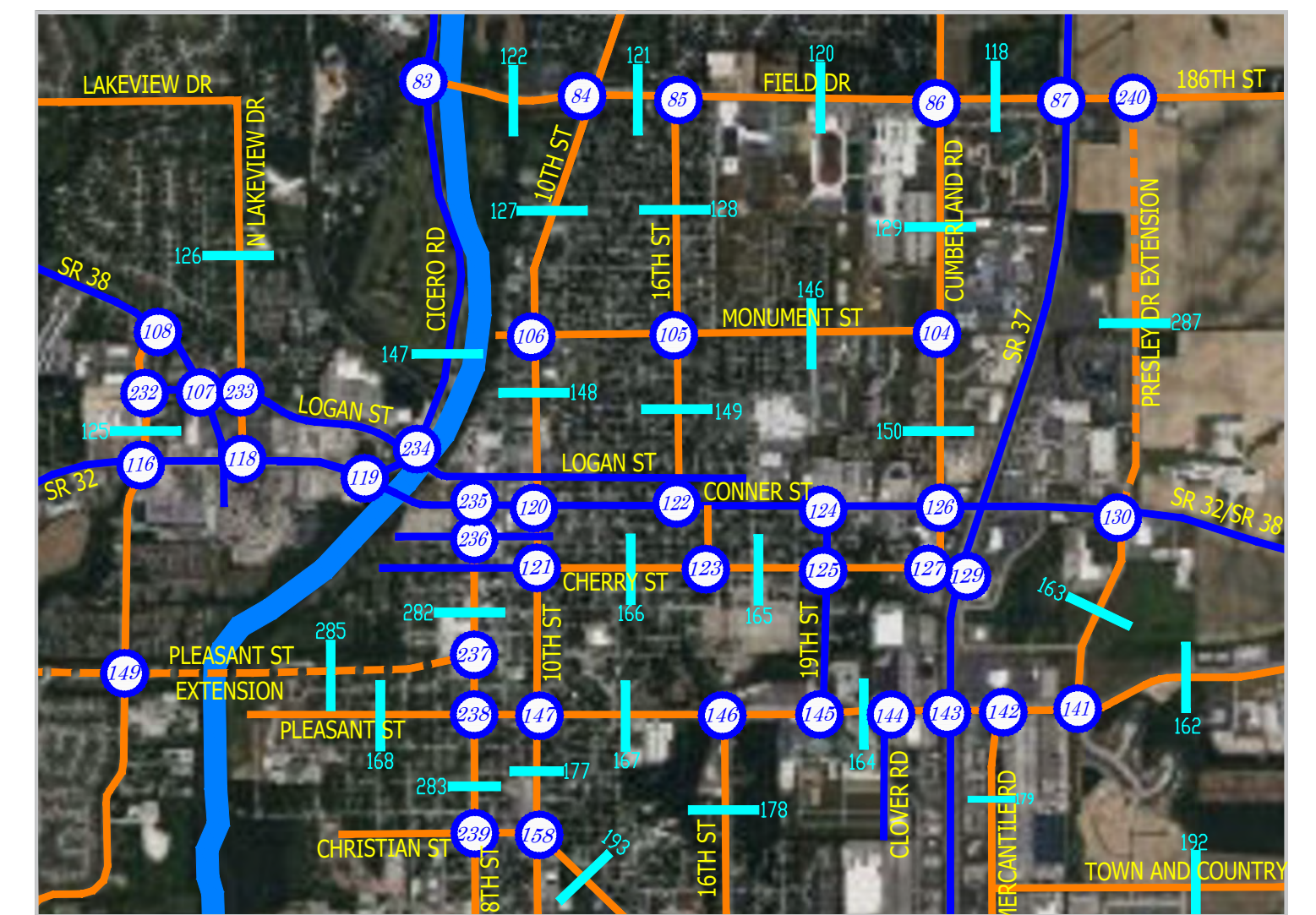
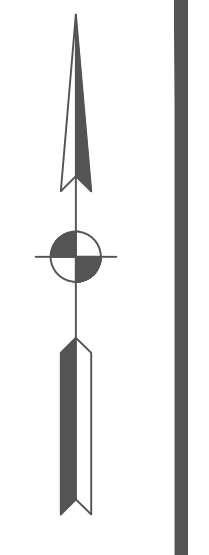
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**LEGEND**

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- ROADWAY SEGMENT INCLUDED IN ANALYSIS
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- PROPOSED STUDY ROADWAY SEGEMENT
- ZONE IMPROVEMENT PLAN BOUNDARY



*CITY OF NOBLESVILLE  
 ZONE IMPROVEMENT PLAN  
 STUDY AREA ROADWAY NETWORK*

*FIGURE 1*

Z:\2023\230775-City of Noblesville, Road Impact Fee Update, Noblesville, DWG\230775-Impact Fee Map.dwg

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	27	0	36	125	0	0	0	13	4	2	6
Future Vol, veh/h	0	27	0	36	125	0	0	0	13	4	2	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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	29	0	39	136	0	0	0	14	4	2	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	8.1	6.9	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	22%	33%
Vol Thru, %	0%	100%	78%	17%
Vol Right, %	100%	0%	0%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	27	161	12
LT Vol	0	0	36	4
Through Vol	0	27	125	2
RT Vol	13	0	0	6
Lane Flow Rate	14	29	175	13
Geometry Grp	1	1	1	1
Degree of Util (X)	0.015	0.034	0.198	0.015
Departure Headway (Hd)	3.714	4.132	4.067	4.083
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	944	862	884	861
Service Time	1.813	2.177	2.083	2.181
HCM Lane V/C Ratio	0.015	0.034	0.198	0.015
HCM Control Delay	6.9	7.3	8.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.7	0



Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	266	0	23	42	5	0	6	28	7	3	1
Future Vol, veh/h	1	266	0	23	42	5	0	6	28	7	3	1
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	1	289	0	25	46	5	0	7	30	8	3	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	7.8	7.5	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	33%	64%
Vol Thru, %	18%	100%	60%	27%
Vol Right, %	82%	0%	7%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	267	70	11
LT Vol	0	1	23	7
Through Vol	6	266	42	3
RT Vol	28	0	5	1
Lane Flow Rate	37	290	76	12
Geometry Grp	1	1	1	1
Degree of Util (X)	0.044	0.33	0.09	0.016
Departure Headway (Hd)	4.273	4.096	4.28	4.871
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	843	874	824	739
Service Time	2.273	2.146	2.375	2.873
HCM Lane V/C Ratio	0.044	0.332	0.092	0.016
HCM Control Delay	7.5	9.2	7.8	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.4	0.3	0

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	27	8	38	129	0	19	0	15	6	4	6
Future Vol, veh/h	0	27	8	38	129	0	19	0	15	6	4	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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	29	9	41	140	0	21	0	16	7	4	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	8.2	7.5	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	56%	0%	23%	38%
Vol Thru, %	0%	77%	77%	25%
Vol Right, %	44%	23%	0%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	35	167	16
LT Vol	19	0	38	6
Through Vol	0	27	129	4
RT Vol	15	8	0	6
Lane Flow Rate	37	38	182	17
Geometry Grp	1	1	1	1
Degree of Util (X)	0.044	0.043	0.208	0.021
Departure Headway (Hd)	4.302	4.045	4.119	4.327
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	837	874	868	832
Service Time	2.303	2.12	2.16	2.328
HCM Lane V/C Ratio	0.044	0.043	0.21	0.02
HCM Control Delay	7.5	7.3	8.2	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.8	0.1

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	271	47	24	47	8	6	6	31	7	5	1
Future Vol, veh/h	1	271	47	24	47	8	6	6	31	7	5	1
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	1	295	51	26	51	9	7	7	34	8	5	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8	7.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	0%	30%	54%
Vol Thru, %	14%	85%	59%	38%
Vol Right, %	72%	15%	10%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	319	79	13
LT Vol	6	1	24	7
Through Vol	6	271	47	5
RT Vol	31	47	8	1
Lane Flow Rate	47	347	86	14
Geometry Grp	1	1	1	1
Degree of Util (X)	0.058	0.389	0.106	0.02
Departure Headway (Hd)	4.501	4.036	4.434	5.011
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	799	881	812	718
Service Time	2.507	2.107	2.441	3.018
HCM Lane V/C Ratio	0.059	0.394	0.106	0.019
HCM Control Delay	7.8	9.7	8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	1.9	0.4	0.1

Intersection						
Int Delay, s/veh	3.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	48	0	71	76	9
Future Vol, veh/h	14	48	0	71	76	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	15	52	0	77	83	10

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	67	0	118
Stage 1	-	-	-	-	41
Stage 2	-	-	-	-	77
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1528	-	875
Stage 1	-	-	-	-	979
Stage 2	-	-	-	-	943
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1528	-	875
Mov Cap-2 Maneuver	-	-	-	-	875
Stage 1	-	-	-	-	979
Stage 2	-	-	-	-	943

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1528	-
HCM Lane V/C Ratio	0.104	-	-	-	-
HCM Control Delay (s)	9.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	196	7	20	37	5
Future Vol, veh/h	107	196	7	20	37	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	116	213	8	22	40	5

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	329	0	261	223
Stage 1	-	-	-	-	223	-
Stage 2	-	-	-	-	38	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1225	-	726	814
Stage 1	-	-	-	-	812	-
Stage 2	-	-	-	-	982	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1225	-	721	814
Mov Cap-2 Maneuver	-	-	-	-	721	-
Stage 1	-	-	-	-	812	-
Stage 2	-	-	-	-	975	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	731	-	-	1225	-
HCM Lane V/C Ratio	0.062	-	-	0.006	-
HCM Control Delay (s)	10.3	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	63	0	78	78	9
Future Vol, veh/h	16	63	0	78	78	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	17	68	0	85	85	10

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	85	0	136
Stage 1	-	-	-	-	51
Stage 2	-	-	-	-	85
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1505	-	855
Stage 1	-	-	-	-	969
Stage 2	-	-	-	-	936
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1505	-	855
Mov Cap-2 Maneuver	-	-	-	-	855
Stage 1	-	-	-	-	969
Stage 2	-	-	-	-	936

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	869	-	-	1505	-
HCM Lane V/C Ratio	0.109	-	-	-	-
HCM Control Delay (s)	9.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	111	212	7	30	49	5
Future Vol, veh/h	111	212	7	30	49	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	121	230	8	33	53	5

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	351	0	285	236
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	49	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1202	-	703	801
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	971	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1202	-	698	801
Mov Cap-2 Maneuver	-	-	-	-	698	-
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	964	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	706	-	-	1202	-
HCM Lane V/C Ratio	0.083	-	-	0.006	-
HCM Control Delay (s)	10.6	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	16	4	20	46	54	28
Future Vol, veh/h	16	4	20	46	54	28
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	17	4	22	50	59	30

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	168	74	89	0	0
Stage 1	74	-	-	-	-
Stage 2	94	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	820	985	1500	-	-
Stage 1	946	-	-	-	-
Stage 2	927	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	808	985	1500	-	-
Mov Cap-2 Maneuver	808	-	-	-	-
Stage 1	932	-	-	-	-
Stage 2	927	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	2.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1500	-	838	-	-
HCM Lane V/C Ratio	0.014	-	0.026	-	-
HCM Control Delay (s)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	78	22	18	63	65	19
Future Vol, veh/h	78	22	18	63	65	19
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	85	24	20	68	71	21

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	190	82	92	0	-	0
Stage 1	82	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	797	975	1496	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	914	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	786	975	1496	-	-	-
Mov Cap-2 Maneuver	786	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1496	-	821	-	-
HCM Lane V/C Ratio	0.013	-	0.132	-	-
HCM Control Delay (s)	7.4	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	16	6	27	57	78	28
Future Vol, veh/h	16	6	27	57	78	28
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	17	7	29	62	85	30

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	220	100	115	0	-	0
Stage 1	100	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	766	953	1468	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	751	953	1468	-	-	-
Mov Cap-2 Maneuver	751	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	2.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1468	-	797	-	-
HCM Lane V/C Ratio	0.02	-	0.03	-	-
HCM Control Delay (s)	7.5	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	78	26	28	83	81	19
Future Vol, veh/h	78	26	28	83	81	19
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	85	28	30	90	88	21

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	249	99	109	0	0
Stage 1	99	-	-	-	-
Stage 2	150	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	737	954	1475	-	-
Stage 1	922	-	-	-	-
Stage 2	875	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	722	954	1475	-	-
Mov Cap-2 Maneuver	722	-	-	-	-
Stage 1	903	-	-	-	-
Stage 2	875	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1475	-	769	-	-
HCM Lane V/C Ratio	0.021	-	0.147	-	-
HCM Control Delay (s)	7.5	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Vol, veh/h	0	8	4	37	1	7	2	33	32	27	170	0
Future Vol, veh/h	0	8	4	37	1	7	2	33	32	27	170	0
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	-	-	-	-	-	-	-	-	-	-	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	9	4	40	1	8	2	36	35	29	185	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	305	318	185	308	301	54	185	0	0	71	0	0
Stage 1	243	243	-	58	58	-	-	-	-	-	-	-
Stage 2	62	75	-	250	243	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	645	597	855	642	610	1010	1384	-	-	1523	-	-
Stage 1	758	703	-	951	845	-	-	-	-	-	-	-
Stage 2	947	831	-	752	703	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	628	583	855	620	596	1010	1384	-	-	1523	-	-
Mov Cap-2 Maneuver	628	583	-	620	596	-	-	-	-	-	-	-
Stage 1	756	688	-	949	843	-	-	-	-	-	-	-
Stage 2	937	829	-	723	688	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.6		10.9		0.2		1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	652	659	1523	-
HCM Lane V/C Ratio	0.002	-	-	0.02	0.074	0.019	-
HCM Control Delay (s)	7.6	0	-	10.6	10.9	7.4	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-

HCM 6th TWSC  
4: Hague Rd/Stringtown Pike & Anchor Bay Dr/216th St

Existing PM Peak  
12/11/2023

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Vol, veh/h	0	4	13	51	9	51	21	195	51	25	114	0
Future Vol, veh/h	0	4	13	51	9	51	21	195	51	25	114	0
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	-	-	-	-	-	-	-	-	-	-	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	4	14	55	10	55	23	212	55	27	124	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	496	491	124	473	464	240	124	0	0	267	0	0
Stage 1	178	178	-	286	286	-	-	-	-	-	-	-
Stage 2	318	313	-	187	178	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	483	477	924	500	494	796	1457	-	-	1291	-	-
Stage 1	821	750	-	719	673	-	-	-	-	-	-	-
Stage 2	691	655	-	812	750	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	428	457	924	474	474	796	1457	-	-	1291	-	-
Mov Cap-2 Maneuver	428	457	-	474	474	-	-	-	-	-	-	-
Stage 1	805	734	-	705	660	-	-	-	-	-	-	-
Stage 2	621	643	-	777	734	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	12.8	0.6	1.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1457	-	-	745	582	1291	-
HCM Lane V/C Ratio	0.016	-	-	0.025	0.207	0.021	-
HCM Control Delay (s)	7.5	0	-	10	12.8	7.8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.8	0.1	-

HCM 6th TWSC  
4: Hague Rd/Stringtown Pike & Anchor Bay Dr/216th St

Future AM Peak

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Vol, veh/h	0	8	4	41	1	11	2	36	37	83	173	0
Future Vol, veh/h	0	8	4	41	1	11	2	36	37	83	173	0
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	-	-	-	-	-	-	-	-	-	-	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	9	4	45	1	12	2	39	40	90	188	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	438	451	188	438	431	59	188	0	0	79	0	0
Stage 1	368	368	-	63	63	-	-	-	-	-	-	-
Stage 2	70	83	-	375	368	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	527	502	851	527	516	1004	1380	-	-	1513	-	-
Stage 1	650	620	-	945	840	-	-	-	-	-	-	-
Stage 2	937	824	-	644	620	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	493	468	851	490	481	1004	1380	-	-	1513	-	-
Mov Cap-2 Maneuver	493	468	-	490	481	-	-	-	-	-	-	-
Stage 1	649	579	-	943	838	-	-	-	-	-	-	-
Stage 2	923	822	-	589	579	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.7		12.3		0.2		2.4	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1380	-	-	551	548	1513	-
HCM Lane V/C Ratio	0.002	-	-	0.024	0.105	0.06	-
HCM Control Delay (s)	7.6	0	-	11.7	12.3	7.5	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.2	-

HCM 6th TWSC  
4: Hague Rd/Stringtown Pike & Anchor Bay Dr/216th St

Future PM Peak

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Vol, veh/h	0	4	13	56	9	103	21	203	59	45	121	0
Future Vol, veh/h	0	4	13	56	9	103	21	203	59	45	121	0
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	-	-	-	-	-	-	-	-	-	-	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	4	14	61	10	112	23	221	64	49	132	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	590	561	132	538	529	253	132	0	0	285	0	0
Stage 1	230	230	-	299	299	-	-	-	-	-	-	-
Stage 2	360	331	-	239	230	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	418	435	915	452	454	783	1447	-	-	1271	-	-
Stage 1	771	712	-	708	664	-	-	-	-	-	-	-
Stage 2	656	643	-	762	712	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	336	409	915	421	427	783	1447	-	-	1271	-	-
Mov Cap-2 Maneuver	336	409	-	421	427	-	-	-	-	-	-	-
Stage 1	756	682	-	695	651	-	-	-	-	-	-	-
Stage 2	543	631	-	714	682	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.2		13.9		0.6		2.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1447	-	-	709	588	1271	-
HCM Lane V/C Ratio	0.016	-	-	0.026	0.311	0.038	-
HCM Control Delay (s)	7.5	0	-	10.2	13.9	7.9	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	1.3	0.1	-

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	103	52	11	101	549	44
Future Vol, veh/h	103	52	11	101	549	44
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	112	57	12	110	597	48

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	755	621	645	0	-	0
Stage 1	621	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	375	486	935	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	370	486	935	-	-	-
Mov Cap-2 Maneuver	370	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.3	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	935	-	402	-	-
HCM Lane V/C Ratio	0.013	-	0.419	-	-
HCM Control Delay (s)	8.9	0	20.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	2	-	-



Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	59	44	91	558	248	88
Future Vol, veh/h	59	44	91	558	248	88
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	64	48	99	607	270	96

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1123	318	366	0	-	0
Stage 1	318	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	226	720	1187	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	438	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	198	720	1187	-	-	-
Mov Cap-2 Maneuver	198	-	-	-	-	-
Stage 1	642	-	-	-	-	-
Stage 2	438	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.3	1.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1187	-	287	-	-
HCM Lane V/C Ratio	0.083	-	0.39	-	-
HCM Control Delay (s)	8.3	0	25.3	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.8	-	-

Intersection						
Int Delay, s/veh	8.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	108	108	15	132	722	48
Future Vol, veh/h	108	108	15	132	722	48
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	117	117	16	143	785	52

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	986	811	837	0	-	0
Stage 1	811	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	274	378	793	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	853	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	268	378	793	-	-	-
Mov Cap-2 Maneuver	268	-	-	-	-	-
Stage 1	425	-	-	-	-	-
Stage 2	853	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	43.8	1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	793	-	314	-	-
HCM Lane V/C Ratio	0.021	-	0.748	-	-
HCM Control Delay (s)	9.6	0	43.8	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.1	-	5.7	-	-

Intersection						
Int Delay, s/veh	7.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	67	64	143	701	309	93
Future Vol, veh/h	67	64	143	701	309	93
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	73	70	155	762	336	101

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1459	387	437	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	1072	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	142	659	1117	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	108	659	1117	-	-	-
Mov Cap-2 Maneuver	108	-	-	-	-	-
Stage 1	519	-	-	-	-	-
Stage 2	327	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	71.6	1.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1117	-	183	-	-
HCM Lane V/C Ratio	0.139	-	0.778	-	-
HCM Control Delay (s)	8.7	0	71.6	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.5	-	5.2	-	-

Intersection			
Intersection Delay, s/veh	10.0		
Intersection LOS	B		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	234	159	837
Demand Flow Rate, veh/h	242	163	863
Vehicles Circulating, veh/h	809	121	16
Vehicles Exiting, veh/h	70	930	268
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	12.2	4.2	10.5
Approach LOS	B	A	B
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	242	163	863
Cap Entry Lane, veh/h	605	1220	1358
Entry HV Adj Factor	0.967	0.974	0.970
Flow Entry, veh/h	234	159	837
Cap Entry, veh/h	585	1188	1317
V/C Ratio	0.400	0.134	0.636
Control Delay, s/veh	12.2	4.2	10.5
LOS	B	A	B
95th %tile Queue, veh	2	0	5

Intersection			
Intersection Delay, s/veh	11.3		
Intersection LOS	B		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	143	917	437
Demand Flow Rate, veh/h	147	945	450
Vehicles Circulating, veh/h	346	75	160
Vehicles Exiting, veh/h	264	418	860
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.3	14.3	7.0
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	147	945	450
Cap Entry Lane, veh/h	970	1278	1172
Entry HV Adj Factor	0.973	0.971	0.971
Flow Entry, veh/h	143	917	437
Cap Entry, veh/h	943	1241	1138
V/C Ratio	0.152	0.739	0.384
Control Delay, s/veh	5.3	14.3	7.0
LOS	A	B	A
95th %tile Queue, veh	1	7	2

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	0	0	242	3	7	648	0
Future Vol, veh/h	0	0	0	1	0	0	0	242	3	7	648	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	1	0	0	0	263	3	8	704	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	985	986	704	985	985	265	704	0	0	266	0	0
Stage 1	720	720	-	265	265	-	-	-	-	-	-	-
Stage 2	265	266	-	720	720	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	226	247	435	226	247	771	889	-	-	1292	-	-
Stage 1	418	431	-	738	688	-	-	-	-	-	-	-
Stage 2	738	687	-	418	431	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	224	245	435	224	245	771	889	-	-	1292	-	-
Mov Cap-2 Maneuver	224	245	-	224	245	-	-	-	-	-	-	-
Stage 1	418	427	-	738	688	-	-	-	-	-	-	-
Stage 2	738	687	-	414	427	-	-	-	-	-	-	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0	21.2	0	0.1
HCM LOS	A	C		

Minor Lane/Major Mvmt	NEL	NET	NER	EBLn1WBLn1	SWL	SWT	SWR
Capacity (veh/h)	889	-	-	-	224	1292	-
HCM Lane V/C Ratio	-	-	-	-	0.005	0.006	-
HCM Control Delay (s)	0	-	-	0	21.2	7.8	0
HCM Lane LOS	A	-	-	A	C	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	13	0	6	0	745	12	5	381	0
Future Vol, veh/h	0	0	0	13	0	6	0	745	12	5	381	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	14	0	7	0	810	13	5	414	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1244	1247	414	1241	1241	817	414	0	0	823	0	0
Stage 1	424	424	-	817	817	-	-	-	-	-	-	-
Stage 2	820	823	-	424	424	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	150	173	636	151	174	375	1140	-	-	802	-	-
Stage 1	606	585	-	369	389	-	-	-	-	-	-	-
Stage 2	368	386	-	606	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	147	172	636	150	173	375	1140	-	-	802	-	-
Mov Cap-2 Maneuver	147	172	-	150	173	-	-	-	-	-	-	-
Stage 1	606	580	-	369	389	-	-	-	-	-	-	-
Stage 2	362	386	-	601	580	-	-	-	-	-	-	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0	26.9	0	0.1
HCM LOS	A	D		

Minor Lane/Major Mvmt	NEL	NET	NER	EBLn1WBLn1	SWL	SWT	SWR
Capacity (veh/h)	1140	-	-	-	185	802	-
HCM Lane V/C Ratio	-	-	-	-	0.112	0.007	-
HCM Control Delay (s)	0	-	-	0	26.9	9.5	0
HCM Lane LOS	A	-	-	A	D	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	0	0	285	5	0	843	0
Future Vol, veh/h	0	0	0	1	0	0	0	285	5	0	843	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	1	0	0	0	310	5	0	916	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1229	1231	916	1229	1229	313	916	0	0	315	0	0
Stage 1	916	916	-	313	313	-	-	-	-	-	-	-
Stage 2	313	315	-	916	916	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	154	177	329	154	177	725	740	-	-	1240	-	-
Stage 1	325	350	-	696	655	-	-	-	-	-	-	-
Stage 2	696	654	-	325	350	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	154	177	329	154	177	725	740	-	-	1240	-	-
Mov Cap-2 Maneuver	154	177	-	154	177	-	-	-	-	-	-	-
Stage 1	325	350	-	696	655	-	-	-	-	-	-	-
Stage 2	696	654	-	325	350	-	-	-	-	-	-	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0	28.5	0	0
HCM LOS	A	D		

Minor Lane/Major Mvmt	NEL	NET	NER	EBLn1WBLn1	SWL	SWT	SWR
Capacity (veh/h)	740	-	-	-	154	1240	-
HCM Lane V/C Ratio	-	-	-	-	0.007	-	-
HCM Control Delay (s)	0	-	-	0	28.5	0	-
HCM Lane LOS	A	-	-	A	D	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-



Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	17	0	6	0	929	16	5	456	0
Future Vol, veh/h	0	0	0	17	0	6	0	929	16	5	456	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	18	0	7	0	1010	17	5	496	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1528	1533	496	1525	1525	1019	496	0	0	1027	0	0
Stage 1	506	506	-	1019	1019	-	-	-	-	-	-	-
Stage 2	1022	1027	-	506	506	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	95	116	572	96	117	286	1063	-	-	672	-	-
Stage 1	547	538	-	285	313	-	-	-	-	-	-	-
Stage 2	283	310	-	547	538	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	92	115	572	95	116	286	1063	-	-	672	-	-
Mov Cap-2 Maneuver	92	115	-	95	116	-	-	-	-	-	-	-
Stage 1	547	533	-	285	313	-	-	-	-	-	-	-
Stage 2	277	310	-	542	533	-	-	-	-	-	-	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0	44.8	0	0.1
HCM LOS	A	E		

Minor Lane/Major Mvmt	NEL	NET	NER	EBLn1WBLn1	SWL	SWT	SWR
Capacity (veh/h)	1063	-	-	-	115	672	-
HCM Lane V/C Ratio	-	-	-	-	0.217	0.008	-
HCM Control Delay (s)	0	-	-	0	44.8	10.4	0
HCM Lane LOS	A	-	-	A	E	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.8	0	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	246	0	0	661
Future Vol, veh/h	0	0	246	0	0	661
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	267	0	0	718

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	985	267	0	0	267	0
Stage 1	267	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	274	769	-	-	1291	-
Stage 1	775	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	274	769	-	-	1291	-
Mov Cap-2 Maneuver	274	-	-	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	481	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1291
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	0	0	789	0	0	400
Future Vol, veh/h	0	0	789	0	0	400
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	858	0	0	435

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1293	858	0	0	858
Stage 1	858	-	-	-	-
Stage 2	435	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	179	355	-	-	779
Stage 1	414	-	-	-	-
Stage 2	650	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	179	355	-	-	779
Mov Cap-2 Maneuver	179	-	-	-	-
Stage 1	414	-	-	-	-
Stage 2	650	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	779
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		T			T
Traffic Vol, veh/h	0	0	300	0	0	893
Future Vol, veh/h	0	0	300	0	0	893
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	326	0	0	971

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1297	326	0	0	326	0
Stage 1	326	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	178	713	-	-	1228	-
Stage 1	729	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	178	713	-	-	1228	-
Mov Cap-2 Maneuver	178	-	-	-	-	-
Stage 1	729	-	-	-	-	-
Stage 2	366	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1228
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WT		TB			BT
Traffic Vol, veh/h	0	0	1022	0	0	502
Future Vol, veh/h	0	0	1022	0	0	502
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	1111	0	0	546

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1657	1111	0	0	1111	0
Stage 1	1111	-	-	-	-	-
Stage 2	546	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	107	253	-	-	625	-
Stage 1	314	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	107	253	-	-	625	-
Mov Cap-2 Maneuver	107	-	-	-	-	-
Stage 1	314	-	-	-	-	-
Stage 2	578	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	625
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	86	76	0
Future Vol, veh/h	0	0	0	86	76	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	0	93	83	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	176	83	83	0	0
Stage 1	83	-	-	-	-
Stage 2	93	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	811	974	1508	-	-
Stage 1	938	-	-	-	-
Stage 2	928	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	811	974	1508	-	-
Mov Cap-2 Maneuver	811	-	-	-	-
Stage 1	938	-	-	-	-
Stage 2	928	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1508	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	4	6	82	43	3
Future Vol, veh/h	0	4	6	82	43	3
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	4	7	89	47	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	152	49	50	0	0
Stage 1	49	-	-	-	-
Stage 2	103	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	837	1017	1550	-	-
Stage 1	971	-	-	-	-
Stage 2	919	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	833	1017	1550	-	-
Mov Cap-2 Maneuver	833	-	-	-	-
Stage 1	966	-	-	-	-
Stage 2	919	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1550	-	1017	-	-
HCM Lane V/C Ratio	0.004	-	0.004	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	20	5	100	99	0
Future Vol, veh/h	1	20	5	100	99	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	22	5	109	108	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	227	108	108	0	-	0
Stage 1	108	-	-	-	-	-
Stage 2	119	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	759	943	1476	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	756	943	1476	-	-	-
Mov Cap-2 Maneuver	756	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	904	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1476	-	932	-	-
HCM Lane V/C Ratio	0.004	-	0.024	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	18	32	102	52	3
Future Vol, veh/h	0	18	32	102	52	3
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	20	35	111	57	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	240	59	60	0	0
Stage 1	59	-	-	-	-
Stage 2	181	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	746	1004	1537	-	-
Stage 1	961	-	-	-	-
Stage 2	848	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	728	1004	1537	-	-
Mov Cap-2 Maneuver	728	-	-	-	-
Stage 1	938	-	-	-	-
Stage 2	848	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1537	-	1004	-	-
HCM Lane V/C Ratio	0.023	-	0.019	-	-
HCM Control Delay (s)	7.4	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WT		BT			BT
Traffic Vol, veh/h	28	0	6	0	0	15
Future Vol, veh/h	28	0	6	0	0	15
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	30	0	7	0	0	16

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	23	7	0	0	7
Stage 1	7	-	-	-	-
Stage 2	16	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	991	1072	-	-	1607
Stage 1	1013	-	-	-	-
Stage 2	1004	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	991	1072	-	-	1607
Mov Cap-2 Maneuver	991	-	-	-	-
Stage 1	1013	-	-	-	-
Stage 2	1004	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	991	1607
HCM Lane V/C Ratio	-	-	0.031	-
HCM Control Delay (s)	-	-	8.7	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	3	0	22	11	0	18
Future Vol, veh/h	3	0	22	11	0	18
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	0	24	12	0	20

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	50	30	0	0	36	0
Stage 1	30	-	-	-	-	-
Stage 2	20	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	957	1042	-	-	1568	-
Stage 1	990	-	-	-	-	-
Stage 2	1000	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	957	1042	-	-	1568	-
Mov Cap-2 Maneuver	957	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	1000	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	957	1568
HCM Lane V/C Ratio	-	-	0.003	-
HCM Control Delay (s)	-	-	8.8	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	4.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	0	9	1	0	19
Future Vol, veh/h	28	0	9	1	0	19
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	30	0	10	1	0	21

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	32	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	21	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	979	1067	-	-	1602	-
Stage 1	1009	-	-	-	-	-
Stage 2	999	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	979	1067	-	-	1602	-
Mov Cap-2 Maneuver	979	-	-	-	-	-
Stage 1	1009	-	-	-	-	-
Stage 2	999	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	979	1602
HCM Lane V/C Ratio	-	-	0.031	-
HCM Control Delay (s)	-	-	8.8	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	0	28	11	0	28
Future Vol, veh/h	3	0	28	11	0	28
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	0	30	12	0	30

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	66	36	0	0	42
Stage 1	36	-	-	-	-
Stage 2	30	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	937	1034	-	-	1561
Stage 1	984	-	-	-	-
Stage 2	990	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	937	1034	-	-	1561
Mov Cap-2 Maneuver	937	-	-	-	-
Stage 1	984	-	-	-	-
Stage 2	990	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	937	1561
HCM Lane V/C Ratio	-	-	0.003	-
HCM Control Delay (s)	-	-	8.9	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	79	0	0	217
Future Vol, veh/h	0	0	79	0	0	217
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	86	0	0	236

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	322	86	0	0	86	0
Stage 1	86	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	670	970	-	-	1504	-
Stage 1	935	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	670	970	-	-	1504	-
Mov Cap-2 Maneuver	670	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	801	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1504	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	277	2	0	184
Future Vol, veh/h	0	0	277	2	0	184
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	301	2	0	200

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	502	302	0	0	303	0
Stage 1	302	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	527	735	-	-	1252	-
Stage 1	748	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	527	735	-	-	1252	-
Mov Cap-2 Maneuver	527	-	-	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	831	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1252
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	7	0	87	1	0	224
Future Vol, veh/h	7	0	87	1	0	224
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	8	0	95	1	0	243

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	339	96	0	0	96	0
Stage 1	96	-	-	-	-	-
Stage 2	243	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	655	958	-	-	1491	-
Stage 1	925	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	655	958	-	-	1491	-
Mov Cap-2 Maneuver	655	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	795	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	655	1491
HCM Lane V/C Ratio	-	-	0.012	-
HCM Control Delay (s)	-	-	10.6	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0



Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WT		TB			BT
Traffic Vol, veh/h	3	1	292	9	0	196
Future Vol, veh/h	3	1	292	9	0	196
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	1	317	10	0	213

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	535	322	0	0	327	0
Stage 1	322	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	504	717	-	-	1227	-
Stage 1	732	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	504	717	-	-	1227	-
Mov Cap-2 Maneuver	504	-	-	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	820	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	544	1227
HCM Lane V/C Ratio	-	-	0.008	-
HCM Control Delay (s)	-	-	11.7	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	5	255	7	11	211	3	83	0	111	41	1	48
Future Vol, veh/h	5	255	7	11	211	3	83	0	111	41	1	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	277	8	12	229	3	90	0	121	45	1	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	285	0	0	572	547	281	605	548	229
Stage 1	-	-	-	-	-	-	291	291	-	253	253	-
Stage 2	-	-	-	-	-	-	281	256	-	352	295	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1330	-	-	1271	-	-	429	443	755	408	443	808
Stage 1	-	-	-	-	-	-	715	670	-	749	696	-
Stage 2	-	-	-	-	-	-	724	694	-	663	667	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1330	-	-	1271	-	-	396	436	755	339	436	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	396	436	-	339	436	-
Stage 1	-	-	-	-	-	-	712	667	-	746	688	-
Stage 2	-	-	-	-	-	-	669	686	-	555	664	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			15.7			14.1		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	544	1330	-	-	1271	-	-	493
HCM Lane V/C Ratio	0.388	0.004	-	-	0.009	-	-	0.198
HCM Control Delay (s)	15.7	7.7	0	-	7.9	0	-	14.1
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.8	0	-	-	0	-	-	0.7

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	61	390	66	123	356	56	39	1	74	35	3	21
Future Vol, veh/h	61	390	66	123	356	56	39	1	74	35	3	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	66	424	72	134	387	61	42	1	80	38	3	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	448	0	0	496	0	0	1291	1308	460	1288	1283	387
Stage 1	-	-	-	-	-	-	592	592	-	655	655	-
Stage 2	-	-	-	-	-	-	699	716	-	633	628	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1107	-	-	1063	-	-	139	159	599	140	164	659
Stage 1	-	-	-	-	-	-	491	492	-	453	461	-
Stage 2	-	-	-	-	-	-	429	433	-	466	474	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1107	-	-	1063	-	-	107	121	599	98	125	659
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	121	-	98	125	-
Stage 1	-	-	-	-	-	-	450	451	-	415	383	-
Stage 2	-	-	-	-	-	-	341	360	-	369	435	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			2			37.6			49.2		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	230	1107	-	-	1063	-	-	143
HCM Lane V/C Ratio	0.539	0.06	-	-	0.126	-	-	0.448
HCM Control Delay (s)	37.6	8.5	0	-	8.9	0	-	49.2
HCM Lane LOS	E	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	2.9	0.2	-	-	0.4	-	-	2

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	5	255	7	11	211	3	83	0	111	41	1	48
Future Vol, veh/h	5	255	7	11	211	3	83	0	111	41	1	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	277	8	12	229	3	90	0	121	45	1	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	285	0	0	572	547	281	607	550	231
Stage 1	-	-	-	-	-	-	291	291	-	255	255	-
Stage 2	-	-	-	-	-	-	281	256	-	352	295	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1330	-	-	1271	-	-	429	443	755	407	441	806
Stage 1	-	-	-	-	-	-	715	670	-	747	695	-
Stage 2	-	-	-	-	-	-	724	694	-	663	667	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1330	-	-	1271	-	-	396	437	755	339	435	806
Mov Cap-2 Maneuver	-	-	-	-	-	-	396	437	-	339	435	-
Stage 1	-	-	-	-	-	-	712	667	-	744	689	-
Stage 2	-	-	-	-	-	-	670	688	-	555	664	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.1			0.4			13.3			13.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	396	755	1330	-	-	1271	-	-	339	792
HCM Lane V/C Ratio	0.228	0.16	0.004	-	-	0.009	-	-	0.131	0.067
HCM Control Delay (s/veh)	16.8	10.7	7.7	0	-	7.9	-	-	17.2	9.9
HCM Lane LOS	C	B	A	A	-	A	-	-	C	A
HCM 95th %tile Q (veh)	0.9	0.6	0	-	-	0	-	-	0.4	0.2

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	61	390	66	123	356	56	39	1	74	35	3	21
Future Vol, veh/h	61	390	66	123	356	56	39	1	74	35	3	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	66	424	72	134	387	61	42	1	80	38	3	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	448	0	0	496	0	0	1291	1308	460	1319	1314	418
Stage 1	-	-	-	-	-	-	592	592	-	686	686	-
Stage 2	-	-	-	-	-	-	699	716	-	633	628	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1107	-	-	1063	-	-	139	159	599	133	157	633
Stage 1	-	-	-	-	-	-	491	492	-	436	446	-
Stage 2	-	-	-	-	-	-	429	433	-	466	474	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1107	-	-	1063	-	-	111	127	599	97	126	633
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	127	-	97	126	-
Stage 1	-	-	-	-	-	-	450	451	-	400	390	-
Stage 2	-	-	-	-	-	-	358	378	-	369	435	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1			2			27.4			43.9		
HCM LOS							D			E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	111	571	1107	-	-	1063	-	-	97	421
HCM Lane V/C Ratio	0.382	0.143	0.06	-	-	0.126	-	-	0.392	0.062
HCM Control Delay (s/veh)	56.2	12.4	8.5	0	-	8.9	-	-	64.3	14.1
HCM Lane LOS	F	B	A	A	-	A	-	-	F	B
HCM 95th %tile Q (veh)	1.6	0.5	0.2	-	-	0.4	-	-	1.6	0.2

Intersection												
Int Delay, s/veh	11.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	5	632	7	11	320	3	83	0	111	41	1	48
Future Vol, veh/h	5	632	7	11	320	3	83	0	111	41	1	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	687	8	12	348	3	90	0	121	45	1	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	351	0	0	695	0	0	1101	1076	691	1134	1077	348
Stage 1	-	-	-	-	-	-	701	701	-	372	372	-
Stage 2	-	-	-	-	-	-	400	375	-	762	705	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1202	-	-	896	-	-	188	218	443	179	218	693
Stage 1	-	-	-	-	-	-	428	439	-	646	617	-
Stage 2	-	-	-	-	-	-	624	615	-	396	438	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1202	-	-	896	-	-	170	213	443	128	213	693
Mov Cap-2 Maneuver	-	-	-	-	-	-	170	213	-	128	213	-
Stage 1	-	-	-	-	-	-	425	436	-	641	607	-
Stage 2	-	-	-	-	-	-	566	605	-	286	435	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			57.3			32.2		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	263	1202	-	-	896	-	-	228
HCM Lane V/C Ratio	0.802	0.005	-	-	0.013	-	-	0.429
HCM Control Delay (s)	57.3	8	0	-	9.1	0	-	32.2
HCM Lane LOS	F	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	6.2	0	-	-	0	-	-	2

Intersection

Int Delay, s/veh 73.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	61	682	66	123	813	56	39	1	74	35	3	21
Future Vol, veh/h	61	682	66	123	813	56	39	1	74	35	3	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	66	741	72	134	884	61	42	1	80	38	3	23

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	945	0	0	813	0	0	2105	2122	777	2102	2097	884
Stage 1	-	-	-	-	-	-	909	909	-	1152	1152	-
Stage 2	-	-	-	-	-	-	1196	1213	-	950	945	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	722	-	-	809	-	-	~ 37	50	395	~ 37	52	343
Stage 1	-	-	-	-	-	-	328	352	-	239	271	-
Stage 2	-	-	-	-	-	-	226	253	-	311	339	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	722	-	-	809	-	-	~ 20	27	395	~ 18	28	343
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 20	27	-	~ 18	28	-
Stage 1	-	-	-	-	-	-	273	293	-	199	175	-
Stage 2	-	-	-	-	-	-	134	163	-	205	282	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.3	\$ 799	\$ 889.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	52	722	-	-	809	-	-	28
HCM Lane V/C Ratio	2.383	0.092	-	-	0.165	-	-	2.29
HCM Control Delay (s)	\$ 799	10.5	0	-	10.3	0	-	\$ 889.5
HCM Lane LOS	F	B	A	-	B	A	-	F
HCM 95th %tile Q(veh)	12.7	0.3	-	-	0.6	-	-	7.7

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection				
Intersection Delay, s/veh	8.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	700	363	211	98
Demand Flow Rate, veh/h	721	373	218	101
Vehicles Circulating, veh/h	59	98	759	463
Vehicles Exiting, veh/h	505	879	21	8
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.1	5.7	10.6	5.5
Approach LOS	A	A	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	721	373	218	101
Cap Entry Lane, veh/h	1299	1249	636	861
Entry HV Adj Factor	0.971	0.972	0.968	0.970
Flow Entry, veh/h	700	363	211	98
Cap Entry, veh/h	1262	1214	616	835
V/C Ratio	0.555	0.299	0.343	0.117
Control Delay, s/veh	9.1	5.7	10.6	5.5
LOS	A	A	B	A
95th %tile Queue, veh	4	1	2	0



Intersection				
Intersection Delay, s/veh	21.8			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	879	1079	123	64
Demand Flow Rate, veh/h	905	1112	126	66
Vehicles Circulating, veh/h	180	112	870	1092
Vehicles Exiting, veh/h	978	884	215	132
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	18.0	27.0	9.4	10.3
Approach LOS	C	D	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	905	1112	126	66
Cap Entry Lane, veh/h	1148	1231	568	453
Entry HV Adj Factor	0.971	0.971	0.976	0.968
Flow Entry, veh/h	879	1079	123	64
Cap Entry, veh/h	1115	1195	555	439
V/C Ratio	0.788	0.903	0.222	0.146
Control Delay, s/veh	18.0	27.0	9.4	10.3
LOS	C	D	A	B
95th %tile Queue, veh	9	14	1	1

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	223	5	16	318	11	18	0	8	43	1	21
Future Vol, veh/h	2	223	5	16	318	11	18	0	8	43	1	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	242	5	17	346	12	20	0	9	47	1	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	358	0	0	247	0	0	647	641	245	639	637	352
Stage 1	-	-	-	-	-	-	249	249	-	386	386	-
Stage 2	-	-	-	-	-	-	398	392	-	253	251	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1195	-	-	1313	-	-	383	392	791	387	394	689
Stage 1	-	-	-	-	-	-	753	699	-	635	608	-
Stage 2	-	-	-	-	-	-	626	605	-	749	697	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1313	-	-	365	385	791	377	387	689
Mov Cap-2 Maneuver	-	-	-	-	-	-	365	385	-	377	387	-
Stage 1	-	-	-	-	-	-	751	698	-	634	598	-
Stage 2	-	-	-	-	-	-	594	595	-	739	696	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			13.8			14.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	437	1195	-	-	1313	-	-	442
HCM Lane V/C Ratio	0.065	0.002	-	-	0.013	-	-	0.16
HCM Control Delay (s)	13.8	8	0	-	7.8	0	-	14.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.6

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	491	18	19	326	85	15	3	19	34	0	10
Future Vol, veh/h	20	491	18	19	326	85	15	3	19	34	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	22	534	20	21	354	92	16	3	21	37	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	446	0	0	554	0	0	1036	1076	544	1042	1040	400
Stage 1	-	-	-	-	-	-	588	588	-	442	442	-
Stage 2	-	-	-	-	-	-	448	488	-	600	598	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1109	-	-	1011	-	-	209	218	537	207	229	648
Stage 1	-	-	-	-	-	-	493	494	-	592	575	-
Stage 2	-	-	-	-	-	-	588	548	-	486	489	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1109	-	-	1011	-	-	197	206	537	188	216	648
Mov Cap-2 Maneuver	-	-	-	-	-	-	197	206	-	188	216	-
Stage 1	-	-	-	-	-	-	479	480	-	575	559	-
Stage 2	-	-	-	-	-	-	562	533	-	451	475	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.4			19.2			25.4		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	293	1109	-	-	1011	-	-	224
HCM Lane V/C Ratio	0.137	0.02	-	-	0.02	-	-	0.214
HCM Control Delay (s)	19.2	8.3	0	-	8.6	0	-	25.4
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.1	-	-	0.8

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	510	5	16	360	60	18	0	8	61	1	29
Future Vol, veh/h	5	510	5	16	360	60	18	0	8	61	1	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	554	5	17	391	65	20	0	9	66	1	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	456	0	0	559	0	0	1041	1057	557	1029	1027	424
Stage 1	-	-	-	-	-	-	567	567	-	458	458	-
Stage 2	-	-	-	-	-	-	474	490	-	571	569	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1100	-	-	1007	-	-	207	224	528	211	233	628
Stage 1	-	-	-	-	-	-	507	505	-	581	565	-
Stage 2	-	-	-	-	-	-	569	547	-	504	504	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1100	-	-	1007	-	-	191	217	528	203	226	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	191	217	-	203	226	-
Stage 1	-	-	-	-	-	-	503	501	-	577	552	-
Stage 2	-	-	-	-	-	-	527	534	-	492	500	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			22.2			27.2		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	238	1100	-	-	1007	-	-	259
HCM Lane V/C Ratio	0.119	0.005	-	-	0.017	-	-	0.382
HCM Control Delay (s)	22.2	8.3	0	-	8.6	0	-	27.2
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	1.7

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	726	18	19	446	334	15	3	19	40	0	18
Future Vol, veh/h	30	726	18	19	446	334	15	3	19	40	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	33	789	20	21	485	363	16	3	21	43	0	20

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	848	0	0	809	0	0	1584	1755	799	1586	1584	667
Stage 1	-	-	-	-	-	-	865	865	-	709	709	-
Stage 2	-	-	-	-	-	-	719	890	-	877	875	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	785	-	-	812	-	-	87	85	384	87	108	457
Stage 1	-	-	-	-	-	-	347	369	-	423	436	-
Stage 2	-	-	-	-	-	-	418	360	-	342	366	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	785	-	-	812	-	-	75	74	384	72	94	457
Mov Cap-2 Maneuver	-	-	-	-	-	-	75	74	-	72	94	-
Stage 1	-	-	-	-	-	-	320	341	-	390	413	-
Stage 2	-	-	-	-	-	-	379	341	-	296	338	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0.4		0.2		45.5		94	
HCM LOS					E		F	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	128	785	-	-	812	-	-	97
HCM Lane V/C Ratio	0.314	0.042	-	-	0.025	-	-	0.65
HCM Control Delay (s)	45.5	9.8	0	-	9.5	0	-	94
HCM Lane LOS	E	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	3.2

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	206	0	0	345	22	0	0	0	24	0	50
Future Vol, veh/h	38	206	0	0	345	22	0	0	0	24	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	41	224	0	0	375	24	0	0	0	26	0	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	399	0	0	224	0	0	720	705	224	693	693	387
Stage 1	-	-	-	-	-	-	306	306	-	387	387	-
Stage 2	-	-	-	-	-	-	414	399	-	306	306	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1154	-	-	1339	-	-	342	360	813	356	366	659
Stage 1	-	-	-	-	-	-	702	660	-	635	608	-
Stage 2	-	-	-	-	-	-	614	600	-	702	660	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1154	-	-	1339	-	-	304	345	813	345	351	659
Mov Cap-2 Maneuver	-	-	-	-	-	-	304	345	-	345	351	-
Stage 1	-	-	-	-	-	-	673	633	-	609	608	-
Stage 2	-	-	-	-	-	-	563	600	-	673	633	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0			0			13.4		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1154	-	-	1339	-	-	509
HCM Lane V/C Ratio	-	0.036	-	-	-	-	-	0.158
HCM Control Delay (s)	0	8.2	0	-	0	-	-	13.4
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.6

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	492	0	0	325	38	0	0	0	46	0	50
Future Vol, veh/h	52	492	0	0	325	38	0	0	0	46	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	57	535	0	0	353	41	0	0	0	50	0	54

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	394	0	0	535	0	0	1050	1043	535	1023	1023	374
Stage 1	-	-	-	-	-	-	649	649	-	374	374	-
Stage 2	-	-	-	-	-	-	401	394	-	649	649	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1159	-	-	1028	-	-	204	228	543	213	235	670
Stage 1	-	-	-	-	-	-	457	464	-	645	616	-
Stage 2	-	-	-	-	-	-	624	603	-	457	464	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1159	-	-	1028	-	-	177	212	543	201	219	670
Mov Cap-2 Maneuver	-	-	-	-	-	-	177	212	-	201	219	-
Stage 1	-	-	-	-	-	-	425	432	-	600	616	-
Stage 2	-	-	-	-	-	-	573	603	-	425	432	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0	0	21.9
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1159	-	-	1028	-	-	316
HCM Lane V/C Ratio	-	0.049	-	-	-	-	-	0.33
HCM Control Delay (s)	-	0	8.3	0	-	0	-	21.9
HCM Lane LOS	-	A	A	A	-	A	-	C
HCM 95th %tile Q(veh)	-	0.2	-	-	0	-	-	1.4

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	228	0	0	388	35	0	0	0	47	0	51
Future Vol, veh/h	40	228	0	0	388	35	0	0	0	47	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	43	248	0	0	422	38	0	0	0	51	0	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	248	0	0	803	794	248	775	775	441
Stage 1	-	-	-	-	-	-	334	334	-	441	441	-
Stage 2	-	-	-	-	-	-	469	460	-	334	334	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1096	-	-	1312	-	-	301	320	788	314	328	614
Stage 1	-	-	-	-	-	-	678	641	-	593	575	-
Stage 2	-	-	-	-	-	-	573	564	-	678	641	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1096	-	-	1312	-	-	264	306	788	303	313	614
Mov Cap-2 Maneuver	-	-	-	-	-	-	264	306	-	303	313	-
Stage 1	-	-	-	-	-	-	647	612	-	566	575	-
Stage 2	-	-	-	-	-	-	521	564	-	647	612	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	0	16.8
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1096	-	-	1312	-	-	411
HCM Lane V/C Ratio	-	0.04	-	-	-	-	-	0.259
HCM Control Delay (s)	0	8.4	0	-	0	-	-	16.8
HCM Lane LOS	A	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	1



Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	53	564	0	0	359	64	0	0	0	60	0	52
Future Vol, veh/h	53	564	0	0	359	64	0	0	0	60	0	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	58	613	0	0	390	70	0	0	0	65	0	57

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	613	0	0	1183	1189	613	1154	1154	425
Stage 1	-	-	-	-	-	-	729	729	-	425	425	-
Stage 2	-	-	-	-	-	-	454	460	-	729	729	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1096	-	-	961	-	-	166	187	491	173	196	627
Stage 1	-	-	-	-	-	-	413	427	-	605	585	-
Stage 2	-	-	-	-	-	-	584	564	-	413	427	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1096	-	-	961	-	-	142	172	491	162	180	627
Mov Cap-2 Maneuver	-	-	-	-	-	-	142	172	-	162	180	-
Stage 1	-	-	-	-	-	-	380	393	-	557	585	-
Stage 2	-	-	-	-	-	-	531	564	-	380	393	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	0	33
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1096	-	-	961	-	-	247
HCM Lane V/C Ratio	-	0.053	-	-	-	-	-	0.493
HCM Control Delay (s)	0	8.5	0	-	0	-	-	33
HCM Lane LOS	A	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	-	0.2	-	-	0	-	-	2.5

Intersection						
Int Delay, s/veh	7.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	70	93	568	55	16	150
Future Vol, veh/h	70	93	568	55	16	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	100	-	-	0	332
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	76	101	617	60	17	163

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	76	0	1370	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	1294	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1517	-	161	982
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	256	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1517	-	93	982
Mov Cap-2 Maneuver	-	-	-	-	93	-
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	148	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.2	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	93	982	-	-	1517	-
HCM Lane V/C Ratio	0.187	0.166	-	-	0.407	-
HCM Control Delay (s)	52.4	9.4	-	-	9	0
HCM Lane LOS	F	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	0.6	-	-	2	-

Intersection						
Int Delay, s/veh	10.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	↑
Traffic Vol, veh/h	173	80	323	44	57	508
Future Vol, veh/h	173	80	323	44	57	508
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	100	-	-	0	332
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	188	87	351	48	62	552

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	188	0	938	188
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	750	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1380	-	292	851
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	465	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1380	-	216	851
Mov Cap-2 Maneuver	-	-	-	-	216	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	344	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.5	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	216	851	-	-	1380	-
HCM Lane V/C Ratio	0.287	0.649	-	-	0.254	-
HCM Control Delay (s)	28.2	16.7	-	-	8.5	0
HCM Lane LOS	D	C	-	-	A	A
HCM 95th %tile Q(veh)	1.1	4.9	-	-	1	-

Intersection						
Int Delay, s/veh	8.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	72	106	612	55	18	172
Future Vol, veh/h	72	106	612	55	18	172
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	100	-	-	0	332
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	78	115	665	60	20	187

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	78	0	1468	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	1390	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1514	-	140	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	230	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1514	-	76	980
Mov Cap-2 Maneuver	-	-	-	-	76	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	126	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.5	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	76	980	-	-	1514	-
HCM Lane V/C Ratio	0.257	0.191	-	-	0.439	-
HCM Control Delay (s)	68.1	9.5	-	-	9.2	0
HCM Lane LOS	F	A	-	-	A	A
HCM 95th %tile Q(veh)	0.9	0.7	-	-	2.3	-

Intersection

Int Delay, s/veh 13.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	180	89	359	44	69	574
Future Vol, veh/h	180	89	359	44	69	574
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	100	-	-	0	332
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	196	97	390	48	75	624

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	196
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.13
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.227
Pot Cap-1 Maneuver	-	-	1371
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1371
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.7	22.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	184	843	-	-	1371	-
HCM Lane V/C Ratio	0.408	0.74	-	-	0.285	-
HCM Control Delay (s)	37.4	20.4	-	-	8.7	0
HCM Lane LOS	E	C	-	-	A	A
HCM 95th %tile Q(veh)	1.8	6.8	-	-	1.2	-

Intersection					
Intersection Delay, s/veh	5.3				
Intersection LOS	A				
Approach	EB		NB		SB
Entry Lanes	2		1		1
Conflicting Circle Lanes	1		1		1
Adj Approach Flow, veh/h	525		123		219
Demand Flow Rate, veh/h	541		127		225
Vehicles Circulating, veh/h	111		76		102
Vehicles Exiting, veh/h	216		576		101
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	5.9		3.7		4.5
Approach LOS	A		A		A
Lane	Left		Right		Left
Designated Moves	L		TR		LT
Assumed Moves	L		TR		LT
RT Channelized					
Lane Util	0.140	0.860	1.000		1.000
Follow-Up Headway, s	2.535	2.535	2.609		2.609
Critical Headway, s	4.544	4.544	4.976		4.976
Entry Flow, veh/h	76	465	127		225
Cap Entry Lane, veh/h	1284	1284	1277		1244
Entry HV Adj Factor	0.974	0.970	0.971		0.972
Flow Entry, veh/h	74	451	123		219
Cap Entry, veh/h	1250	1245	1239		1209
V/C Ratio	0.059	0.362	0.099		0.181
Control Delay, s/veh	3.4	6.3	3.7		4.5
LOS	A	A	A		A
95th %tile Queue, veh	0	2	0		1

Intersection					
Intersection Delay, s/veh	7.7				
Intersection LOS	A				
Approach	EB		NB		SB
Entry Lanes	2		1		1
Conflicting Circle Lanes	1		1		1
Adj Approach Flow, veh/h	510		648		194
Demand Flow Rate, veh/h	526		667		200
Vehicles Circulating, veh/h	99		160		494
Vehicles Exiting, veh/h	595		465		333
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	4.9		10.1		7.0
Approach LOS	A		B		A
Lane	Left	Right	Left	Left	
Designated Moves	L	TR	LT	TR	
Assumed Moves	L	TR	LT	TR	
RT Channelized					
Lane Util	0.304	0.696	1.000	1.000	
Follow-Up Headway, s	2.535	2.535	2.609	2.609	
Critical Headway, s	4.544	4.544	4.976	4.976	
Entry Flow, veh/h	160	366	667	200	
Cap Entry Lane, veh/h	1298	1298	1172	834	
Entry HV Adj Factor	0.969	0.970	0.971	0.971	
Flow Entry, veh/h	155	355	648	194	
Cap Entry, veh/h	1257	1259	1139	809	
V/C Ratio	0.123	0.282	0.569	0.240	
Control Delay, s/veh	3.9	5.4	10.1	7.0	
LOS	A	A	B	A	
95th %tile Queue, veh	0	1	4	1	

Intersection					
Intersection Delay, s/veh	9.5				
Intersection LOS	A				
Approach	EB		NB		SB
Entry Lanes	2		1		1
Conflicting Circle Lanes	1		1		1
Adj Approach Flow, veh/h	934		237		233
Demand Flow Rate, veh/h	962		244		240
Vehicles Circulating, veh/h	119		81		215
Vehicles Exiting, veh/h	336		1000		110
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	11.8		4.6		5.4
Approach LOS	B		A		A
Lane	Left		Right		Left
Designated Moves	L		TR		LT
Assumed Moves	L		TR		LT
RT Channelized					
Lane Util	0.084		0.916		1.000
Follow-Up Headway, s	2.535		2.535		2.609
Critical Headway, s	4.544		4.544		4.976
Entry Flow, veh/h	81		881		244
Cap Entry Lane, veh/h	1274		1274		1108
Entry HV Adj Factor	0.975		0.970		0.972
Flow Entry, veh/h	79		855		237
Cap Entry, veh/h	1243		1237		1074
V/C Ratio	0.064		0.691		0.192
Control Delay, s/veh	3.4		12.6		4.6
LOS	A		B		A
95th %tile Queue, veh	0		6		1



Intersection					
Intersection Delay, s/veh	31.5				
Intersection LOS	D				
Approach	EB		NB		SB
Entry Lanes	2		1		1
Conflicting Circle Lanes	1		1		1
Adj Approach Flow, veh/h	829		1143		210
Demand Flow Rate, veh/h	854		1177		216
Vehicles Circulating, veh/h	105		177		996
Vehicles Exiting, veh/h	1107		782		358
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	7.7		51.9		15.1
Approach LOS	A		F		C
Lane	Left		Right		Left
Designated Moves	L		TR		LT
Assumed Moves	L		TR		LT
RT Channelized					
Lane Util	0.207		0.793		1.000
Follow-Up Headway, s	2.535		2.535		2.609
Critical Headway, s	4.544		4.544		4.976
Entry Flow, veh/h	177		677		1177
Cap Entry Lane, veh/h	1291		1291		500
Entry HV Adj Factor	0.972		0.970		0.971
Flow Entry, veh/h	172		657		1143
Cap Entry, veh/h	1254		1253		486
V/C Ratio	0.137		0.525		1.022
Control Delay, s/veh	4.0		8.6		51.9
LOS	A		A		F
95th %tile Queue, veh	0		3		22

Intersection						
Int Delay, s/veh	5.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	81	66	29	336	234
Future Vol, veh/h	29	81	66	29	336	234
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	32	88	72	32	365	254

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1072	88	0	0	104	0
Stage 1	88	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	243	968	-	-	1481	-
Stage 1	933	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	173	968	-	-	1481	-
Mov Cap-2 Maneuver	173	-	-	-	-	-
Stage 1	933	-	-	-	-	-
Stage 2	257	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.3	0	4.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	438	1481
HCM Lane V/C Ratio	-	-	0.273	0.247
HCM Control Delay (s)	-	-	16.3	8.2
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.1	1

Intersection						
Int Delay, s/veh	45.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	345	389	124	282	235
Future Vol, veh/h	55	345	389	124	282	235
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	60	375	423	135	307	255












Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1360	491	0	0	558	0
Stage 1	491	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	163	575	-	-	1008	-
Stage 1	613	-	-	-	-	-
Stage 2	409	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	105	575	-	-	1008	-
Mov Cap-2 Maneuver	105	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	264	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	154.6	0	5.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	356	1008
HCM Lane V/C Ratio	-	-	1.221	0.304
HCM Control Delay (s)	-	-	154.6	10.1
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	18.6	1.3












HCM 6th Signalized Intersection Summary  
 26: Hague Rd & 206th St

Existing AM Peak  
 Mitigated - Final

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	29	81	66	29	336	234
Future Volume (veh/h)	29	81	66	29	336	234
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	32	88	72	32	365	254
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	377	622	337	150	787	1026
Arrive On Green	0.21	0.21	0.28	0.28	0.18	0.55
Sat Flow, veh/h	1767	1572	1217	541	1767	1856
Grp Volume(v), veh/h	32	88	0	104	365	254
Grp Sat Flow(s),veh/h/ln	1767	1572	0	1758	1767	1856
Q Serve(g_s), s	0.6	1.5	0.0	1.9	5.5	3.0
Cycle Q Clear(g_c), s	0.6	1.5	0.0	1.9	5.5	3.0
Prop In Lane	1.00	1.00		0.31	1.00	
Lane Grp Cap(c), veh/h	377	622	0	487	787	1026
V/C Ratio(X)	0.08	0.14	0.00	0.21	0.46	0.25
Avail Cap(c_a), veh/h	496	728	0	535	920	1216
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	8.3	0.0	11.9	6.8	5.0
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.2	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.4	0.0	0.6	1.1	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	13.6	8.4	0.0	12.1	7.3	5.1
LnGrp LOS	B	A		B	A	A
Approach Vol, veh/h	120		104			619
Approach Delay, s/veh	9.8		12.1			6.4
Approach LOS	A		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.8	16.8			28.6	14.1
Change Period (Y+Rc), s	4.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	11.0	13.0			28.0	12.0
Max Q Clear Time (g_c+I1), s	7.5	3.9			5.0	3.5
Green Ext Time (p_c), s	0.4	0.2			1.3	0.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			7.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary  
 26: Hague Rd & 206th St

Existing PM Peak  
 Mitigated - Final

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	55	345	389	124	282	235
Future Volume (veh/h)	55	345	389	124	282	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	60	375	423	135	307	255
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	578	491	157	445	1075
Arrive On Green	0.23	0.23	0.36	0.36	0.14	0.58
Sat Flow, veh/h	1767	1572	1348	430	1767	1856
Grp Volume(v), veh/h	60	375	0	558	307	255
Grp Sat Flow(s),veh/h/ln	1767	1572	0	1778	1767	1856
Q Serve(g_s), s	1.4	10.4	0.0	15.2	5.0	3.5
Cycle Q Clear(g_c), s	1.4	10.4	0.0	15.2	5.0	3.5
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	405	578	0	648	445	1075
V/C Ratio(X)	0.15	0.65	0.00	0.86	0.69	0.24
Avail Cap(c_a), veh/h	405	578	0	816	538	1348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	13.7	0.0	15.4	10.5	5.4
Incr Delay (d2), s/veh	0.2	2.5	0.0	7.7	2.9	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.3	0.0	6.0	1.5	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	16.2	16.3	0.0	23.1	13.4	5.5
LnGrp LOS	B	B		C	B	A
Approach Vol, veh/h	435		558			562
Approach Delay, s/veh	16.3		23.1			9.8
Approach LOS	B		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.2	24.1			35.3	17.0
Change Period (Y+Rc), s	4.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	10.0	24.0			38.0	12.0
Max Q Clear Time (g_c+I1), s	7.0	17.2			5.5	12.4
Green Ext Time (p_c), s	0.3	1.9			1.4	0.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			16.4			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	16					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	133	119	29	534	415
Future Vol, veh/h	29	133	119	29	534	415
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	32	145	129	32	580	451

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1756	145	0	0	161	0
Stage 1	145	-	-	-	-	-
Stage 2	1611	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	93	900	-	-	1412	-
Stage 1	880	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	42	900	-	-	1412	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	81	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	93.6	0	5.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	193	1412
HCM Lane V/C Ratio	-	-	0.912	0.411
HCM Control Delay (s)	-	-	93.6	9.3
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	7.1	2.1

Intersection						
Int Delay, s/veh	615.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	617	574	124	451	349
Future Vol, veh/h	55	617	574	124	451	349
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	60	671	624	135	490	379

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2051	692	0	0	759	0
Stage 1	692	-	-	-	-	-
Stage 2	1359	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	61	~ 442	-	-	848	-
Stage 1	495	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 16	~ 442	-	-	848	-
Mov Cap-2 Maneuver	~ 16	-	-	-	-	-
Stage 1	495	-	-	-	-	-
Stage 2	64	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, \$ 1977.1		0	8.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	139	848
HCM Lane V/C Ratio	-	-	5.255	0.578
HCM Control Delay (s)	-	\$ 1977.1	14.9	0
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	77.5	3.8

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection			
Intersection Delay, s/veh	13.9		
Intersection LOS	B		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	177	161	1031
Demand Flow Rate, veh/h	182	166	1062
Vehicles Circulating, veh/h	133	597	33
Vehicles Exiting, veh/h	630	498	282
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.4	7.4	16.6
Approach LOS	A	A	C
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	182	166	1062
Cap Entry Lane, veh/h	1205	751	1334
Entry HV Adj Factor	0.973	0.971	0.971
Flow Entry, veh/h	177	161	1031
Cap Entry, veh/h	1172	729	1296
V/C Ratio	0.151	0.221	0.796
Control Delay, s/veh	4.4	7.4	16.6
LOS	A	A	C
95th %tile Queue, veh	1	1	9



Intersection			
Intersection Delay, s/veh	40.9		
Intersection LOS	E		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	731	759	869
Demand Flow Rate, veh/h	753	782	895
Vehicles Circulating, veh/h	643	505	62
Vehicles Exiting, veh/h	644	452	1334
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	72.6	43.0	12.5
Approach LOS	F	E	B
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	753	782	895
Cap Entry Lane, veh/h	716	824	1295
Entry HV Adj Factor	0.971	0.971	0.971
Flow Entry, veh/h	731	759	869
Cap Entry, veh/h	695	800	1257
V/C Ratio	1.051	0.949	0.691
Control Delay, s/veh	72.6	43.0	12.5
LOS	F	E	B
95th %tile Queue, veh	19	14	6

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	385	0	5	98	0	0	0	1	0	0	0
Future Vol, veh/h	0	385	0	5	98	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	418	0	5	107	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	418	0	0	535	535	418	536	535	107
Stage 1	-	-	-	-	-	-	418	418	-	117	117	-
Stage 2	-	-	-	-	-	-	117	117	-	419	418	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1478	-	-	1136	-	-	455	450	633	454	450	944
Stage 1	-	-	-	-	-	-	610	589	-	885	797	-
Stage 2	-	-	-	-	-	-	885	797	-	610	589	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1478	-	-	1136	-	-	453	448	633	451	448	944
Mov Cap-2 Maneuver	-	-	-	-	-	-	453	448	-	451	448	-
Stage 1	-	-	-	-	-	-	610	589	-	885	793	-
Stage 2	-	-	-	-	-	-	881	793	-	609	589	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.4			10.7			0		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1478	-	-	1136	-	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.005	-	-	-
HCM Control Delay (s)	10.7	0	-	-	8.2	0	-	0
HCM Lane LOS		B	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	401	6	8	387	1	8	0	4	1	0	0
Future Vol, veh/h	0	401	6	8	387	1	8	0	4	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	436	7	9	421	1	9	0	4	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	443	0	0	880	880	440	882	883	422
Stage 1	-	-	-	-	-	-	440	440	-	440	440	-
Stage 2	-	-	-	-	-	-	440	440	-	442	443	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1132	-	-	1112	-	-	267	285	615	266	284	630
Stage 1	-	-	-	-	-	-	594	576	-	594	576	-
Stage 2	-	-	-	-	-	-	594	576	-	592	574	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1132	-	-	1112	-	-	265	282	615	262	281	630
Mov Cap-2 Maneuver	-	-	-	-	-	-	265	282	-	262	281	-
Stage 1	-	-	-	-	-	-	594	576	-	594	570	-
Stage 2	-	-	-	-	-	-	587	570	-	588	574	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			16.5			18.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	327	1132	-	-	1112	-	-	262
HCM Lane V/C Ratio	0.04	-	-	-	0.008	-	-	0.004
HCM Control Delay (s)	16.5	0	-	-	8.3	0	-	18.8
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	491	1	5	150	5	0	0	2	20	0	0
Future Vol, veh/h	0	491	1	5	150	5	0	0	2	20	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	534	1	5	163	5	0	0	2	22	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	535	0	0	711	713	535	712	711	166
Stage 1	-	-	-	-	-	-	535	535	-	176	176	-
Stage 2	-	-	-	-	-	-	176	178	-	536	535	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1404	-	-	1028	-	-	347	356	543	346	357	876
Stage 1	-	-	-	-	-	-	527	522	-	823	752	-
Stage 2	-	-	-	-	-	-	823	750	-	527	522	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1404	-	-	1028	-	-	346	354	543	343	355	876
Mov Cap-2 Maneuver	-	-	-	-	-	-	346	354	-	343	355	-
Stage 1	-	-	-	-	-	-	527	522	-	823	748	-
Stage 2	-	-	-	-	-	-	819	746	-	525	522	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.3			11.7			16.2		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	543	1404	-	-	1028	-	-	343
HCM Lane V/C Ratio	0.004	-	-	-	0.005	-	-	0.063
HCM Control Delay (s)	11.7	0	-	-	8.5	0	-	16.2
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	570	6	8	659	12	9	11	5	13	0	0
Future Vol, veh/h	0	570	6	8	659	12	9	11	5	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	620	7	9	716	13	10	12	5	14	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	729	0	0	627	0	0	1365	1371	624	1373	1368	723
Stage 1	-	-	-	-	-	-	624	624	-	741	741	-
Stage 2	-	-	-	-	-	-	741	747	-	632	627	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	870	-	-	950	-	-	124	145	484	122	146	425
Stage 1	-	-	-	-	-	-	471	476	-	407	421	-
Stage 2	-	-	-	-	-	-	407	419	-	467	475	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	870	-	-	950	-	-	123	143	484	112	144	425
Mov Cap-2 Maneuver	-	-	-	-	-	-	123	143	-	112	144	-
Stage 1	-	-	-	-	-	-	471	476	-	407	414	-
Stage 2	-	-	-	-	-	-	400	412	-	450	475	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			32.9			41.7		
HCM LOS							D			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	156	870	-	-	950	-	-	112
HCM Lane V/C Ratio	0.174	-	-	-	0.009	-	-	0.126
HCM Control Delay (s)	32.9	0	-	-	8.8	0	-	41.7
HCM Lane LOS	D	A	-	-	A	A	-	E
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.4

HCM 6th Signalized Intersection Summary  
28: Cicero Rd/SR 19 & 206th St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Volume (veh/h)	13	195	137	93	83	24	16	80	17	116	437	11
Future Volume (veh/h)	13	195	137	93	83	24	16	80	17	116	437	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	14	212	149	101	90	26	17	87	18	126	475	12
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	119	357	241	356	285	66	330	527	109	613	655	555
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	24	1013	684	570	808	188	902	1491	309	1279	1856	1572
Grp Volume(v), veh/h	375	0	0	217	0	0	17	0	105	126	475	12
Grp Sat Flow(s),veh/h/ln	1721	0	0	1566	0	0	902	0	1800	1279	1856	1572
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.4	2.5	7.6	0.2
Cycle Q Clear(g_c), s	6.1	0.0	0.0	3.0	0.0	0.0	8.1	0.0	1.4	3.9	7.6	0.2
Prop In Lane	0.04		0.40	0.47		0.12	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	716	0	0	707	0	0	330	0	636	613	655	555
V/C Ratio(X)	0.52	0.00	0.00	0.31	0.00	0.00	0.05	0.00	0.17	0.21	0.72	0.02
Avail Cap(c_a), veh/h	869	0	0	825	0	0	543	0	1061	914	1093	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.1	0.0	0.0	8.1	0.0	0.0	13.1	0.0	7.5	8.9	9.5	7.2
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.1	0.2	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.8	0.0	0.0	0.1	0.0	0.3	0.4	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.7	0.0	0.0	8.3	0.0	0.0	13.1	0.0	7.7	9.0	11.1	7.2
LnGrp LOS	A	A	A	A	A	A	B	A	A	A	B	A
Approach Vol, veh/h		375			217			122			613	
Approach Delay, s/veh		9.7			8.3			8.4			10.6	
Approach LOS		A			A			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		17.0		17.0		17.0		17.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		20.0		15.0		20.0		15.0				
Max Q Clear Time (g_c+I1), s		10.1		8.1		9.6		5.0				
Green Ext Time (p_c), s		0.3		1.2		2.2		0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				9.8								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary  
28: Cicero Rd/SR 19 & 206th St



















Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Volume (veh/h)	33	245	71	31	254	125	134	455	69	86	186	16
Future Volume (veh/h)	33	245	71	31	254	125	134	455	69	86	186	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	266	77	34	276	136	146	495	75	93	202	17
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	127	422	115	118	362	169	596	679	103	321	801	679
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	90	1318	359	68	1131	526	1153	1574	239	835	1856	1572
Grp Volume(v), veh/h	379	0	0	446	0	0	146	0	570	93	202	17
Grp Sat Flow(s),veh/h/ln	1767	0	0	1726	0	0	1153	0	1813	835	1856	1572
Q Serve(g_s), s	0.0	0.0	0.0	2.1	0.0	0.0	3.7	0.0	10.5	4.2	2.8	0.3
Cycle Q Clear(g_c), s	7.3	0.0	0.0	9.4	0.0	0.0	6.5	0.0	10.5	14.7	2.8	0.3
Prop In Lane	0.09		0.20	0.08		0.30	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	664	0	0	649	0	0	596	0	782	321	801	679
V/C Ratio(X)	0.57	0.00	0.00	0.69	0.00	0.00	0.24	0.00	0.73	0.29	0.25	0.03
Avail Cap(c_a), veh/h	873	0	0	859	0	0	728	0	990	417	1013	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	0.0	12.5	0.0	0.0	9.4	0.0	9.5	15.6	7.3	6.6
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.5	0.0	0.0	0.2	0.0	2.0	0.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	3.0	0.0	0.0	0.6	0.0	2.6	0.6	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	0.0	0.0	13.9	0.0	0.0	9.6	0.0	11.5	16.1	7.5	6.6
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h		379			446			716				312
Approach Delay, s/veh		12.6			13.9			11.1				10.0
Approach LOS		B			B			B				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.4		17.9		22.4		17.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		22.0		18.0		22.0		18.0				
Max Q Clear Time (g_c+I1), s		12.5		9.3		16.7		11.4				
Green Ext Time (p_c), s		2.7		1.5		0.7		1.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				11.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
28: Cicero Rd/SR 19 & 206th St



















Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	224	234	95	140	72	16	86	19	120	737	12
Future Volume (veh/h)	14	224	234	95	140	72	16	86	19	120	737	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	15	243	254	103	152	78	17	93	21	130	801	13
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	53	287	290	141	196	86	161	584	132	685	839	711
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.03	0.40	0.40	0.08	0.45	0.45
Sat Flow, veh/h	22	852	860	249	582	254	1767	1465	331	1767	1856	1572
Grp Volume(v), veh/h	512	0	0	333	0	0	17	0	114	130	801	13
Grp Sat Flow(s),veh/h/ln	1734	0	0	1086	0	0	1767	0	1796	1767	1856	1572
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	0.0	0.5	0.0	3.3	3.3	34.0	0.4
Cycle Q Clear(g_c), s	22.7	0.0	0.0	24.9	0.0	0.0	0.5	0.0	3.3	3.3	34.0	0.4
Prop In Lane	0.03		0.50	0.31		0.23	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	629	0	0	423	0	0	161	0	716	685	839	711
V/C Ratio(X)	0.81	0.00	0.00	0.79	0.00	0.00	0.11	0.00	0.16	0.19	0.95	0.02
Avail Cap(c_a), veh/h	680	0	0	464	0	0	263	0	834	693	862	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	0.0	25.2	0.0	0.0	19.1	0.0	15.8	11.3	21.6	12.4
Incr Delay (d2), s/veh	7.1	0.0	0.0	8.1	0.0	0.0	0.3	0.0	0.1	0.1	20.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.0	0.0	6.8	0.0	0.0	0.2	0.0	1.2	1.1	16.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	0.0	33.2	0.0	0.0	19.4	0.0	15.9	11.5	41.7	12.4
LnGrp LOS	C	A	A	C	A	A	B	A	B	B	D	B
Approach Vol, veh/h		512			333			131			944	
Approach Delay, s/veh		32.7			33.2			16.3			37.1	
Approach LOS		C			C			B			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	37.6		32.5	7.2	42.0		32.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	38.0		30.0	7.0	38.0		30.0				
Max Q Clear Time (g_c+I1), s	5.3	5.3		24.7	2.5	36.0		26.9				
Green Ext Time (p_c), s	0.0	0.5		1.5	0.0	1.0		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.9								
HCM 6th LOS				C								


























HCM 6th Signalized Intersection Summary  
28: Cicero Rd/SR 19 & 206th St

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	422	76	36	403	206	264	655	74	206	198	17
Future Volume (veh/h)	33	422	76	36	403	206	264	655	74	206	198	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	459	83	39	438	224	287	712	80	224	215	18
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	51	482	85	51	387	192	585	655	74	205	686	582
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.11	0.40	0.40	0.08	0.37	0.37
Sat Flow, veh/h	55	1205	211	54	966	479	1767	1638	184	1767	1856	1572
Grp Volume(v), veh/h	578	0	0	701	0	0	287	0	792	224	215	18
Grp Sat Flow(s),veh/h/ln	1471	0	0	1499	0	0	1767	0	1822	1767	1856	1572
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	12.8	0.0	52.0	11.0	10.7	0.9
Cycle Q Clear(g_c), s	50.1	0.0	0.0	52.0	0.0	0.0	12.8	0.0	52.0	11.0	10.7	0.9
Prop In Lane	0.06		0.14	0.06		0.32	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	618	0	0	629	0	0	585	0	729	205	686	582
V/C Ratio(X)	0.94	0.00	0.00	1.11	0.00	0.00	0.49	0.00	1.09	1.09	0.31	0.03
Avail Cap(c_a), veh/h	618	0	0	629	0	0	600	0	729	205	686	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	0.0	0.0	39.0	0.0	0.0	20.7	0.0	39.0	38.8	29.2	26.1
Incr Delay (d2), s/veh	21.7	0.0	0.0	71.7	0.0	0.0	0.6	0.0	59.3	89.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.8	0.0	0.0	32.6	0.0	0.0	5.1	0.0	33.7	9.6	4.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	0.0	0.0	110.8	0.0	0.0	21.4	0.0	98.3	128.8	29.5	26.1
LnGrp LOS	E	A	A	F	A	A	C	A	F	F	C	C
Approach Vol, veh/h		578			701			1079				457
Approach Delay, s/veh		58.3			110.8			77.8				78.0
Approach LOS		E			F			E				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	57.0		57.0	19.9	53.1		57.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	11.0	52.0		52.0	16.0	47.0		52.0				
Max Q Clear Time (g_c+I1), s	13.0	54.0		52.1	14.8	12.7		54.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	1.1		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				82.0								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary  
 28: Cicero Rd/SR 19 & 206th St

Future AM Peak  
 Mitigated - Final

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	224	234	95	140	72	16	86	19	120	737	12
Future Volume (veh/h)	14	224	234	95	140	72	16	86	19	120	737	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	15	243	254	103	152	78	17	93	21	130	801	13
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	413	285	298	152	637	667	94	592	134	279	850	720
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.03	0.40	0.40	0.08	0.46	0.46
Sat Flow, veh/h	1141	831	868	893	1856	1572	3428	1465	331	3428	1856	1572
Grp Volume(v), veh/h	15	0	497	103	152	78	17	0	114	130	801	13
Grp Sat Flow(s),veh/h/ln	1141	0	1699	893	1856	1572	1714	0	1796	1714	1856	1572
Q Serve(g_s), s	0.8	0.0	22.2	5.8	4.8	2.5	0.4	0.0	3.3	3.0	33.6	0.4
Cycle Q Clear(g_c), s	5.6	0.0	22.2	28.0	4.8	2.5	0.4	0.0	3.3	3.0	33.6	0.4
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	413	0	583	152	637	667	94	0	726	279	850	720
V/C Ratio(X)	0.04	0.00	0.85	0.68	0.24	0.12	0.18	0.00	0.16	0.47	0.94	0.02
Avail Cap(c_a), veh/h	413	0	583	152	637	667	357	0	869	357	898	761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	24.9	39.0	19.2	14.2	38.8	0.0	15.5	35.8	21.1	12.1
Incr Delay (d2), s/veh	0.0	0.0	11.7	11.3	0.2	0.1	0.9	0.0	0.1	1.2	17.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	10.0	2.5	2.0	0.8	0.2	0.0	1.2	1.2	15.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.2	0.0	36.5	50.3	19.4	14.3	39.7	0.0	15.6	37.0	38.4	12.1
LnGrp LOS	C		D	D	B	B	D		B	D	D	B
Approach Vol, veh/h		512			333			131			944	
Approach Delay, s/veh		36.1			27.8			18.7			37.9	
Approach LOS		D			C			B			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	38.0		33.0	6.2	42.4		33.0				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	8.5	39.5		28.0	8.5	39.5		28.0				
Max Q Clear Time (g_c+I1), s	5.0	5.3		24.2	2.4	35.6		30.0				
Green Ext Time (p_c), s	0.1	0.5		1.1	0.0	1.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				34.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
 28: Cicero Rd/SR 19 & 206th St

Future PM Peak  
 Mitigated - Final

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	422	76	36	403	206	264	655	74	206	198	17
Future Volume (veh/h)	33	422	76	36	403	206	264	655	74	206	198	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	459	83	39	438	224	287	712	80	224	215	18
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	150	466	84	87	566	616	370	737	83	298	796	675
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.11	0.45	0.45	0.09	0.43	0.43
Sat Flow, veh/h	767	1529	277	857	1856	1572	3428	1638	184	3428	1856	1572
Grp Volume(v), veh/h	36	0	542	39	438	224	287	0	792	224	215	18
Grp Sat Flow(s),veh/h/ln	767	0	1806	857	1856	1572	1714	0	1822	1714	1856	1572
Q Serve(g_s), s	4.0	0.0	26.4	0.6	19.0	8.9	7.2	0.0	37.4	5.7	6.6	0.6
Cycle Q Clear(g_c), s	23.0	0.0	26.4	27.0	19.0	8.9	7.2	0.0	37.4	5.7	6.6	0.6
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	150	0	551	87	566	616	370	0	820	298	796	675
V/C Ratio(X)	0.24	0.00	0.98	0.45	0.77	0.36	0.78	0.00	0.97	0.75	0.27	0.03
Avail Cap(c_a), veh/h	150	0	551	87	566	616	503	0	827	341	796	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	0.0	30.6	44.2	28.0	19.1	38.5	0.0	23.7	39.5	16.3	14.6
Incr Delay (d2), s/veh	0.8	0.0	34.2	3.6	6.6	0.4	5.2	0.0	23.1	7.9	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	15.9	0.9	9.1	3.1	3.1	0.0	18.9	2.5	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.3	0.0	64.8	47.8	34.6	19.4	43.7	0.0	46.8	47.4	16.5	14.6
LnGrp LOS	D		E	D	C	B	D		D	D	B	B
Approach Vol, veh/h		578			701			1079			457	
Approach Delay, s/veh		63.2			30.5			46.0			31.6	
Approach LOS		E			C			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.7	44.8		32.0	13.5	43.0		32.0				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	8.8	40.2		27.0	13.0	36.0		27.0				
Max Q Clear Time (g_c+I1), s	7.7	39.4		28.4	9.2	8.6		29.0				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.3	1.1		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			43.3									
HCM 6th LOS			D									

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	379	0	0	175	3	0
Future Vol, veh/h	379	0	0	175	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	412	0	0	190	3	0

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	412	0	602	412
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	190	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1142	-	461	638
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	840	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1142	-	461	638
Mov Cap-2 Maneuver	-	-	-	-	461	-
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	461	-	-	1142	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Control Delay (s)	12.9	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	425	7	1	414	4	0
Future Vol, veh/h	425	7	1	414	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	462	8	1	450	4	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	470	0	918 466
Stage 1	-	-	-	-	466 -
Stage 2	-	-	-	-	452 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	1086	-	300 595
Stage 1	-	-	-	-	630 -
Stage 2	-	-	-	-	639 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1086	-	300 595
Mov Cap-2 Maneuver	-	-	-	-	300 -
Stage 1	-	-	-	-	630 -
Stage 2	-	-	-	-	638 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	300	-	-	1086	-
HCM Lane V/C Ratio	0.014	-	-	0.001	-
HCM Control Delay (s)	17.2	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	413	0	0	279	3	0
Future Vol, veh/h	413	0	0	279	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	449	0	0	303	3	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	449	0	752 449
Stage 1	-	-	-	-	449 -
Stage 2	-	-	-	-	303 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	1106	-	377 608
Stage 1	-	-	-	-	641 -
Stage 2	-	-	-	-	747 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1106	-	377 608
Mov Cap-2 Maneuver	-	-	-	-	377 -
Stage 1	-	-	-	-	641 -
Stage 2	-	-	-	-	747 -

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	377	-	-	1106	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	14.6	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	722	9	1	652	4	0
Future Vol, veh/h	722	9	1	652	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	785	10	1	709	4	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	795	0	1501
Stage 1	-	-	-	-	790
Stage 2	-	-	-	-	711
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	822	-	133
Stage 1	-	-	-	-	445
Stage 2	-	-	-	-	485
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	822	-	133
Mov Cap-2 Maneuver	-	-	-	-	133
Stage 1	-	-	-	-	445
Stage 2	-	-	-	-	484

Approach	EB	WB	NB
HCM Control Delay, s	0	0	33
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	133	-	-	822	-
HCM Lane V/C Ratio	0.033	-	-	0.001	-
HCM Control Delay (s)	33	-	-	9.4	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th Signalized Intersection Summary  
30: Cumberland Rd & 206th St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	3	137	190	8	138	17	51	36	0	21	173	5
Future Volume (veh/h)	3	137	190	8	138	17	51	36	0	21	173	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	3	149	207	9	150	18	55	39	0	23	188	5
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	407	486	532	387	443	53	487	538	0	568	453	12
Arrive On Green	0.01	0.26	0.26	0.02	0.27	0.27	0.08	0.29	0.00	0.04	0.25	0.25
Sat Flow, veh/h	1767	1856	1572	1767	1625	195	1767	1856	0	1767	1799	48
Grp Volume(v), veh/h	3	149	207	9	0	168	55	39	0	23	0	193
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1820	1767	1856	0	1767	0	1847
Q Serve(g_s), s	0.1	3.0	4.6	0.2	0.0	3.4	1.0	0.7	0.0	0.4	0.0	4.0
Cycle Q Clear(g_c), s	0.1	3.0	4.6	0.2	0.0	3.4	1.0	0.7	0.0	0.4	0.0	4.0
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.00	1.00		0.03
Lane Grp Cap(c), veh/h	407	486	532	387	0	496	487	538	0	568	0	465
V/C Ratio(X)	0.01	0.31	0.39	0.02	0.00	0.34	0.11	0.07	0.00	0.04	0.00	0.41
Avail Cap(c_a), veh/h	667	486	533	628	0	496	622	648	0	769	0	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.4	13.6	11.5	12.1	0.0	13.4	10.8	11.8	0.0	11.7	0.0	14.3
Incr Delay (d2), s/veh	0.0	0.4	0.5	0.0	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	1.3	0.1	0.0	1.2	0.3	0.2	0.0	0.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	13.9	12.0	12.1	0.0	13.8	10.9	11.8	0.0	11.7	0.0	14.9
LnGrp LOS	B	B	B	B	A	B	B	B	A	B	A	B
Approach Vol, veh/h		359			177			94			216	
Approach Delay, s/veh		12.8			13.7			11.3			14.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	18.3	4.8	17.0	7.5	16.5	4.3	17.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	16.0	7.0	12.0	7.0	16.0	7.0	12.0				
Max Q Clear Time (g_c+I1), s	2.4	2.7	2.2	6.6	3.0	6.0	2.1	5.4				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.7	0.0	0.6	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B



HCM 6th Signalized Intersection Summary  
30: Cumberland Rd & 206th St

Existing PM Peak  
12/11/2023

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	246	154	4	203	52	210	231	26	20	81	7
Future Volume (veh/h)	16	246	154	4	203	52	210	231	26	20	81	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	17	267	167	4	221	57	228	251	28	22	88	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	304	485	621	287	340	88	633	550	61	444	400	36
Arrive On Green	0.03	0.26	0.26	0.01	0.24	0.24	0.13	0.34	0.34	0.04	0.24	0.24
Sat Flow, veh/h	1767	1856	1572	1767	1423	367	1767	1640	183	1767	1676	152
Grp Volume(v), veh/h	17	267	167	4	0	278	228	0	279	22	0	96
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1789	1767	0	1823	1767	0	1828
Q Serve(g_s), s	0.4	6.2	3.6	0.1	0.0	7.0	4.4	0.0	6.0	0.5	0.0	2.1
Cycle Q Clear(g_c), s	0.4	6.2	3.6	0.1	0.0	7.0	4.4	0.0	6.0	0.5	0.0	2.1
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.10	1.00		0.08
Lane Grp Cap(c), veh/h	304	485	621	287	0	428	633	0	611	444	0	436
V/C Ratio(X)	0.06	0.55	0.27	0.01	0.00	0.65	0.36	0.00	0.46	0.05	0.00	0.22
Avail Cap(c_a), veh/h	499	518	649	520	0	500	679	0	611	625	0	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	16.0	10.3	14.5	0.0	17.2	10.2	0.0	13.1	13.3	0.0	15.3
Incr Delay (d2), s/veh	0.1	1.1	0.2	0.0	0.0	2.3	0.3	0.0	0.5	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.3	1.0	0.0	0.0	2.7	1.3	0.0	2.0	0.1	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	17.1	10.5	14.5	0.0	19.5	10.5	0.0	13.6	13.4	0.0	15.6
LnGrp LOS	B	B	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		451			282			507			118	
Approach Delay, s/veh		14.5			19.4			12.2			15.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	21.8	4.4	18.1	10.7	17.0	5.5	17.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	14.0	7.0	14.0	8.0	13.0	7.0	14.0				
Max Q Clear Time (g_c+I1), s	2.5	8.0	2.1	8.2	6.4	4.1	2.4	9.0				
Green Ext Time (p_c), s	0.0	0.7	0.0	1.0	0.1	0.2	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B























HCM 6th Signalized Intersection Summary  
30: Cumberland Rd & 206th St

Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	176	279	8	151	19	162	51	0	21	263	9
Future Volume (veh/h)	5	176	279	8	151	19	162	51	0	21	263	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	191	303	9	164	21	176	55	0	23	286	10
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	361	453	588	317	405	52	229	620	0	540	433	15
Arrive On Green	0.01	0.24	0.24	0.02	0.25	0.25	0.13	0.33	0.00	0.04	0.24	0.24
Sat Flow, veh/h	1767	1856	1572	1767	1612	206	1767	1856	0	1767	1782	62
Grp Volume(v), veh/h	5	191	303	9	0	185	176	55	0	23	0	296
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1818	1767	1856	0	1767	0	1844
Q Serve(g_s), s	0.1	4.3	7.3	0.2	0.0	4.2	4.7	1.0	0.0	0.5	0.0	7.1
Cycle Q Clear(g_c), s	0.1	4.3	7.3	0.2	0.0	4.2	4.7	1.0	0.0	0.5	0.0	7.1
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.00	1.00		0.03
Lane Grp Cap(c), veh/h	361	453	588	317	0	457	229	620	0	540	0	448
V/C Ratio(X)	0.01	0.42	0.52	0.03	0.00	0.40	0.77	0.09	0.00	0.04	0.00	0.66
Avail Cap(c_a), veh/h	597	453	588	540	0	457	324	620	0	724	0	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	15.6	11.9	13.7	0.0	15.3	20.7	11.2	0.0	12.8	0.0	16.8
Incr Delay (d2), s/veh	0.0	0.6	0.8	0.0	0.0	0.6	6.9	0.1	0.0	0.0	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.6	2.1	0.1	0.0	1.5	2.1	0.3	0.0	0.1	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	16.2	12.7	13.7	0.0	15.9	27.6	11.3	0.0	12.9	0.0	19.2
LnGrp LOS	B	B	B	B	A	B	C	B	A	B	A	B
Approach Vol, veh/h		499			194			231			319	
Approach Delay, s/veh		14.1			15.8			23.7			18.7	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	21.4	4.8	17.0	10.4	16.9	4.5	17.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	16.0	7.0	12.0	9.0	14.0	7.0	12.0				
Max Q Clear Time (g_c+I1), s	2.5	3.0	2.2	9.3	6.7	9.1	2.1	6.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.6	0.1	0.6	0.0	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				17.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
30: Cumberland Rd & 206th St

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	275	483	5	227	52	532	342	26	20	120	13
Future Volume (veh/h)	26	275	483	5	227	52	532	342	26	20	120	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	28	299	525	5	247	57	578	372	28	22	130	14
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	202	417	907	166	281	65	622	823	62	322	273	29
Arrive On Green	0.04	0.22	0.22	0.01	0.19	0.19	0.35	0.48	0.48	0.03	0.17	0.17
Sat Flow, veh/h	1767	1856	1572	1767	1458	337	1767	1704	128	1767	1646	177
Grp Volume(v), veh/h	28	299	525	5	0	304	578	0	400	22	0	144
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1795	1767	0	1832	1767	0	1824
Q Serve(g_s), s	0.9	10.8	15.4	0.2	0.0	11.9	22.8	0.0	10.5	0.7	0.0	5.2
Cycle Q Clear(g_c), s	0.9	10.8	15.4	0.2	0.0	11.9	22.8	0.0	10.5	0.7	0.0	5.2
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.07	1.00		0.10
Lane Grp Cap(c), veh/h	202	417	907	166	0	345	622	0	885	322	0	302
V/C Ratio(X)	0.14	0.72	0.58	0.03	0.00	0.88	0.93	0.00	0.45	0.07	0.00	0.48
Avail Cap(c_a), veh/h	300	417	907	320	0	347	683	0	885	432	0	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.4	26.0	9.7	23.7	0.0	28.5	22.6	0.0	12.4	23.5	0.0	27.4
Incr Delay (d2), s/veh	0.3	5.8	0.9	0.1	0.0	22.0	18.3	0.0	0.4	0.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.0	4.3	0.1	0.0	6.8	11.5	0.0	3.7	0.3	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	31.8	10.7	23.7	0.0	50.4	40.9	0.0	12.8	23.6	0.0	28.6
LnGrp LOS	C	C	B	C	A	D	D	A	B	C	A	C
Approach Vol, veh/h		852			309			978				166
Approach Delay, s/veh		18.5			50.0			29.4				27.9
Approach LOS		B			D			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	40.0	4.7	21.3	29.5	17.0	7.0	18.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	34.0	7.0	14.0	28.0	13.0	7.0	14.0				
Max Q Clear Time (g_c+I1), s	2.7	12.5	2.2	17.4	24.8	7.2	2.9	13.9				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.0	0.7	0.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			28.0									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	161	6	0	163	5	0	1	0	12	1	19
Future Vol, veh/h	0	161	6	0	163	5	0	1	0	12	1	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	175	7	0	177	5	0	1	0	13	1	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	182	0	0	182	0	0	370	361	179	359	362	180
Stage 1	-	-	-	-	-	-	179	179	-	180	180	-
Stage 2	-	-	-	-	-	-	191	182	-	179	182	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1387	-	-	1387	-	-	585	565	861	595	564	860
Stage 1	-	-	-	-	-	-	820	749	-	819	749	-
Stage 2	-	-	-	-	-	-	808	747	-	820	747	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1387	-	-	1387	-	-	570	565	861	594	564	860
Mov Cap-2 Maneuver	-	-	-	-	-	-	570	565	-	594	564	-
Stage 1	-	-	-	-	-	-	820	749	-	819	749	-
Stage 2	-	-	-	-	-	-	787	747	-	819	747	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			11.4			10.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	565	1387	-	-	1387	-	-	726
HCM Lane V/C Ratio	0.002	-	-	-	-	-	-	0.048
HCM Control Delay (s)	11.4	0	-	-	0	-	-	10.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	244	2	0	241	12	0	4	0	10	1	4
Future Vol, veh/h	29	244	2	0	241	12	0	4	0	10	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	265	2	0	262	13	0	4	0	11	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	275	0	0	267	0	0	601	605	266	601	600	269
Stage 1	-	-	-	-	-	-	330	330	-	269	269	-
Stage 2	-	-	-	-	-	-	271	275	-	332	331	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1282	-	-	1291	-	-	411	411	770	411	413	767
Stage 1	-	-	-	-	-	-	681	644	-	734	685	-
Stage 2	-	-	-	-	-	-	733	681	-	679	643	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1282	-	-	1291	-	-	399	399	770	399	401	767
Mov Cap-2 Maneuver	-	-	-	-	-	-	399	399	-	399	401	-
Stage 1	-	-	-	-	-	-	661	625	-	713	685	-
Stage 2	-	-	-	-	-	-	728	681	-	655	624	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0			14.1			13.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	399	1282	-	-	1291	-	-	458
HCM Lane V/C Ratio	0.011	0.025	-	-	-	-	-	0.036
HCM Control Delay (s)	14.1	7.9	0	-	0	-	-	13.2
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	197	6	0	176	10	0	3	0	37	1	19
Future Vol, veh/h	2	197	6	0	176	10	0	3	0	37	1	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	214	7	0	191	11	0	3	0	40	1	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	202	0	0	221	0	0	430	424	218	420	422	197
Stage 1	-	-	-	-	-	-	222	222	-	197	197	-
Stage 2	-	-	-	-	-	-	208	202	-	223	225	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1364	-	-	1342	-	-	534	520	819	542	522	842
Stage 1	-	-	-	-	-	-	778	718	-	803	736	-
Stage 2	-	-	-	-	-	-	792	732	-	777	716	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1364	-	-	1342	-	-	519	519	819	539	521	842
Mov Cap-2 Maneuver	-	-	-	-	-	-	519	519	-	539	521	-
Stage 1	-	-	-	-	-	-	776	717	-	801	736	-
Stage 2	-	-	-	-	-	-	771	732	-	772	715	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0			12			11.5		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	519	1364	-	-	1342	-	-	612
HCM Lane V/C Ratio	0.006	0.002	-	-	-	-	-	0.101
HCM Control Delay (s)	12	7.6	0	-	0	-	-	11.5
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	33	268	2	0	263	34	0	4	0	29	1	6
Future Vol, veh/h	33	268	2	0	263	34	0	4	0	29	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	36	291	2	0	286	37	0	4	0	32	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	323	0	0	293	0	0	673	687	292	671	670	305
Stage 1	-	-	-	-	-	-	364	364	-	305	305	-
Stage 2	-	-	-	-	-	-	309	323	-	366	365	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1231	-	-	1263	-	-	368	368	745	369	377	732
Stage 1	-	-	-	-	-	-	653	622	-	702	660	-
Stage 2	-	-	-	-	-	-	699	649	-	651	622	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1231	-	-	1263	-	-	354	355	745	356	364	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	354	355	-	356	364	-
Stage 1	-	-	-	-	-	-	630	600	-	677	660	-
Stage 2	-	-	-	-	-	-	692	649	-	624	600	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0			15.3			15.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	355	1231	-	-	1263	-	-	390
HCM Lane V/C Ratio	0.012	0.029	-	-	-	-	-	0.1
HCM Control Delay (s)	15.3	8	0	-	0	-	-	15.3
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	195	4	11	161	33	0	2	4	37	6	15
Future Vol, veh/h	11	195	4	11	161	33	0	2	4	37	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	212	4	12	175	36	0	2	4	40	7	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	211	0	0	216	0	0	467	473	214	458	457	193
Stage 1	-	-	-	-	-	-	238	238	-	217	217	-
Stage 2	-	-	-	-	-	-	229	235	-	241	240	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1354	-	-	1348	-	-	504	488	823	511	498	846
Stage 1	-	-	-	-	-	-	763	706	-	783	721	-
Stage 2	-	-	-	-	-	-	772	709	-	760	705	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1354	-	-	1348	-	-	482	478	823	499	488	846
Mov Cap-2 Maneuver	-	-	-	-	-	-	482	478	-	499	488	-
Stage 1	-	-	-	-	-	-	755	699	-	775	714	-
Stage 2	-	-	-	-	-	-	743	702	-	746	698	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.4			10.5			12.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	663	1354	-	-	1348	-	-	557
HCM Lane V/C Ratio	0.01	0.009	-	-	0.009	-	-	0.113
HCM Control Delay (s)	10.5	7.7	0	-	7.7	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4



Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	235	0	7	204	37	3	12	12	48	6	5
Future Vol, veh/h	14	235	0	7	204	37	3	12	12	48	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	255	0	8	222	40	3	13	13	52	7	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	262	0	0	255	0	0	549	563	255	556	543	242
Stage 1	-	-	-	-	-	-	285	285	-	258	258	-
Stage 2	-	-	-	-	-	-	264	278	-	298	285	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1296	-	-	1304	-	-	445	434	781	440	445	794
Stage 1	-	-	-	-	-	-	720	674	-	744	692	-
Stage 2	-	-	-	-	-	-	739	679	-	709	674	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1296	-	-	1304	-	-	430	425	781	416	436	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	430	425	-	416	436	-
Stage 1	-	-	-	-	-	-	711	665	-	734	687	-
Stage 2	-	-	-	-	-	-	722	674	-	675	665	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.2			12.1			14.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	534	1296	-	-	1304	-	-	436
HCM Lane V/C Ratio	0.055	0.012	-	-	0.006	-	-	0.147
HCM Control Delay (s)	12.1	7.8	0	-	7.8	0	-	14.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.5

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	317	4	11	189	50	0	2	4	80	7	16
Future Vol, veh/h	13	317	4	11	189	50	0	2	4	80	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	14	345	4	12	205	54	0	2	4	87	8	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	259	0	0	349	0	0	644	658	347	634	633	232
Stage 1	-	-	-	-	-	-	375	375	-	256	256	-
Stage 2	-	-	-	-	-	-	269	283	-	378	377	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1300	-	-	1204	-	-	384	383	694	390	396	805
Stage 1	-	-	-	-	-	-	644	615	-	746	694	-
Stage 2	-	-	-	-	-	-	734	675	-	642	614	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1300	-	-	1204	-	-	363	373	694	379	386	805
Mov Cap-2 Maneuver	-	-	-	-	-	-	363	373	-	379	386	-
Stage 1	-	-	-	-	-	-	636	607	-	736	686	-
Stage 2	-	-	-	-	-	-	702	667	-	627	606	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.4			11.8			16.9		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	539	1300	-	-	1204	-	-	414
HCM Lane V/C Ratio	0.012	0.011	-	-	0.01	-	-	0.27
HCM Control Delay (s)	11.8	7.8	0	-	8	0	-	16.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	1.1

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	317	0	7	314	81	3	14	12	69	8	5
Future Vol, veh/h	14	317	0	7	314	81	3	14	12	69	8	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	345	0	8	341	88	3	15	13	75	9	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	429	0	0	345	0	0	783	820	345	790	776	385
Stage 1	-	-	-	-	-	-	375	375	-	401	401	-
Stage 2	-	-	-	-	-	-	408	445	-	389	375	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1125	-	-	1208	-	-	310	309	696	307	327	660
Stage 1	-	-	-	-	-	-	644	615	-	624	599	-
Stage 2	-	-	-	-	-	-	618	573	-	633	615	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1125	-	-	1208	-	-	295	301	696	284	319	660
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	301	-	284	319	-
Stage 1	-	-	-	-	-	-	634	605	-	614	594	-
Stage 2	-	-	-	-	-	-	599	568	-	596	605	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			15			22.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	392	1125	-	-	1208	-	-	298
HCM Lane V/C Ratio	0.08	0.014	-	-	0.006	-	-	0.299
HCM Control Delay (s)	15	8.2	0	-	8	0	-	22.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	1.2

HCM 6th Signalized Intersection Summary  
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Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (veh/h)	54	37	139	63	42	10	74	184	3	0	602	71
Future Volume (veh/h)	54	37	139	63	42	10	74	184	3	0	602	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	59	40	151	68	46	11	80	200	3	0	654	77
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	166	103	257	318	192	37	288	923	14	162	825	97
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.51	0.51	0.51	0.00	0.51	0.51
Sat Flow, veh/h	246	383	959	717	718	138	719	1823	27	1170	1629	192
Grp Volume(v), veh/h	250	0	0	125	0	0	80	0	203	0	0	731
Grp Sat Flow(s),veh/h/ln	1587	0	0	1573	0	0	719	0	1851	1170	0	1821
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	2.7	0.0	0.0	14.7
Cycle Q Clear(g_c), s	5.9	0.0	0.0	2.4	0.0	0.0	19.2	0.0	2.7	0.0	0.0	14.7
Prop In Lane	0.24		0.60	0.54		0.09	1.00		0.01	1.00		0.11
Lane Grp Cap(c), veh/h	526	0	0	547	0	0	288	0	937	162	0	922
V/C Ratio(X)	0.48	0.00	0.00	0.23	0.00	0.00	0.28	0.00	0.22	0.00	0.00	0.79
Avail Cap(c_a), veh/h	530	0	0	551	0	0	460	0	1378	441	0	1356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	0.0	0.0	12.7	0.0	0.0	17.0	0.0	6.1	0.0	0.0	9.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.2	0.0	0.0	0.5	0.0	0.1	0.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	0.8	0.0	0.0	0.6	0.0	0.6	0.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	0.0	0.0	13.0	0.0	0.0	17.5	0.0	6.2	0.0	0.0	11.1
LnGrp LOS	B	A	A	B	A	A	B	A	A	A	A	B
Approach Vol, veh/h		250			125			283				731
Approach Delay, s/veh		14.6			13.0			9.4				11.1
Approach LOS		B			B			A				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.4		16.9		27.4		16.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		33.0		12.0		33.0		12.0				
Max Q Clear Time (g_c+I1), s		21.2		7.9		16.7		4.4				
Green Ext Time (p_c), s		1.2		0.5		4.3		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				11.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
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Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (veh/h)	99	81	132	39	47	0	209	685	44	4	355	43
Future Volume (veh/h)	99	81	132	39	47	0	209	685	44	4	355	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	108	88	143	42	51	0	227	745	48	4	386	47
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	209	133	174	251	262	0	509	897	58	263	844	103
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.00	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	403	511	667	525	1005	0	948	1724	111	679	1622	198
Grp Volume(v), veh/h	339	0	0	93	0	0	227	0	793	4	0	433
Grp Sat Flow(s),veh/h/ln	1581	0	0	1530	0	0	948	0	1836	679	0	1820
Q Serve(g_s), s	7.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	16.7	0.2	0.0	6.9
Cycle Q Clear(g_c), s	9.2	0.0	0.0	1.8	0.0	0.0	15.9	0.0	16.7	16.9	0.0	6.9
Prop In Lane	0.32		0.42	0.45		0.00	1.00		0.06	1.00		0.11
Lane Grp Cap(c), veh/h	517	0	0	514	0	0	509	0	955	263	0	947
V/C Ratio(X)	0.66	0.00	0.00	0.18	0.00	0.00	0.45	0.00	0.83	0.02	0.00	0.46
Avail Cap(c_a), veh/h	586	0	0	579	0	0	657	0	1243	369	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	0.0	13.2	0.0	0.0	11.9	0.0	9.3	16.4	0.0	6.9
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.2	0.0	0.0	0.6	0.0	3.8	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	0.6	0.0	0.0	1.4	0.0	4.5	0.0	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	0.0	13.3	0.0	0.0	12.5	0.0	13.1	16.4	0.0	7.3
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		339			93			1020				437
Approach Delay, s/veh		18.0			13.3			12.9				7.3
Approach LOS		B			B			B				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.8		17.0		28.8		17.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		31.0		14.0		31.0		14.0				
Max Q Clear Time (g_c+I1), s		18.7		11.2		18.9		3.8				
Green Ext Time (p_c), s		5.1		0.5		1.9		0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.6								
HCM 6th LOS				B								

















HCM 6th Signalized Intersection Summary  
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Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	41	294	97	45	10	110	239	7	0	854	77
Future Volume (veh/h)	60	41	294	97	45	10	110	239	7	0	854	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	65	45	320	105	49	11	120	260	8	0	928	84
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	91	57	321	141	58	10	112	1172	36	65	914	83
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.06	0.65	0.65	0.00	0.55	0.55
Sat Flow, veh/h	208	225	1261	342	229	41	1767	1791	55	1102	1676	152
Grp Volume(v), veh/h	430	0	0	165	0	0	120	0	268	0	0	1012
Grp Sat Flow(s),veh/h/ln	1695	0	0	612	0	0	1767	0	1846	1102	0	1828
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	7.0	0.0	6.5	0.0	0.0	60.0
Cycle Q Clear(g_c), s	27.9	0.0	0.0	28.0	0.0	0.0	7.0	0.0	6.5	0.0	0.0	60.0
Prop In Lane	0.15		0.74	0.64		0.07	1.00		0.03	1.00		0.08
Lane Grp Cap(c), veh/h	469	0	0	209	0	0	112	0	1208	65	0	997
V/C Ratio(X)	0.92	0.00	0.00	0.79	0.00	0.00	1.07	0.00	0.22	0.00	0.00	1.01
Avail Cap(c_a), veh/h	469	0	0	209	0	0	112	0	1208	65	0	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	41.1	0.0	0.0	40.8	0.0	0.0	51.5	0.0	7.7	0.0	0.0	25.0
Incr Delay (d2), s/veh	22.8	0.0	0.0	17.9	0.0	0.0	104.1	0.0	0.1	0.0	0.0	32.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.0	0.0	0.0	5.4	0.0	0.0	6.3	0.0	2.2	0.0	0.0	31.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	0.0	0.0	58.7	0.0	0.0	155.6	0.0	7.8	0.0	0.0	57.2
LnGrp LOS	E	A	A	E	A	A	F	A	A	A	A	F
Approach Vol, veh/h		430			165			388				1012
Approach Delay, s/veh		63.9			58.7			53.5				57.2
Approach LOS		E			E			D				E
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		77.0		33.0	12.0	65.0		33.0				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		72.0		28.0	7.0	60.0		28.0				
Max Q Clear Time (g_c+I1), s		8.5		29.9	9.0	62.0		30.0				
Green Ext Time (p_c), s		1.5		0.0	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				58.1								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary  
33: SR 37 & 206th St

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	88	218	51	54	2	343	934	72	5	460	56
Future Volume (veh/h)	109	88	218	51	54	2	343	934	72	5	460	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	118	96	237	55	59	2	373	1015	78	5	500	61
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	153	105	228	165	158	5	398	1050	81	107	544	66
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.23	0.62	0.62	0.34	0.34	0.34
Sat Flow, veh/h	375	388	845	390	586	17	1767	1701	131	512	1622	198
Grp Volume(v), veh/h	451	0	0	116	0	0	373	0	1093	5	0	561
Grp Sat Flow(s),veh/h/ln	1608	0	0	993	0	0	1767	0	1832	512	0	1820
Q Serve(g_s), s	17.1	0.0	0.0	0.0	0.0	0.0	18.4	0.0	50.3	0.8	0.0	26.3
Cycle Q Clear(g_c), s	24.0	0.0	0.0	6.9	0.0	0.0	18.4	0.0	50.3	26.1	0.0	26.3
Prop In Lane	0.26		0.53	0.47		0.02	1.00		0.07	1.00		0.11
Lane Grp Cap(c), veh/h	486	0	0	328	0	0	398	0	1130	107	0	610
V/C Ratio(X)	0.93	0.00	0.00	0.35	0.00	0.00	0.94	0.00	0.97	0.05	0.00	0.92
Avail Cap(c_a), veh/h	486	0	0	328	0	0	398	0	1156	114	0	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	0.0	0.0	25.7	0.0	0.0	33.8	0.0	16.1	40.4	0.0	28.3
Incr Delay (d2), s/veh	24.3	0.0	0.0	0.6	0.0	0.0	29.6	0.0	18.8	0.2	0.0	18.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	0.0	0.0	1.9	0.0	0.0	10.6	0.0	21.8	0.1	0.0	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	0.0	0.0	26.3	0.0	0.0	63.4	0.0	35.0	40.6	0.0	46.6
LnGrp LOS	E	A	A	C	A	A	E	A	C	D	A	D
Approach Vol, veh/h		451			116			1466				566
Approach Delay, s/veh		56.8			26.3			42.2				46.5
Approach LOS		E			C			D				D
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.8		29.0	25.0	34.8		29.0				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		56.0		24.0	20.0	31.0		24.0				
Max Q Clear Time (g_c+I1), s		52.3		26.0	20.4	28.3		8.9				
Green Ext Time (p_c), s		2.5		0.0	0.0	0.9		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				45.0								
HCM 6th LOS				D								

Intersection						
Int Delay, s/veh	2					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	0	123	166	13	137	684
Future Vol, veh/h	0	123	166	13	137	684
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	-	-	135	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	134	180	14	149	743

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1221	180	0	0	194	0
Stage 1	180	-	-	-	-	-
Stage 2	1041	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	198	860	-	-	1373	-
Stage 1	849	-	-	-	-	-
Stage 2	339	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	176	860	-	-	1373	-
Mov Cap-2 Maneuver	176	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	302	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	10	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NERNWLn1	SWL	SWT
Capacity (veh/h)	-	-	860	1373
HCM Lane V/C Ratio	-	-	0.155	0.108
HCM Control Delay (s)	-	-	10	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4



Intersection						
Int Delay, s/veh	4.7					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	1	177	807	16	169	308
Future Vol, veh/h	1	177	807	16	169	308
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	-	-	135	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	192	877	17	184	335

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1580	877	0	0	894	0
Stage 1	877	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	119	346	-	-	755	-
Stage 1	405	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	90	346	-	-	755	-
Mov Cap-2 Maneuver	90	-	-	-	-	-
Stage 1	405	-	-	-	-	-
Stage 2	370	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	28.5	0	4
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NERNWLn1	SWL	SWT
Capacity (veh/h)	-	-	341	755
HCM Lane V/C Ratio	-	-	0.567	0.243
HCM Control Delay (s)	-	-	28.5	11.3
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q(veh)	-	-	3.3	1

Intersection						
Int Delay, s/veh	33.1					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	40	199	187	24	421	841
Future Vol, veh/h	40	199	187	24	421	841
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	-	-	135	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	43	216	203	26	458	914

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2033	203	0	0	229
Stage 1	203	-	-	-	-
Stage 2	1830	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	62	835	-	-	1333
Stage 1	829	-	-	-	-
Stage 2	139	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 41	835	-	-	1333
Mov Cap-2 Maneuver	~ 41	-	-	-	-
Stage 1	829	-	-	-	-
Stage 2	91	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	221.4	0	3
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NERNWLn1	SWL	SWT
Capacity (veh/h)	-	-	197	1333
HCM Lane V/C Ratio	-	-	1.319	0.343
HCM Control Delay (s)	-	-	221.4	9.1
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	14.5	1.5

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	169					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↘		↑	↗	↘	↑
Traffic Vol, veh/h	19	442	953	62	328	352
Future Vol, veh/h	19	442	953	62	328	352
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	-	-	135	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	480	1036	67	357	383

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2133	1036	0	0	1103
Stage 1	1036	-	-	-	-
Stage 2	1097	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	54	~ 280	-	-	629
Stage 1	341	-	-	-	-
Stage 2	318	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	23	~ 280	-	-	629
Mov Cap-2 Maneuver	23	-	-	-	-
Stage 1	341	-	-	-	-
Stage 2	137	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s\$	777.4	0	8.7
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	192	629	-
HCM Lane V/C Ratio	-	-	2.61	0.567	-
HCM Control Delay (s)	-	-	\$ 777.4	17.9	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	43	3.6	-

Notes			
-:	Volume exceeds capacity	\$:	Delay exceeds 300s
+:	Computation Not Defined	*:	All major volume in platoon

Intersection					
Intersection Delay, s/veh	8.8				
Intersection LOS	A				
Approach	NW	NE		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	259	229		1372	
Demand Flow Rate, veh/h	266	236		1413	
Vehicles Circulating, veh/h	209	472		44	
Vehicles Exiting, veh/h	499	985		431	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	5.5	6.1		9.9	
Approach LOS	A	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	R	L	TR
Assumed Moves	LR	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.886	0.114	0.334	0.666
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	266	209	27	472	941
Cap Entry Lane, veh/h	1115	924	924	1364	1364
Entry HV Adj Factor	0.974	0.971	0.963	0.970	0.971
Flow Entry, veh/h	259	203	26	458	914
Cap Entry, veh/h	1086	897	890	1324	1325
V/C Ratio	0.239	0.226	0.029	0.346	0.690
Control Delay, s/veh	5.5	6.3	4.3	5.9	12.0
LOS	A	A	A	A	B
95th %tile Queue, veh	1	1	0	2	6

Intersection					
Intersection Delay, s/veh 52.1					
Intersection LOS F					
Approach	NW	NE		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	501	1103		740	
Demand Flow Rate, veh/h	516	1136		762	
Vehicles Circulating, veh/h	1067	368		22	
Vehicles Exiting, veh/h	437	416		1561	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	105.6	59.4		5.0	
Approach LOS	F	F		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	R	L	TR
Assumed Moves	LR	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.939	0.061	0.483	0.517
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	516	1067	69	368	394
Cap Entry Lane, veh/h	465	1016	1016	1392	1392
Entry HV Adj Factor	0.971	0.971	0.971	0.970	0.971
Flow Entry, veh/h	501	1036	67	357	383
Cap Entry, veh/h	451	986	986	1350	1351
V/C Ratio	1.110	1.050	0.068	0.264	0.283
Control Delay, s/veh	105.6	63.0	4.3	4.9	5.1
LOS	F	F	A	A	A
95th %tile Queue, veh	17	23	0	1	1

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	10	0	0	5	11
Future Vol, veh/h	0	10	0	0	5	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	11	0	0	5	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1	0	-	0	12
Stage 1	-	-	-	-	1
Stage 2	-	-	-	-	11
Critical Hdwy	4.13	-	-	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	2.227	-	-	-	3.527
Pot Cap-1 Maneuver	1615	-	-	-	1005
Stage 1	-	-	-	-	1020
Stage 2	-	-	-	-	1009
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1615	-	-	-	1005
Mov Cap-2 Maneuver	-	-	-	-	1005
Stage 1	-	-	-	-	1020
Stage 2	-	-	-	-	1009

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1615	-	-	-	1056
HCM Lane V/C Ratio	-	-	-	-	0.016
HCM Control Delay (s)	0	-	-	-	8.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	14	13	11	0	0	7
Future Vol, veh/h	14	13	11	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	15	14	12	0	0	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	12	0	-	0	56 12
Stage 1	-	-	-	-	12 -
Stage 2	-	-	-	-	44 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1600	-	-	-	949 1066
Stage 1	-	-	-	-	1008 -
Stage 2	-	-	-	-	976 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1600	-	-	-	940 1066
Mov Cap-2 Maneuver	-	-	-	-	940 -
Stage 1	-	-	-	-	999 -
Stage 2	-	-	-	-	976 -

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1600	-	-	-	1066
HCM Lane V/C Ratio	0.01	-	-	-	0.007
HCM Control Delay (s)	7.3	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	3	10	2	0	5	11
Future Vol, veh/h	3	10	2	0	5	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	11	2	0	5	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	2	0	-	0	19
Stage 1	-	-	-	-	2
Stage 2	-	-	-	-	17
Critical Hdwy	4.13	-	-	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	2.227	-	-	-	3.527
Pot Cap-1 Maneuver	1614	-	-	-	996
Stage 1	-	-	-	-	1019
Stage 2	-	-	-	-	1003
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1614	-	-	-	994
Mov Cap-2 Maneuver	-	-	-	-	994
Stage 1	-	-	-	-	1017
Stage 2	-	-	-	-	1003

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1614	-	-	-	1051
HCM Lane V/C Ratio	0.002	-	-	-	0.017
HCM Control Delay (s)	7.2	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	17	15	11	0	0	7
Future Vol, veh/h	17	15	11	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	18	16	12	0	0	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	12	0	-	0	64 12
Stage 1	-	-	-	-	12 -
Stage 2	-	-	-	-	52 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1600	-	-	-	939 1066
Stage 1	-	-	-	-	1008 -
Stage 2	-	-	-	-	968 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1600	-	-	-	929 1066
Mov Cap-2 Maneuver	-	-	-	-	929 -
Stage 1	-	-	-	-	997 -
Stage 2	-	-	-	-	968 -

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1600	-	-	-	1066
HCM Lane V/C Ratio	0.012	-	-	-	0.007
HCM Control Delay (s)	7.3	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	120	6	0	344	0	0	0	12	15	0	0
Future Vol, veh/h	0	120	6	0	344	0	0	0	12	15	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	130	7	0	374	0	0	0	13	16	0	0

Major/Minor	Major1		Major2		Minor2			Minor1				
Conflicting Flow All	374	0	0	137	0	0	508	511	374	515	508	134
Stage 1	-	-	-	-	-	-	374	374	-	134	134	-
Stage 2	-	-	-	-	-	-	134	137	-	381	374	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1179	-	-	1441	-	-	474	465	670	469	466	912
Stage 1	-	-	-	-	-	-	645	616	-	867	784	-
Stage 2	-	-	-	-	-	-	867	781	-	639	616	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1179	-	-	1441	-	-	474	465	670	460	466	912
Mov Cap-2 Maneuver	-	-	-	-	-	-	474	465	-	460	466	-
Stage 1	-	-	-	-	-	-	645	616	-	867	784	-
Stage 2	-	-	-	-	-	-	867	781	-	627	616	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	0	0	10.5	13.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NBL	NBT	NBR	SBL	SBT	SBRSWLn1
Capacity (veh/h)	670	1179	-	-	1441	-	460
HCM Lane V/C Ratio	0.019	-	-	-	-	-	0.035
HCM Control Delay (s)	10.5	0	-	-	0	-	13.1
HCM Lane LOS	B	A	-	-	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	0.1

Intersection												
Int Delay, s/veh	0.6											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	489	31	0	226	0	0	0	7	16	0	0
Future Vol, veh/h	13	489	31	0	226	0	0	0	7	16	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	14	532	34	0	246	0	0	0	8	17	0	0

Major/Minor	Major1			Major2			Minor2			Minor1		
Conflicting Flow All	246	0	0	566	0	0	823	840	246	827	823	549
Stage 1	-	-	-	-	-	-	246	246	-	577	577	-
Stage 2	-	-	-	-	-	-	577	594	-	250	246	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1314	-	-	1001	-	-	291	300	790	290	307	534
Stage 1	-	-	-	-	-	-	756	701	-	500	500	-
Stage 2	-	-	-	-	-	-	500	491	-	752	701	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1314	-	-	1001	-	-	288	295	790	284	302	534
Mov Cap-2 Maneuver	-	-	-	-	-	-	288	295	-	284	302	-
Stage 1	-	-	-	-	-	-	744	701	-	492	492	-
Stage 2	-	-	-	-	-	-	492	483	-	745	701	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	0.2	0	9.6	18.5
HCM LOS			A	C

Minor Lane/Major Mvmt	NELn1	NBL	NBT	NBR	SBL	SBT	SBRSWLn1
Capacity (veh/h)	790	1314	-	-	1001	-	284
HCM Lane V/C Ratio	0.01	0.011	-	-	-	-	0.061
HCM Control Delay (s)	9.6	7.8	0	-	0	-	18.5
HCM Lane LOS	A	A	A	-	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	0.2

Intersection												
Int Delay, s/veh	1.6											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	260	9	0	585	0	0	0	66	17	0	0
Future Vol, veh/h	13	260	9	0	585	0	0	0	66	17	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	14	283	10	0	636	0	0	0	72	18	0	0

Major/Minor	Major1		Major2		Minor2		Minor1					
Conflicting Flow All	636	0	0	293	0	0	952	957	636	988	952	288
Stage 1	-	-	-	-	-	-	636	636	-	316	316	-
Stage 2	-	-	-	-	-	-	316	321	-	672	636	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	943	-	-	1263	-	-	238	257	476	225	258	749
Stage 1	-	-	-	-	-	-	464	470	-	693	653	-
Stage 2	-	-	-	-	-	-	693	650	-	444	470	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	943	-	-	1263	-	-	235	252	476	189	253	749
Mov Cap-2 Maneuver	-	-	-	-	-	-	235	252	-	189	253	-
Stage 1	-	-	-	-	-	-	456	470	-	681	641	-
Stage 2	-	-	-	-	-	-	681	638	-	377	470	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	0.4	0	13.9	26.1
HCM LOS			B	D

Minor Lane/Major Mvmt	NELn1	NBL	NBT	NBR	SBL	SBT	SBRSWLn1
Capacity (veh/h)	476	943	-	-	1263	-	189
HCM Lane V/C Ratio	0.151	0.015	-	-	-	-	0.098
HCM Control Delay (s)	13.9	8.9	0	-	0	-	26.1
HCM Lane LOS	B	A	A	-	A	-	D
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	0.3

HCM 6th TWSC  
44: Riverwood Ave & Cumberland Rd

Future PM Peak

Intersection												
Int Delay, s/veh	3.3											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	77	997	36	0	637	0	0	0	47	19	0	0
Future Vol, veh/h	77	997	36	0	637	0	0	0	47	19	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	84	1084	39	0	692	0	0	0	51	21	0	0

Major/Minor	Major1			Major2			Minor2			Minor1		
Conflicting Flow All	692	0	0	1123	0	0	1964	1983	692	1990	1964	1104
Stage 1	-	-	-	-	-	-	692	692	-	1272	1272	-
Stage 2	-	-	-	-	-	-	1272	1291	-	718	692	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	898	-	-	618	-	-	47	61	442	45	63	255
Stage 1	-	-	-	-	-	-	433	444	-	205	238	-
Stage 2	-	-	-	-	-	-	205	233	-	419	444	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	898	-	-	618	-	-	38	46	442	32	47	255
Mov Cap-2 Maneuver	-	-	-	-	-	-	38	46	-	32	47	-
Stage 1	-	-	-	-	-	-	324	444	-	153	178	-
Stage 2	-	-	-	-	-	-	153	174	-	371	444	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	0.7	0	14.2	235.3
HCM LOS			B	F

Minor Lane/Major Mvmt	NELn1	NBL	NBT	NBR	SBL	SBT	SBRSWLn1
Capacity (veh/h)	442	898	-	-	618	-	32
HCM Lane V/C Ratio	0.116	0.093	-	-	-	-	0.645
HCM Control Delay (s)	14.2	9.4	0	-	0	-	235.3
HCM Lane LOS	B	A	A	-	A	-	F
HCM 95th %tile Q(veh)	0.4	0.3	-	-	0	-	2.2

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	78	15	129	14	9	805
Future Vol, veh/h	78	15	129	14	9	805
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	-	-	82	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	85	16	140	15	10	875

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1035	140	0	0	155
Stage 1	140	-	-	-	-
Stage 2	895	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	256	905	-	-	1419
Stage 1	884	-	-	-	-
Stage 2	397	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	254	905	-	-	1419
Mov Cap-2 Maneuver	254	-	-	-	-
Stage 1	884	-	-	-	-
Stage 2	394	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.2	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	287	1419
HCM Lane V/C Ratio	-	-	0.352	0.007
HCM Control Delay (s)	-	-	24.2	7.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.5	0

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑		↑	↑↑	↑↑	↑
Traffic Vol, veh/h	38	26	659	99	24	434
Future Vol, veh/h	38	26	659	99	24	434
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	-	-	82	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	41	28	716	108	26	472

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1240	716	0	0	824
Stage 1	716	-	-	-	-
Stage 2	524	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	193	428	-	-	802
Stage 1	482	-	-	-	-
Stage 2	592	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	187	428	-	-	802
Mov Cap-2 Maneuver	187	-	-	-	-
Stage 1	482	-	-	-	-
Stage 2	573	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.8	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	242	802
HCM Lane V/C Ratio	-	-	0.287	0.033
HCM Control Delay (s)	-	-	25.8	9.6
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	1.1	0.1

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	78	15	153	14	9	862
Future Vol, veh/h	78	15	153	14	9	862
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	-	-	82	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	85	16	166	15	10	937

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1123	166	0	0	181	0
Stage 1	166	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	226	876	-	-	1388	-
Stage 1	861	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	224	876	-	-	1388	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	368	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.1	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	255	1388
HCM Lane V/C Ratio	-	-	0.396	0.007
HCM Control Delay (s)	-	-	28.1	7.6
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	1.8	0



Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑	↑	↑	↑
Traffic Vol, veh/h	38	26	737	99	24	479
Future Vol, veh/h	38	26	737	99	24	479
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	-	-	82	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	41	28	801	108	26	521

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1374	801	0	0	909	0
Stage 1	801	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	160	383	-	-	745	-
Stage 1	440	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	154	383	-	-	745	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	440	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.7	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	203	745
HCM Lane V/C Ratio	-	-	0.343	0.035
HCM Control Delay (s)	-	-	31.7	10
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q(veh)	-	-	1.4	0.1

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	11	299	23	9	603	3	32	6	1	31	47	82
Future Vol, veh/h	11	299	23	9	603	3	32	6	1	31	47	82
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	485	-	-	523	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	325	25	10	655	3	35	7	1	34	51	89

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	658	0	0	350	0	0	1096	1027	325	1041	1049	655
Stage 1	-	-	-	-	-	-	349	349	-	675	675	-
Stage 2	-	-	-	-	-	-	747	678	-	366	374	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	925	-	-	1203	-	-	190	233	714	207	227	464
Stage 1	-	-	-	-	-	-	665	632	-	442	452	-
Stage 2	-	-	-	-	-	-	403	450	-	651	616	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	925	-	-	1203	-	-	123	226	714	198	220	464
Mov Cap-2 Maneuver	-	-	-	-	-	-	123	226	-	198	220	-
Stage 1	-	-	-	-	-	-	654	622	-	435	446	-
Stage 2	-	-	-	-	-	-	285	444	-	633	606	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			43.4			33.7		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	135	925	-	-	1203	-	-	293
HCM Lane V/C Ratio	0.314	0.013	-	-	0.008	-	-	0.594
HCM Control Delay (s)	43.4	8.9	0	-	8	0	-	33.7
HCM Lane LOS	E	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	3.5

Intersection												
Int Delay, s/veh	12.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	↕
Traffic Vol, veh/h	89	591	36	10	374	23	12	44	19	24	59	32
Future Vol, veh/h	89	591	36	10	374	23	12	44	19	24	59	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	485	-	-	523	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	97	642	39	11	407	25	13	48	21	26	64	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	432	0	0	681	0	0	1327	1290	642	1319	1304	407
Stage 1	-	-	-	-	-	-	836	836	-	429	429	-
Stage 2	-	-	-	-	-	-	491	454	-	890	875	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1122	-	-	907	-	-	132	163	472	133	160	642
Stage 1	-	-	-	-	-	-	360	381	-	602	582	-
Stage 2	-	-	-	-	-	-	557	568	-	336	366	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1122	-	-	907	-	-	70	138	472	83	135	642
Mov Cap-2 Maneuver	-	-	-	-	-	-	70	138	-	83	135	-
Stage 1	-	-	-	-	-	-	310	328	-	518	573	-
Stage 2	-	-	-	-	-	-	460	559	-	236	315	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.2			60.7			96.7		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	141	1122	-	-	907	-	-	148
HCM Lane V/C Ratio	0.578	0.086	-	-	0.012	-	-	0.845
HCM Control Delay (s)	60.7	8.5	0	-	9	0	-	96.7
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	2.9	0.3	-	-	0	-	-	5.6

Intersection												
Int Delay, s/veh	17.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	12	395	25	27	720	22	39	7	3	40	48	84
Future Vol, veh/h	12	395	25	27	720	22	39	7	3	40	48	84
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	485	-	-	523	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	429	27	29	783	24	42	8	3	43	52	91

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	807	0	0	456	0	0	1380	1320	429	1315	1323	783
Stage 1	-	-	-	-	-	-	455	455	-	841	841	-
Stage 2	-	-	-	-	-	-	925	865	-	474	482	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	814	-	-	1100	-	-	121	156	624	134	155	392
Stage 1	-	-	-	-	-	-	583	567	-	358	379	-
Stage 2	-	-	-	-	-	-	321	369	-	569	552	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	814	-	-	1100	-	-	63	145	624	121	144	392
Mov Cap-2 Maneuver	-	-	-	-	-	-	63	145	-	121	144	-
Stage 1	-	-	-	-	-	-	571	555	-	350	361	-
Stage 2	-	-	-	-	-	-	201	351	-	547	540	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			134.5			102.4		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	73	814	-	-	1100	-	-	196
HCM Lane V/C Ratio	0.73	0.016	-	-	0.027	-	-	0.954
HCM Control Delay (s)	134.5	9.5	0	-	8.4	0	-	102.4
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	3.4	0	-	-	0.1	-	-	7.8

HCM 6th TWSC  
46: Moontown Rd/Hinkle Rd & SR 38

Future PM Peak

Intersection												
Int Delay, s/veh	126.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	91	719	46	19	474	29	14	45	38	70	62	33
Future Vol, veh/h	91	719	46	19	474	29	14	45	38	70	62	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	485	-	-	523	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	99	782	50	21	515	32	15	49	41	76	67	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	547	0	0	832	0	0	1605	1569	782	1607	1587	515
Stage 1	-	-	-	-	-	-	980	980	-	557	557	-
Stage 2	-	-	-	-	-	-	625	589	-	1050	1030	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1017	-	-	796	-	-	84	110	393	84	107	558
Stage 1	-	-	-	-	-	-	299	327	-	513	511	-
Stage 2	-	-	-	-	-	-	471	494	-	273	309	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1017	-	-	796	-	-	23	86	393	~ 35	84	558
Mov Cap-2 Maneuver	-	-	-	-	-	-	23	86	-	~ 35	84	-
Stage 1	-	-	-	-	-	-	244	267	-	419	492	-
Stage 2	-	-	-	-	-	-	366	475	-	163	252	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.4			\$ 307.6			\$ 1067.3		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	79	1017	-	-	796	-	-	59
HCM Lane V/C Ratio	1.335	0.097	-	-	0.026	-	-	3.04
HCM Control Delay (s)	\$ 307.6	8.9	0	-	9.6	0	-	\$ 1067.3
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	8.2	0.3	-	-	0.1	-	-	18.6

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection				
Intersection Delay, s/veh	5.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	57	202	270	308
Demand Flow Rate, veh/h	58	208	278	317
Vehicles Circulating, veh/h	448	222	111	140
Vehicles Exiting, veh/h	9	167	395	290
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	5.1	5.0	5.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	58	208	278	317
Cap Entry Lane, veh/h	874	1100	1232	1196
Entry HV Adj Factor	0.981	0.971	0.971	0.971
Flow Entry, veh/h	57	202	270	308
Cap Entry, veh/h	857	1068	1196	1161
V/C Ratio	0.066	0.189	0.226	0.265
Control Delay, s/veh	4.8	5.1	5.0	5.5
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	1

Intersection				
Intersection Delay, s/veh	11.9			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	66	277	807	453
Demand Flow Rate, veh/h	68	285	831	466
Vehicles Circulating, veh/h	605	693	179	229
Vehicles Exiting, veh/h	90	317	494	749
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.9	11.4	14.7	8.0
Approach LOS	A	B	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	68	285	831	466
Cap Entry Lane, veh/h	744	681	1150	1092
Entry HV Adj Factor	0.971	0.971	0.971	0.971
Flow Entry, veh/h	66	277	807	453
Cap Entry, veh/h	723	661	1117	1061
V/C Ratio	0.091	0.419	0.723	0.427
Control Delay, s/veh	5.9	11.4	14.7	8.0
LOS	A	B	B	A
95th %tile Queue, veh	0	2	7	2

Intersection				
Intersection Delay, s/veh	7.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	57	209	330	608
Demand Flow Rate, veh/h	58	215	340	626
Vehicles Circulating, veh/h	764	282	111	147
Vehicles Exiting, veh/h	9	169	711	350
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.8	5.6	5.5	9.2
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	58	215	340	626
Cap Entry Lane, veh/h	633	1035	1232	1188
Entry HV Adj Factor	0.981	0.972	0.971	0.971
Flow Entry, veh/h	57	209	330	608
Cap Entry, veh/h	621	1006	1196	1153
V/C Ratio	0.092	0.208	0.276	0.527
Control Delay, s/veh	6.8	5.6	5.5	9.2
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	3



Intersection				
Intersection Delay, s/veh	20.9			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	66	280	1015	578
Demand Flow Rate, veh/h	68	288	1046	595
Vehicles Circulating, veh/h	735	901	179	230
Vehicles Exiting, veh/h	90	324	624	959
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.9	16.5	29.1	10.1
Approach LOS	A	C	D	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	68	288	1046	595
Cap Entry Lane, veh/h	652	551	1150	1091
Entry HV Adj Factor	0.971	0.971	0.971	0.971
Flow Entry, veh/h	66	280	1015	578
Cap Entry, veh/h	633	535	1116	1060
V/C Ratio	0.104	0.523	0.910	0.545
Control Delay, s/veh	6.9	16.5	29.1	10.1
LOS	A	C	D	B
95th %tile Queue, veh	0	3	14	3

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	176	205	6	15	10
Future Vol, veh/h	1	176	205	6	15	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	191	223	7	16	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	230	0	-	0	420 227
Stage 1	-	-	-	-	227 -
Stage 2	-	-	-	-	193 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1332	-	-	-	588 810
Stage 1	-	-	-	-	808 -
Stage 2	-	-	-	-	837 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1332	-	-	-	587 810
Mov Cap-2 Maneuver	-	-	-	-	587 -
Stage 1	-	-	-	-	807 -
Stage 2	-	-	-	-	837 -

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1332	-	-	-	660
HCM Lane V/C Ratio	0.001	-	-	-	0.041
HCM Control Delay (s)	7.7	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	17	309	297	9	14	17
Future Vol, veh/h	17	309	297	9	14	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	18	336	323	10	15	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	333	0	-	0	700 328
Stage 1	-	-	-	-	328 -
Stage 2	-	-	-	-	372 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1221	-	-	-	404 711
Stage 1	-	-	-	-	728 -
Stage 2	-	-	-	-	695 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1221	-	-	-	397 711
Mov Cap-2 Maneuver	-	-	-	-	397 -
Stage 1	-	-	-	-	715 -
Stage 2	-	-	-	-	695 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1221	-	-	-	524
HCM Lane V/C Ratio	0.015	-	-	-	0.064
HCM Control Delay (s)	8	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	177	211	14	47	10
Future Vol, veh/h	2	177	211	14	47	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	192	229	15	51	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	244	0	0	433	237
Stage 1	-	-	-	237	-
Stage 2	-	-	-	196	-
Critical Hdwy	4.13	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	3.527	3.327
Pot Cap-1 Maneuver	1316	-	-	578	800
Stage 1	-	-	-	800	-
Stage 2	-	-	-	835	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1316	-	-	577	800
Mov Cap-2 Maneuver	-	-	-	577	-
Stage 1	-	-	-	798	-
Stage 2	-	-	-	835	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1316	-	-	-	607
HCM Lane V/C Ratio	0.002	-	-	-	0.102
HCM Control Delay (s)	7.7	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	18	314	300	59	35	17
Future Vol, veh/h	18	314	300	59	35	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	20	341	326	64	38	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	390	0	-	0	739
Stage 1	-	-	-	-	358
Stage 2	-	-	-	-	381
Critical Hdwy	4.13	-	-	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	2.227	-	-	-	3.527
Pot Cap-1 Maneuver	1163	-	-	-	383
Stage 1	-	-	-	-	705
Stage 2	-	-	-	-	688
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1163	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-	375
Stage 1	-	-	-	-	690
Stage 2	-	-	-	-	688

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1163	-	-	-	440
HCM Lane V/C Ratio	0.017	-	-	-	0.128
HCM Control Delay (s)	8.1	0	-	-	14.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection						
Int Delay, s/veh	7.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	168	106	99	685	82
Future Vol, veh/h	39	168	106	99	685	82
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	-	90	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	42	183	115	108	745	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1128	790	834	0	-	0
Stage 1	790	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	225	389	795	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	720	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	192	389	795	-	-	-
Mov Cap-2 Maneuver	192	-	-	-	-	-
Stage 1	380	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	37.4	5.3	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	795	-	326	-	-
HCM Lane V/C Ratio	0.145	-	0.69	-	-
HCM Control Delay (s)	10.3	-	37.4	-	-
HCM Lane LOS	B	-	E	-	-
HCM 95th %tile Q(veh)	0.5	-	4.8	-	-

Intersection						
Int Delay, s/veh	19.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	223	292	700	267	68
Future Vol, veh/h	47	223	292	700	267	68
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	-	90	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	51	242	317	761	290	74

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1722	327	364	0	-	0
Stage 1	327	-	-	-	-	-
Stage 2	1395	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	98	712	1189	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	72	712	1189	-	-	-
Mov Cap-2 Maneuver	72	-	-	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	228	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	107.3	2.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1189	-	280	-	-
HCM Lane V/C Ratio	0.267	-	1.048	-	-
HCM Control Delay (s)	9.1	-	107.3	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	1.1	-	11.4	-	-

Intersection			
Intersection Delay, s/veh	11.4		
Intersection LOS	B		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	225	223	834
Demand Flow Rate, veh/h	231	229	859
Vehicles Circulating, veh/h	767	43	118
Vehicles Exiting, veh/h	210	955	154
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	11.0	4.3	13.3
Approach LOS	B	A	B
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	231	229	859
Cap Entry Lane, veh/h	631	1321	1223
Entry HV Adj Factor	0.974	0.973	0.971
Flow Entry, veh/h	225	223	834
Cap Entry, veh/h	615	1285	1187
V/C Ratio	0.366	0.173	0.702
Control Delay, s/veh	11.0	4.3	13.3
LOS	B	A	B
95th %tile Queue, veh	2	1	6



Intersection			
Intersection Delay, s/veh	15.5		
Intersection LOS	C		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	293	1078	364
Demand Flow Rate, veh/h	302	1111	375
Vehicles Circulating, veh/h	299	53	327
Vehicles Exiting, veh/h	403	548	837
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.7	20.5	7.9
Approach LOS	A	C	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	302	1111	375
Cap Entry Lane, veh/h	1017	1307	989
Entry HV Adj Factor	0.970	0.970	0.971
Flow Entry, veh/h	293	1078	364
Cap Entry, veh/h	987	1269	960
V/C Ratio	0.297	0.850	0.379
Control Delay, s/veh	6.7	20.5	7.9
LOS	A	C	A
95th %tile Queue, veh	1	11	2

Intersection						
Int Delay, s/veh	49.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	
Traffic Vol, veh/h	40	200	114	119	1124	85
Future Vol, veh/h	40	200	114	119	1124	85
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	-	90	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	43	217	124	129	1222	92

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1645	1268	1314	0	-	0
Stage 1	1268	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	109	~ 205	523	-	-	-
Stage 1	263	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	83	~ 205	523	-	-	-
Mov Cap-2 Maneuver	83	-	-	-	-	-
Stage 1	201	-	-	-	-	-
Stage 2	691	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s\$	338.1	6.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	523	-	165	-	-
HCM Lane V/C Ratio	0.237	-	1.581	-	-
HCM Control Delay (s)	14	-	\$ 338.1	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.9	-	17.6	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	91.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	48	244	344	1081	314	69
Future Vol, veh/h	48	244	344	1081	314	69
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	-	90	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	52	265	374	1175	341	75

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2302	379	416	0	-	0
Stage 1	379	-	-	-	-	-
Stage 2	1923	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	~ 42	666	1138	-	-	-
Stage 1	690	-	-	-	-	-
Stage 2	125	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 28	666	1138	-	-	-
Mov Cap-2 Maneuver	~ 28	-	-	-	-	-
Stage 1	463	-	-	-	-	-
Stage 2	125	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s\$	643.7	2.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1138	-	140	-	-
HCM Lane V/C Ratio	0.329	-	2.267	-	-
HCM Control Delay (s)	9.7	-	\$ 643.7	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	1.4	-	26.6	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection					
Intersection Delay, s/veh 9.9					
Intersection LOS A					
Approach	EB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	260	253		1314	
Demand Flow Rate, veh/h	268	261		1354	
Vehicles Circulating, veh/h	1259	44		128	
Vehicles Exiting, veh/h	223	1483		177	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	19.3	3.6		9.3	
Approach LOS	C	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	L	TR	LT	TR
Assumed Moves	LR	L	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.490	0.510	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	268	128	133	636	718
Cap Entry Lane, veh/h	487	1296	1368	1200	1274
Entry HV Adj Factor	0.970	0.969	0.971	0.971	0.970
Flow Entry, veh/h	260	124	129	618	697
Cap Entry, veh/h	472	1256	1328	1165	1236
V/C Ratio	0.550	0.099	0.097	0.530	0.564
Control Delay, s/veh	19.3	3.7	3.5	9.2	9.4
LOS	C	A	A	A	A
95th %tile Queue, veh	3	0	0	3	4

Intersection					
Intersection Delay, s/veh 15.3					
Intersection LOS C					
Approach	EB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	317	1549		416	
Demand Flow Rate, veh/h	327	1595		428	
Vehicles Circulating, veh/h	351	54		385	
Vehicles Exiting, veh/h	462	624		1264	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	6.7	19.5		5.9	
Approach LOS	A	C		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	L	TR	LT	TR
Assumed Moves	LR	L	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.241	0.759	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	327	385	1210	201	227
Cap Entry Lane, veh/h	1054	1284	1356	947	1024
Entry HV Adj Factor	0.969	0.971	0.971	0.972	0.971
Flow Entry, veh/h	317	374	1175	195	220
Cap Entry, veh/h	1022	1248	1317	921	994
V/C Ratio	0.310	0.300	0.892	0.212	0.222
Control Delay, s/veh	6.7	5.6	24.0	6.0	5.8
LOS	A	A	C	A	A
95th %tile Queue, veh	1	1	14	1	1

Intersection				
Intersection Delay, s/veh	5.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	47	110	84	426
Demand Flow Rate, veh/h	49	113	86	438
Vehicles Circulating, veh/h	400	89	43	108
Vehicles Exiting, veh/h	146	40	406	94
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.6	3.7	3.3	6.4
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	49	113	86	438
Cap Entry Lane, veh/h	918	1260	1321	1236
Entry HV Adj Factor	0.965	0.977	0.974	0.973
Flow Entry, veh/h	47	110	84	426
Cap Entry, veh/h	885	1231	1286	1202
V/C Ratio	0.053	0.090	0.065	0.354
Control Delay, s/veh	4.6	3.7	3.3	6.4
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	2

Intersection				
Intersection Delay, s/veh	6.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	220	122	421	259
Demand Flow Rate, veh/h	226	126	433	267
Vehicles Circulating, veh/h	240	532	225	74
Vehicles Exiting, veh/h	101	126	241	584
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.4	6.3	7.5	4.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	226	126	433	267
Cap Entry Lane, veh/h	1080	802	1097	1280
Entry HV Adj Factor	0.973	0.970	0.972	0.972
Flow Entry, veh/h	220	122	421	259
Cap Entry, veh/h	1051	778	1067	1243
V/C Ratio	0.209	0.157	0.395	0.209
Control Delay, s/veh	5.4	6.3	7.5	4.7
LOS	A	A	A	A
95th %tile Queue, veh	1	1	2	1

Intersection				
Intersection Delay, s/veh	8.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	47	110	254	749
Demand Flow Rate, veh/h	49	113	261	772
Vehicles Circulating, veh/h	730	264	43	108
Vehicles Exiting, veh/h	150	40	736	269
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	4.5	4.5	11.0
Approach LOS	A	A	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	49	113	261	772
Cap Entry Lane, veh/h	655	1054	1321	1236
Entry HV Adj Factor	0.965	0.977	0.972	0.971
Flow Entry, veh/h	47	110	254	749
Cap Entry, veh/h	632	1030	1283	1200
V/C Ratio	0.075	0.107	0.198	0.625
Control Delay, s/veh	6.5	4.5	4.5	11.0
LOS	A	A	A	B
95th %tile Queue, veh	0	0	1	5



Intersection				
Intersection Delay, s/veh	26.8			
Intersection LOS	D			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	222	122	1046	754
Demand Flow Rate, veh/h	228	126	1077	776
Vehicles Circulating, veh/h	745	1178	227	74
Vehicles Exiting, veh/h	105	126	746	1230
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.6	14.3	43.6	10.3
Approach LOS	B	B	E	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	228	126	1077	776
Cap Entry Lane, veh/h	645	415	1095	1280
Entry HV Adj Factor	0.974	0.970	0.971	0.971
Flow Entry, veh/h	222	122	1046	754
Cap Entry, veh/h	628	403	1063	1243
V/C Ratio	0.353	0.304	0.984	0.606
Control Delay, s/veh	10.6	14.3	43.6	10.3
LOS	B	B	E	B
95th %tile Queue, veh	2	1	19	4

Intersection						
Int Delay, s/veh	1.5					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↘↗		↘	↕↕	↕↕	↘
Traffic Vol, veh/h	32	55	16	149	599	73
Future Vol, veh/h	32	55	16	149	599	73
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	-	475	-	-	550
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	35	60	17	162	651	79

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	766	326	730	0	-	0
Stage 1	651	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	337	667	863	-	-	-
Stage 1	478	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	330	667	863	-	-	-
Mov Cap-2 Maneuver	330	-	-	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	14.2	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET SELn1	SWT	SWR
Capacity (veh/h)	863	-	485	-
HCM Lane V/C Ratio	0.02	-	0.195	-
HCM Control Delay (s)	9.3	-	14.2	-
HCM Lane LOS	A	-	B	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-

Intersection						
Int Delay, s/veh	3					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↖↗		↖	↕↕	↕↕	↖
Traffic Vol, veh/h	87	25	89	728	341	31
Future Vol, veh/h	87	25	89	728	341	31
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	-	475	-	-	550
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	95	27	97	791	371	34

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	961	186	405	0	-	0
Stage 1	371	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	252	821	1143	-	-	-
Stage 1	665	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	231	821	1143	-	-	-
Mov Cap-2 Maneuver	231	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	514	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	28.1	0.9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET SELn1	SWT	SWR
Capacity (veh/h)	1143	- 275	-	-
HCM Lane V/C Ratio	0.085	- 0.443	-	-
HCM Control Delay (s)	8.4	- 28.1	-	-
HCM Lane LOS	A	- D	-	-
HCM 95th %tile Q(veh)	0.3	- 2.1	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	TT		T	TT	TT	T
Traffic Vol, veh/h	32	55	16	179	796	73
Future Vol, veh/h	32	55	16	179	796	73
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	-	475	-	-	550
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	35	60	17	195	865	79

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	997	433	944	0	-	0
Stage 1	865	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	239	568	716	-	-	-
Stage 1	370	-	-	-	-	-
Stage 2	877	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	233	568	716	-	-	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	361	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	17.9	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET SELn1	SWT	SWR
Capacity (veh/h)	716	- 372	-	-
HCM Lane V/C Ratio	0.024	- 0.254	-	-
HCM Control Delay (s)	10.2	- 17.9	-	-
HCM Lane LOS	B	- C	-	-
HCM 95th %tile Q(veh)	0.1	- 1	-	-

Intersection						
Int Delay, s/veh	3.5					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	87	25	89	920	403	31
Future Vol, veh/h	87	25	89	920	403	31
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	-	475	-	-	550
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	95	27	97	1000	438	34

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1132	219	472	0	-	0
Stage 1	438	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	195	782	1079	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	177	782	1079	-	-	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	560	-	-	-	-	-
Stage 2	454	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	41.9	0.8	0
HCM LOS	E		

Minor Lane/Major Mvmt	NEL	NET SELn1	SWT	SWR
Capacity (veh/h)	1079	- 214	-	-
HCM Lane V/C Ratio	0.09	- 0.569	-	-
HCM Control Delay (s)	8.7	- 41.9	-	-
HCM Lane LOS	A	- E	-	-
HCM 95th %tile Q(veh)	0.3	- 3.1	-	-

Intersection					
Intersection Delay, s/veh 5.7					
Intersection LOS A					
Approach	SE	NE		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	95	212		944	
Demand Flow Rate, veh/h	98	219		972	
Vehicles Circulating, veh/h	891	36		18	
Vehicles Exiting, veh/h	99	953		237	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	7.3	3.4		6.0	
Approach LOS	A	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	98	103	116	457	515
Cap Entry Lane, veh/h	666	1306	1377	1328	1399
Entry HV Adj Factor	0.969	0.968	0.969	0.971	0.972
Flow Entry, veh/h	95	100	112	444	500
Cap Entry, veh/h	645	1264	1335	1289	1359
V/C Ratio	0.147	0.079	0.084	0.344	0.368
Control Delay, s/veh	7.3	3.5	3.4	6.0	6.0
LOS	A	A	A	A	A
95th %tile Queue, veh	1	0	0	2	2

Intersection					
Intersection Delay, s/veh	6.5				
Intersection LOS	A				
Approach	SE	NE		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	122	1097		472	
Demand Flow Rate, veh/h	126	1130		486	
Vehicles Circulating, veh/h	451	98		100	
Vehicles Exiting, veh/h	135	479		1128	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	5.1	7.5		4.6	
Approach LOS	A	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.469	0.531
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	126	531	599	228	258
Cap Entry Lane, veh/h	968	1233	1307	1231	1304
Entry HV Adj Factor	0.968	0.971	0.971	0.973	0.969
Flow Entry, veh/h	122	516	581	222	250
Cap Entry, veh/h	937	1198	1268	1198	1264
V/C Ratio	0.130	0.430	0.458	0.185	0.198
Control Delay, s/veh	5.1	7.4	7.5	4.6	4.5
LOS	A	A	A	A	A
95th %tile Queue, veh	0	2	2	1	1

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	17	0	119	4	0	153
Future Vol, veh/h	17	0	119	4	0	153
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	18	0	129	4	0	166

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	297	131	0	0	133	0
Stage 1	131	-	-	-	-	-
Stage 2	166	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	692	916	-	-	1446	-
Stage 1	893	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	692	916	-	-	1446	-
Mov Cap-2 Maneuver	692	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	861	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	692	1446
HCM Lane V/C Ratio	-	-	0.027	-
HCM Control Delay (s)	-	-	10.3	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0



Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	14	0	173	39	1	185
Future Vol, veh/h	14	0	173	39	1	185
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	15	0	188	42	1	201

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	412	209	0	0	230
Stage 1	209	-	-	-	-
Stage 2	203	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	594	829	-	-	1332
Stage 1	824	-	-	-	-
Stage 2	829	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	593	829	-	-	1332
Mov Cap-2 Maneuver	593	-	-	-	-
Stage 1	824	-	-	-	-
Stage 2	828	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	593	1332
HCM Lane V/C Ratio	-	-	0.026	0.001
HCM Control Delay (s)	-	-	11.2	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	17	1	221	4	1	544
Future Vol, veh/h	17	1	221	4	1	544
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	18	1	240	4	1	591

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	835	242	0	0	244	0
Stage 1	242	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	336	794	-	-	1316	-
Stage 1	796	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	336	794	-	-	1316	-
Mov Cap-2 Maneuver	336	-	-	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	549	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	347	1316
HCM Lane V/C Ratio	-	-	0.056	0.001
HCM Control Delay (s)	-	-	16	7.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T			T
Traffic Vol, veh/h	14	2	564	44	3	425
Future Vol, veh/h	14	2	564	44	3	425
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	15	2	613	48	3	462

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1105	637	0	0	661	0
Stage 1	637	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	232	475	-	-	923	-
Stage 1	525	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	231	475	-	-	923	-
Mov Cap-2 Maneuver	231	-	-	-	-	-
Stage 1	525	-	-	-	-	-
Stage 2	625	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.7	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	247	923
HCM Lane V/C Ratio	-	-	0.07	0.004
HCM Control Delay (s)	-	-	20.7	8.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	7	2	5	15	2	2
Future Vol, veh/h	7	2	5	15	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	8	2	5	16	2	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	10	0	35
Stage 1	-	-	-	-	9
Stage 2	-	-	-	-	26
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1603	-	975
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	994
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1603	-	972
Mov Cap-2 Maneuver	-	-	-	-	972
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	991

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1603	-
HCM Lane V/C Ratio	0.004	-	-	0.003	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	19	2	8	19	6	7
Future Vol, veh/h	19	2	8	19	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	2	9	21	7	8

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	23	0	61
Stage 1	-	-	-	-	22
Stage 2	-	-	-	-	39
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1586	-	943
Stage 1	-	-	-	-	998
Stage 2	-	-	-	-	981
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1586	-	937
Mov Cap-2 Maneuver	-	-	-	-	937
Stage 1	-	-	-	-	998
Stage 2	-	-	-	-	975

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	996	-	-	1586	-
HCM Lane V/C Ratio	0.014	-	-	0.005	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	7	2	15	15	2	2
Future Vol, veh/h	7	2	15	15	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	8	2	16	16	2	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	10	0	57
Stage 1	-	-	-	-	9
Stage 2	-	-	-	-	48
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1603	-	948
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	972
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1603	-	939
Mov Cap-2 Maneuver	-	-	-	-	939
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	962

Approach	EB	WB	NB
HCM Control Delay, s	0	3.6	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1000	-	-	1603	-
HCM Lane V/C Ratio	0.004	-	-	0.01	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	25	2	10	19	7	7
Future Vol, veh/h	25	2	10	19	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	27	2	11	21	8	8

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	29	0	71
Stage 1	-	-	-	-	28
Stage 2	-	-	-	-	43
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1578	-	931
Stage 1	-	-	-	-	992
Stage 2	-	-	-	-	977
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1578	-	924
Mov Cap-2 Maneuver	-	-	-	-	924
Stage 1	-	-	-	-	992
Stage 2	-	-	-	-	970

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	980	-	-	1578	-
HCM Lane V/C Ratio	0.016	-	-	0.007	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	117	191	0	1	0
Future Vol, veh/h	0	117	191	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	127	208	0	1	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	208	0	-	0	335 208
Stage 1	-	-	-	-	208 -
Stage 2	-	-	-	-	127 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1357	-	-	-	658 830
Stage 1	-	-	-	-	824 -
Stage 2	-	-	-	-	896 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1357	-	-	-	658 830
Mov Cap-2 Maneuver	-	-	-	-	658 -
Stage 1	-	-	-	-	824 -
Stage 2	-	-	-	-	896 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1357	-	-	-	658
HCM Lane V/C Ratio	-	-	-	-	0.002
HCM Control Delay (s)	0	-	-	-	10.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	10	201	118	0	0	0
Future Vol, veh/h	10	201	118	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	218	128	0	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	128	0	-	0	368 128
Stage 1	-	-	-	-	128 -
Stage 2	-	-	-	-	240 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1452	-	-	-	630 919
Stage 1	-	-	-	-	895 -
Stage 2	-	-	-	-	798 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1452	-	-	-	624 919
Mov Cap-2 Maneuver	-	-	-	-	624 -
Stage 1	-	-	-	-	887 -
Stage 2	-	-	-	-	798 -

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1452	-	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Control Delay (s)	7.5	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	138	248	0	1	10
Future Vol, veh/h	0	138	248	0	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	150	270	0	1	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	270	0	-	0	420 270
Stage 1	-	-	-	-	270 -
Stage 2	-	-	-	-	150 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1288	-	-	-	588 766
Stage 1	-	-	-	-	773 -
Stage 2	-	-	-	-	875 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1288	-	-	-	588 766
Mov Cap-2 Maneuver	-	-	-	-	588 -
Stage 1	-	-	-	-	773 -
Stage 2	-	-	-	-	875 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1288	-	-	-	745
HCM Lane V/C Ratio	-	-	-	-	0.016
HCM Control Delay (s)	0	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	250	140	1	0	2
Future Vol, veh/h	10	250	140	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	272	152	1	0	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	153	0	-	0	447 153
Stage 1	-	-	-	-	153 -
Stage 2	-	-	-	-	294 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1421	-	-	-	567 890
Stage 1	-	-	-	-	873 -
Stage 2	-	-	-	-	754 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1421	-	-	-	562 890
Mov Cap-2 Maneuver	-	-	-	-	562 -
Stage 1	-	-	-	-	865 -
Stage 2	-	-	-	-	754 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1421	-	-	-	890
HCM Lane V/C Ratio	0.008	-	-	-	0.002
HCM Control Delay (s)	7.6	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	0	1	189	0	0
Future Vol, veh/h	118	0	1	189	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	128	0	1	205	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	128	0	335
Stage 1	-	-	-	-	128
Stage 2	-	-	-	-	207
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1452	-	658
Stage 1	-	-	-	-	895
Stage 2	-	-	-	-	825
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1452	-	657
Mov Cap-2 Maneuver	-	-	-	-	657
Stage 1	-	-	-	-	895
Stage 2	-	-	-	-	824

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1452	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	0	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	203	0	0	120	0	10
Future Vol, veh/h	203	0	0	120	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	221	0	0	130	0	11

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	221	0	351	221
Stage 1	-	-	-	-	221	-
Stage 2	-	-	-	-	130	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1342	-	644	816
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1342	-	644	816
Mov Cap-2 Maneuver	-	-	-	-	644	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	894	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	816	-	-	1342	-
HCM Lane V/C Ratio	0.013	-	-	-	-
HCM Control Delay (s)	9.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	139	4	1	257	0	0
Future Vol, veh/h	139	4	1	257	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	151	4	1	279	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	155	0	434
Stage 1	-	-	-	-	153
Stage 2	-	-	-	-	281
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1419	-	577
Stage 1	-	-	-	-	873
Stage 2	-	-	-	-	764
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1419	-	576
Mov Cap-2 Maneuver	-	-	-	-	576
Stage 1	-	-	-	-	873
Stage 2	-	-	-	-	763

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1419	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	0	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	251	3	0	145	0	10
Future Vol, veh/h	251	3	0	145	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	273	3	0	158	0	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	276	0	433
Stage 1	-	-	-	-	275
Stage 2	-	-	-	-	158
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1281	-	578
Stage 1	-	-	-	-	769
Stage 2	-	-	-	-	868
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1281	-	578
Mov Cap-2 Maneuver	-	-	-	-	578
Stage 1	-	-	-	-	769
Stage 2	-	-	-	-	868

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	761	-	-	1281	-
HCM Lane V/C Ratio	0.014	-	-	-	-
HCM Control Delay (s)	9.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	91	30	34	218	2	57	106	6	17	170	63
Future Vol, veh/h	6	91	30	34	218	2	57	106	6	17	170	63
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	99	33	37	237	2	62	115	7	18	185	68
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	12.4	10.9	11.8
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	5%	13%	7%
Vol Thru, %	63%	72%	86%	68%
Vol Right, %	4%	24%	1%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	169	127	254	250
LT Vol	57	6	34	17
Through Vol	106	91	218	170
RT Vol	6	30	2	63
Lane Flow Rate	184	138	276	272
Geometry Grp	1	1	1	1
Degree of Util (X)	0.286	0.213	0.419	0.399
Departure Headway (Hd)	5.604	5.551	5.46	5.286
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	639	645	657	679
Service Time	3.652	3.601	3.502	3.331
HCM Lane V/C Ratio	0.288	0.214	0.42	0.401
HCM Control Delay	10.9	10.1	12.4	11.8
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.2	0.8	2.1	1.9



Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	164	80	33	121	7	49	217	54	3	180	26
Future Vol, veh/h	36	164	80	33	121	7	49	217	54	3	180	26
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	39	178	87	36	132	8	53	236	59	3	196	28
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.8	12.2	16.3	12.9
HCM LOS	B	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	13%	20%	1%
Vol Thru, %	68%	59%	75%	86%
Vol Right, %	17%	29%	4%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	320	280	161	209
LT Vol	49	36	33	3
Through Vol	217	164	121	180
RT Vol	54	80	7	26
Lane Flow Rate	348	304	175	227
Geometry Grp	1	1	1	1
Degree of Util (X)	0.566	0.502	0.309	0.383
Departure Headway (Hd)	5.856	5.942	6.36	6.072
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	619	609	565	593
Service Time	3.874	3.963	4.408	4.117
HCM Lane V/C Ratio	0.562	0.499	0.31	0.383
HCM Control Delay	16.3	14.8	12.2	12.9
HCM Lane LOS	C	B	B	B
HCM 95th-tile Q	3.5	2.8	1.3	1.8

Intersection	
Intersection Delay, s/veh	105.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	100	31	125	247	2	60	209	28	22	555	64
Future Vol, veh/h	6	100	31	125	247	2	60	209	28	22	555	64
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	109	34	136	268	2	65	227	30	24	603	70
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	17.2	42	26.7	197.7
HCM LOS	C	E	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	4%	33%	3%
Vol Thru, %	70%	73%	66%	87%
Vol Right, %	9%	23%	1%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	297	137	374	641
LT Vol	60	6	125	22
Through Vol	209	100	247	555
RT Vol	28	31	2	64
Lane Flow Rate	323	149	407	697
Geometry Grp	1	1	1	1
Degree of Util (X)	0.673	0.343	0.842	1.365
Departure Headway (Hd)	8.28	9.371	8.272	7.053
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	439	386	443	516
Service Time	6.28	7.371	6.272	5.116
HCM Lane V/C Ratio	0.736	0.386	0.919	1.351
HCM Control Delay	26.7	17.2	42	197.7
HCM Lane LOS	D	C	E	F
HCM 95th-tile Q	4.9	1.5	8.2	31.3

Intersection	
Intersection Delay, s/veh	247.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	195	88	74	135	8	68	610	133	4	415	30
Future Vol, veh/h	38	195	88	74	135	8	68	610	133	4	415	30
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	41	212	96	80	147	9	74	663	145	4	451	33
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	48.2	31.5	461.7	107.7
HCM LOS	E	D	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	12%	34%	1%
Vol Thru, %	75%	61%	62%	92%
Vol Right, %	16%	27%	4%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	811	321	217	449
LT Vol	68	38	74	4
Through Vol	610	195	135	415
RT Vol	133	88	8	30
Lane Flow Rate	882	349	236	488
Geometry Grp	1	1	1	1
Degree of Util (X)	1.964	0.818	0.601	1.093
Departure Headway (Hd)	8.411	10.85	11.963	10.131
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	441	338	304	361
Service Time	6.411	8.85	9.963	8.131
HCM Lane V/C Ratio	2	1.033	0.776	1.352
HCM Control Delay	461.7	48.2	31.5	107.7
HCM Lane LOS	F	E	D	F
HCM 95th-tile Q	57.1	7	3.6	14.3

Intersection				
Intersection Delay, s/veh	16.7			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	150	406	322	697
Demand Flow Rate, veh/h	154	418	332	718
Vehicles Circulating, veh/h	786	308	144	483
Vehicles Exiting, veh/h	415	168	796	243
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.2	8.3	5.7	28.2
Approach LOS	A	A	A	D
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	154	418	332	718
Cap Entry Lane, veh/h	619	1008	1191	843
Entry HV Adj Factor	0.972	0.971	0.970	0.971
Flow Entry, veh/h	150	406	322	697
Cap Entry, veh/h	602	979	1156	818
V/C Ratio	0.249	0.415	0.279	0.852
Control Delay, s/veh	9.2	8.3	5.7	28.2
LOS	A	A	A	D
95th %tile Queue, veh	1	2	1	10

Intersection				
Intersection Delay, s/veh 17.1				
Intersection LOS C				
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	349	236	882	488
Demand Flow Rate, veh/h	359	242	908	503
Vehicles Circulating, veh/h	551	801	264	309
Vehicles Exiting, veh/h	261	371	646	734
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.9	12.0	25.0	9.8
Approach LOS	B	B	C	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	359	242	908	503
Cap Entry Lane, veh/h	787	610	1054	1007
Entry HV Adj Factor	0.971	0.974	0.971	0.971
Flow Entry, veh/h	349	236	882	488
Cap Entry, veh/h	764	593	1024	978
V/C Ratio	0.456	0.397	0.861	0.500
Control Delay, s/veh	10.9	12.0	25.0	9.8
LOS	B	B	C	A
95th %tile Queue, veh	2	2	11	3

HCM 6th Signalized Intersection Summary  
73: SR 37 & 191st St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↗	↖	↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	5	95	393	308	215	7	170	161	36	0	664	17
Future Volume (veh/h)	5	95	393	308	215	7	170	161	36	0	664	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	103	427	335	234	8	185	175	39	0	722	18
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	15	319	284	379	383	13	308	1395	960	381	848	663
Arrive On Green	0.18	0.18	0.18	0.21	0.21	0.21	0.10	0.40	0.40	0.00	0.24	0.24
Sat Flow, veh/h	86	1766	1572	1767	1784	61	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	108	0	427	335	0	242	185	175	39	0	722	18
Grp Sat Flow(s),veh/h/ln	1851	0	1572	1767	0	1845	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	3.6	0.0	13.0	13.2	0.0	8.5	5.3	2.3	0.7	0.0	14.1	0.5
Cycle Q Clear(g_c), s	3.6	0.0	13.0	13.2	0.0	8.5	5.3	2.3	0.7	0.0	14.1	0.5
Prop In Lane	0.05		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	0	284	379	0	396	308	1395	960	381	848	663
V/C Ratio(X)	0.32	0.00	1.50	0.88	0.00	0.61	0.60	0.13	0.04	0.00	0.85	0.03
Avail Cap(c_a), veh/h	335	0	284	393	0	411	329	1395	960	575	932	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	0.0	29.4	27.4	0.0	25.5	18.3	13.8	5.6	0.0	26.1	12.2
Incr Delay (d2), s/veh	0.6	0.0	243.3	19.9	0.0	2.5	2.7	0.0	0.0	0.0	7.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	23.7	7.2	0.0	3.7	2.0	0.7	0.3	0.0	5.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	272.7	47.3	0.0	28.0	21.1	13.8	5.6	0.0	33.2	12.2
LnGrp LOS	C	A	F	D	A	C	C	B	A	A	C	B
Approach Vol, veh/h		535			577			399			740	
Approach Delay, s/veh		223.0			39.2			16.4			32.7	
Approach LOS		F			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	33.5		18.0	11.2	22.3		20.4				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	0.0	19.0		13.0	8.0	19.0		16.0				
Max Q Clear Time (g_c+1), s	0.0	4.3		15.0	7.3	16.1		15.2				
Green Ext Time (p_c), s	0.0	0.8		0.0	0.0	1.2		0.2				

Intersection Summary

HCM 6th Ctrl Delay	76.7
HCM 6th LOS	E

HCM 6th Signalized Intersection Summary  
73: SR 37 & 191st St

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↘	↙	↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	30	223	194	167	126	15	298	801	265	3	369	6
Future Volume (veh/h)	30	223	194	167	126	15	298	801	265	3	369	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	33	242	211	182	137	16	324	871	288	3	401	7
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	40	295	286	321	296	35	478	1209	825	180	641	572
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.17	0.34	0.34	0.01	0.18	0.18
Sat Flow, veh/h	221	1623	1572	1767	1631	190	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	275	0	211	182	0	153	324	871	288	3	401	7
Grp Sat Flow(s),veh/h/ln	1844	0	1572	1767	0	1821	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	9.5	0.0	8.4	6.2	0.0	5.0	9.2	14.2	7.0	0.1	6.9	0.2
Cycle Q Clear(g_c), s	9.5	0.0	8.4	6.2	0.0	5.0	9.2	14.2	7.0	0.1	6.9	0.2
Prop In Lane	0.12		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	0	286	321	0	331	478	1209	825	180	641	572
V/C Ratio(X)	0.82	0.00	0.74	0.57	0.00	0.46	0.68	0.72	0.35	0.02	0.63	0.01
Avail Cap(c_a), veh/h	335	0	286	321	0	331	478	1209	825	385	855	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	25.5	24.6	0.0	24.1	16.5	18.9	9.1	21.9	24.9	13.4
Incr Delay (d2), s/veh	14.8	0.0	9.6	2.3	0.0	1.0	3.8	2.1	0.3	0.0	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	3.6	2.6	0.0	2.0	3.4	5.0	2.9	0.0	2.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	35.1	27.0	0.0	25.1	20.3	21.0	9.4	21.9	25.9	13.4
LnGrp LOS	D	A	D	C	A	C	C	C	A	C	C	B
Approach Vol, veh/h		486			335			1483			411	
Approach Delay, s/veh		38.3			26.1			18.6			25.7	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	27.6		17.0	15.0	17.0		17.0				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	3.0	19.0		12.0	11.0	16.0		12.0				
Max Q Clear Time (g_c+1), s	11.5	16.2		11.5	11.2	8.9		8.2				
Green Ext Time (p_c), s	0.0	1.6		0.1	0.0	1.3		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											24.1	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
73: SR 37 & 191st St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↗	↖	↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	5	99	683	334	220	7	322	191	44	1	860	17
Future Volume (veh/h)	5	99	683	334	220	7	322	191	44	1	860	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	108	742	363	239	8	350	208	48	1	935	18
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	40	209	525	358	655	22	386	1749	1099	385	986	440
Arrive On Green	0.12	0.12	0.12	0.20	0.37	0.37	0.22	0.50	0.50	0.00	0.28	0.28
Sat Flow, veh/h	29	1808	1572	1767	1785	60	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	113	0	742	363	0	247	350	208	48	1	935	18
Grp Sat Flow(s),veh/h/ln	1837	0	1572	1767	0	1845	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	0.0	0.0	12.0	21.0	0.0	10.1	20.0	3.3	1.0	0.0	26.9	0.9
Cycle Q Clear(g_c), s	5.9	0.0	12.0	21.0	0.0	10.1	20.0	3.3	1.0	0.0	26.9	0.9
Prop In Lane	0.04		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	0	525	358	0	677	386	1749	1099	385	986	440
V/C Ratio(X)	0.45	0.00	1.41	1.01	0.00	0.36	0.91	0.12	0.04	0.00	0.95	0.04
Avail Cap(c_a), veh/h	249	0	525	358	0	677	495	1749	1099	518	987	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	0.0	34.5	41.3	0.0	24.0	39.5	14.0	4.8	26.7	36.6	27.2
Incr Delay (d2), s/veh	1.3	0.0	196.8	50.9	0.0	0.3	17.5	0.0	0.0	0.0	17.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	41.2	13.9	0.0	4.3	9.9	1.2	0.3	0.0	13.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	0.0	231.3	92.1	0.0	24.3	57.0	14.0	4.9	26.7	54.0	27.2
LnGrp LOS	D	A	F	F	A	C	E	B	A	C	D	C
Approach Vol, veh/h		855			610			606			954	
Approach Delay, s/veh		206.6			64.7			38.1			53.5	
Approach LOS		F			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	4.2	56.4	26.0	17.0	26.6	34.0		43.0				
Change Period (Y+Rc), s	4.0	5.0	5.0	5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	3.0	50.0	21.0	12.0	29.0	29.0		38.0				
Max Q Clear Time (g_c+1), s	12.0	5.3	23.0	14.0	22.0	28.9		12.1				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.6	0.0		1.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			95.9									
HCM 6th LOS			F									



HCM 6th Signalized Intersection Summary  
73: SR 37 & 191st St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↘	↙	↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	30	238	630	178	156	15	843	993	293	3	431	6
Future Volume (veh/h)	30	238	630	178	156	15	843	993	293	3	431	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	33	259	685	193	170	16	916	1079	318	3	468	7
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	53	267	977	189	513	48	862	2071	1092	113	478	213
Arrive On Green	0.16	0.16	0.16	0.11	0.31	0.31	0.46	0.59	0.59	0.01	0.14	0.14
Sat Flow, veh/h	146	1628	1572	1767	1670	157	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	292	0	685	193	0	186	916	1079	318	3	468	7
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1767	0	1827	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	17.0	0.0	23.0	15.0	0.0	11.0	64.0	25.5	10.8	0.2	18.5	0.5
Cycle Q Clear(g_c), s	23.0	0.0	23.0	15.0	0.0	11.0	64.0	25.5	10.8	0.2	18.5	0.5
Prop In Lane	0.11		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	320	0	977	189	0	561	862	2071	1092	113	478	213
V/C Ratio(X)	0.91	0.00	0.70	1.02	0.00	0.33	1.06	0.52	0.29	0.03	0.98	0.03
Avail Cap(c_a), veh/h	320	0	977	189	0	561	862	2071	1092	204	478	213
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	0.0	17.8	62.5	0.0	37.4	32.5	17.2	8.2	51.7	60.3	52.5
Incr Delay (d2), s/veh	29.1	0.0	2.3	70.5	0.0	0.3	48.5	0.2	0.1	0.1	35.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	0.0	14.4	10.4	0.0	4.9	36.3	9.4	3.4	0.1	10.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.5	0.0	20.0	133.0	0.0	37.8	81.0	17.4	8.3	51.8	95.7	52.6
LnGrp LOS	F	A	C	F	A	D	F	B	A	D	F	D
Approach Vol, veh/h		977			379			2313			478	
Approach Delay, s/veh		40.2			86.3			41.4			94.8	
Approach LOS		D			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	87.2	20.0	28.0	68.0	24.0		48.0				
Change Period (Y+Rc), s	4.0	5.0	5.0	5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	30.0	75.0	15.0	23.0	64.0	19.0		43.0				
Max Q Clear Time (g_c+1/2), s	12.2	27.5	17.0	25.0	66.0	20.5		13.0				
Green Ext Time (p_c), s	0.0	10.0	0.0	0.0	0.0	0.0		1.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											51.3	
HCM 6th LOS											D	

Intersection

Intersection Delay, s/veh 13.5

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	22	106	9	32	157	37	7	26	12	264	96	20
Future Vol, veh/h	22	106	9	32	157	37	7	26	12	264	96	20
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	24	115	10	35	171	40	8	28	13	287	104	22
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	10.6	11.6	9.2	16.1
HCM LOS	B	B	A	C

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	16%	16%	17%	0%	69%
Vol Thru, %	58%	77%	83%	0%	25%
Vol Right, %	27%	7%	0%	100%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	137	189	37	380
LT Vol	7	22	32	0	264
Through Vol	26	106	157	0	96
RT Vol	12	9	0	37	20
Lane Flow Rate	49	149	205	40	413
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.077	0.239	0.352	0.06	0.606
Departure Headway (Hd)	5.665	5.78	6.167	5.371	5.283
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	631	621	583	666	686
Service Time	3.712	3.82	3.902	3.106	3.312
HCM Lane V/C Ratio	0.078	0.24	0.352	0.06	0.602
HCM Control Delay	9.2	10.6	12.2	8.5	16.1
HCM Lane LOS	A	B	B	A	C
HCM 95th-tile Q	0.2	0.9	1.6	0.2	4.1

Intersection												
Intersection Delay, s/veh15.1												
Intersection LOS C												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	4	176	11	42	121	241	28	181	81	157	76	6
Future Vol, veh/h	4	176	11	42	121	241	28	181	81	157	76	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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	4	191	12	46	132	262	30	197	88	171	83	7
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	14.3	13.7	17	15.9
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	10%	2%	26%	0%	66%
Vol Thru, %	62%	92%	74%	0%	32%
Vol Right, %	28%	6%	0%	100%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	290	191	163	241	239
LT Vol	28	4	42	0	157
Through Vol	181	176	121	0	76
RT Vol	81	11	0	241	6
Lane Flow Rate	315	208	177	262	260
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.554	0.393	0.345	0.449	0.484
Departure Headway (Hd)	6.328	6.812	7.02	6.173	6.704
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	567	527	512	582	535
Service Time	4.381	4.873	4.773	3.925	4.76
HCM Lane V/C Ratio	0.556	0.395	0.346	0.45	0.486
HCM Control Delay	17	14.3	13.5	13.9	15.9
HCM Lane LOS	C	B	B	B	C
HCM 95th-tile Q	3.4	1.9	1.5	2.3	2.6

Intersection												
Intersection Delay, s/veh	72.2											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	22	106	9	32	158	193	7	26	12	558	96	20
Future Vol, veh/h	22	106	9	32	158	193	7	26	12	558	96	20
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	24	115	10	35	172	210	8	28	13	607	104	22
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	13.3	14.1	10.8	121.3
HCM LOS	B	B	B	F

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	16%	16%	17%	0%	83%
Vol Thru, %	58%	77%	83%	0%	14%
Vol Right, %	27%	7%	0%	100%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	137	190	193	674
LT Vol	7	22	32	0	558
Through Vol	26	106	158	0	96
RT Vol	12	9	0	193	20
Lane Flow Rate	49	149	207	210	733
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.091	0.283	0.397	0.357	1.188
Departure Headway (Hd)	7.109	7.417	7.509	6.704	5.84
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	507	487	483	539	623
Service Time	5.109	5.417	5.209	4.404	3.85
HCM Lane V/C Ratio	0.097	0.306	0.429	0.39	1.177
HCM Control Delay	10.8	13.3	15.1	13.1	121.3
HCM Lane LOS	B	B	C	B	F
HCM 95th-tile Q	0.3	1.2	1.9	1.6	25.3

Intersection												
Intersection Delay, s/veh	70.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	4	176	11	42	121	816	28	181	81	608	76	6
Future Vol, veh/h	4	176	11	42	121	816	28	181	81	608	76	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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	4	191	12	46	132	887	30	197	88	661	83	7
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	27.9	345.7	38.3	328.1
HCM LOS	D	F	E	F

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	10%	2%	26%	0%	88%
Vol Thru, %	62%	92%	74%	0%	11%
Vol Right, %	28%	6%	0%	100%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	290	191	163	816	690
LT Vol	28	4	42	0	608
Through Vol	181	176	121	0	76
RT Vol	81	11	0	816	6
Lane Flow Rate	315	208	177	887	750
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.717	0.515	0.41	1.846	1.653
Departure Headway (Hd)	11.285	12.414	9.811	8.943	9.306
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	325	293	370	417	397
Service Time	9.285	10.414	7.511	6.643	7.306
HCM Lane V/C Ratio	0.969	0.71	0.478	2.127	1.889
HCM Control Delay	38.3	27.9	19.2	410.9	328.1
HCM Lane LOS	E	D	C	F	F
HCM 95th-tile Q	5.2	2.8	1.9	48.3	37.9

Intersection				
Intersection Delay, s/veh	10.6			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	149	417	49	733
Demand Flow Rate, veh/h	153	429	50	755
Vehicles Circulating, veh/h	768	62	768	221
Vehicles Exiting, veh/h	208	756	153	270
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.0	5.9	6.7	13.8
Approach LOS	A	A	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	153	429	50	755
Cap Entry Lane, veh/h	630	1295	630	1101
Entry HV Adj Factor	0.971	0.972	0.983	0.971
Flow Entry, veh/h	149	417	49	733
Cap Entry, veh/h	612	1259	620	1069
V/C Ratio	0.243	0.331	0.079	0.685
Control Delay, s/veh	9.0	5.9	6.7	13.8
LOS	A	A	A	B
95th %tile Queue, veh	1	1	0	6

Intersection				
Intersection Delay, s/veh	31.3			
Intersection LOS	D			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	207	1065	315	751
Demand Flow Rate, veh/h	213	1097	325	773
Vehicles Circulating, veh/h	813	238	882	214
Vehicles Exiting, veh/h	174	969	144	1121
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.2	51.1	18.2	14.1
Approach LOS	B	F	C	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	213	1097	325	773
Cap Entry Lane, veh/h	602	1082	561	1109
Entry HV Adj Factor	0.973	0.971	0.969	0.971
Flow Entry, veh/h	207	1065	315	751
Cap Entry, veh/h	586	1051	544	1077
V/C Ratio	0.354	1.013	0.579	0.697
Control Delay, s/veh	11.2	51.1	18.2	14.1
LOS	B	F	C	B
95th %tile Queue, veh	2	21	4	6

Intersection						
Int Delay, s/veh	5.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑		↑	↑		↑
Traffic Vol, veh/h	230	0	22	81	0	162
Future Vol, veh/h	230	0	22	81	0	162
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	-	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	250	0	24	88	0	176

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	200	24	0	0	112	0
Stage 1	24	-	-	-	-	-
Stage 2	176	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	786	1050	-	-	1471	-
Stage 1	996	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	786	1050	-	-	1471	-
Mov Cap-2 Maneuver	786	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	852	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	786	1471
HCM Lane V/C Ratio	-	-	0.318	-
HCM Control Delay (s)	-	-	11.7	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0



Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↑		↔
Traffic Vol, veh/h	112	16	235	205	6	86
Future Vol, veh/h	112	16	235	205	6	86
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	-	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	122	17	255	223	7	93

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	362	255	0	0	478	0
Stage 1	255	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	635	781	-	-	1079	-
Stage 1	785	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	631	781	-	-	1079	-
Mov Cap-2 Maneuver	631	-	-	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	647	1079
HCM Lane V/C Ratio	-	-	0.215	0.006
HCM Control Delay (s)	-	-	12.1	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

Intersection						
Int Delay, s/veh	5.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y <sup>T</sup>		↑	↑		↑
Traffic Vol, veh/h	231	0	22	81	0	165
Future Vol, veh/h	231	0	22	81	0	165
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	-	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	251	0	24	88	0	179

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	203	24	0	0	112	0
Stage 1	24	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	783	1050	-	-	1471	-
Stage 1	996	-	-	-	-	-
Stage 2	850	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	783	1050	-	-	1471	-
Mov Cap-2 Maneuver	783	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	850	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	783	1471
HCM Lane V/C Ratio	-	-	0.321	-
HCM Control Delay (s)	-	-	11.8	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↑		↔
Traffic Vol, veh/h	112	16	237	205	6	89
Future Vol, veh/h	112	16	237	205	6	89
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	-	-	160	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	122	17	258	223	7	97

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	369	258	0	0	481
Stage 1	258	-	-	-	-
Stage 2	111	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	629	778	-	-	1076
Stage 1	783	-	-	-	-
Stage 2	911	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	625	778	-	-	1076
Mov Cap-2 Maneuver	625	-	-	-	-
Stage 1	783	-	-	-	-
Stage 2	905	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	641	1076
HCM Lane V/C Ratio	-	-	0.217	0.006
HCM Control Delay (s)	-	-	12.2	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑	↗	↖	↑	↘	↙
Traffic Vol, veh/h	648	4	12	580	0	50
Future Vol, veh/h	648	4	12	580	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	704	4	13	630	0	54

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	708	0	1360
Stage 1	-	-	-	-	704
Stage 2	-	-	-	-	656
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	886	-	163
Stage 1	-	-	-	-	489
Stage 2	-	-	-	-	514
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	886	-	161
Mov Cap-2 Maneuver	-	-	-	-	161
Stage 1	-	-	-	-	489
Stage 2	-	-	-	-	506

Approach	EB	WB	NE
HCM Control Delay, s	0	0.2	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	435	-	-	886	-
HCM Lane V/C Ratio	0.125	-	-	0.015	-
HCM Control Delay (s)	14.5	-	-	9.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑	↗	↖	↑	↘	↙
Traffic Vol, veh/h	956	17	49	629	4	104
Future Vol, veh/h	956	17	49	629	4	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1039	18	53	684	4	113

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1057	0	1829	1039
Stage 1	-	-	-	-	1039	-
Stage 2	-	-	-	-	790	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	655	-	84	279
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	445	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	655	-	77	279
Mov Cap-2 Maneuver	-	-	-	-	77	-
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	409	-

Approach	EB	WB	NE
HCM Control Delay, s	0	0.8	30.8
HCM LOS			D

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	254	-	-	655	-
HCM Lane V/C Ratio	0.462	-	-	0.081	-
HCM Control Delay (s)	30.8	-	-	11	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	2.3	-	-	0.3	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑	↗	↖	↑	↘	↙
Traffic Vol, veh/h	1584	4	12	895	2	51
Future Vol, veh/h	1584	4	12	895	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1722	4	13	973	2	55

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1726	0	2721
Stage 1	-	-	-	-	1722
Stage 2	-	-	-	-	999
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	363	-	23
Stage 1	-	-	-	-	157
Stage 2	-	-	-	-	355
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	363	-	22
Mov Cap-2 Maneuver	-	-	-	-	22
Stage 1	-	-	-	-	157
Stage 2	-	-	-	-	342

Approach	EB	WB	NE
HCM Control Delay, s	0	0.2	87.5
HCM LOS			F

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	96	-	-	363	-
HCM Lane V/C Ratio	0.6	-	-	0.036	-
HCM Control Delay (s)	87.5	-	-	15.3	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	2.8	-	-	0.1	-

Intersection						
Int Delay, s/veh	34.4					
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	1668	19	50	1729	5	105
Future Vol, veh/h	1668	19	50	1729	5	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	-	185	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1813	21	54	1879	5	114

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1834	0	3800
Stage 1	-	-	-	-	1813
Stage 2	-	-	-	-	1987
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	330	-	~ 4
Stage 1	-	-	-	-	142
Stage 2	-	-	-	-	116
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	330	-	~ 3
Mov Cap-2 Maneuver	-	-	-	-	~ 3
Stage 1	-	-	-	-	142
Stage 2	-	-	-	-	97

Approach	EB	WB	NE
HCM Control Delay, s	0	0.5	\$ 1109.4
HCM LOS			F

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	40	-	-	330	-
HCM Lane V/C Ratio	2.989	-	-	0.165	-
HCM Control Delay (s)	\$ 1109.4	-	-	18	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	13.3	-	-	0.6	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

























Intersection					
Intersection Delay, s/veh	9.2				
Intersection LOS	A				
Approach	EB		WB		NE
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	1726		986		57
Demand Flow Rate, veh/h	1778		1015		59
Vehicles Circulating, veh/h	13		2		1774
Vehicles Exiting, veh/h	1004		1831		17
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	10.8		6.1		15.5
Approach LOS	B		A		C
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	836	942	477	538	59
Cap Entry Lane, veh/h	1334	1405	1347	1418	314
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.966
Flow Entry, veh/h	811	915	463	522	57
Cap Entry, veh/h	1294	1364	1309	1377	304
V/C Ratio	0.627	0.671	0.354	0.379	0.188
Control Delay, s/veh	10.5	11.2	6.0	6.1	15.5
LOS	B	B	A	A	C
95th %tile Queue, veh	5	6	2	2	1



Intersection					
Intersection Delay, s/veh 13.4					
Intersection LOS B					
Approach	EB		WB		NE
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	1834		1933		119
Demand Flow Rate, veh/h	1889		1991		122
Vehicles Circulating, veh/h	56		5		1867
Vehicles Exiting, veh/h	1940		1984		78
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	13.2		13.0		23.7
Approach LOS	B		B		C
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	888	1001	936	1055	122
Cap Entry Lane, veh/h	1282	1354	1344	1414	290
Entry HV Adj Factor	0.970	0.971	0.970	0.971	0.975
Flow Entry, veh/h	862	972	908	1024	119
Cap Entry, veh/h	1244	1315	1304	1373	283
V/C Ratio	0.693	0.739	0.697	0.746	0.420
Control Delay, s/veh	12.6	13.7	12.3	13.6	23.7
LOS	B	B	B	B	C
95th %tile Queue, veh	6	7	6	8	2

























HCM 6th Signalized Intersection Summary  
77: Little Chicago Rd & SR 38

Existing AM Peak  
12/11/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	339	80	155	344	43	107	113	112	136	431	332
Future Volume (veh/h)	15	339	80	155	344	43	107	113	112	136	431	332
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	16	368	87	168	374	47	116	123	122	148	468	361
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	314	423	522	367	586	1185	312	394	352	505	439	338
Arrive On Green	0.03	0.23	0.23	0.12	0.32	0.32	0.10	0.22	0.22	0.11	0.23	0.23
Sat Flow, veh/h	1767	1856	1572	1767	1856	2768	1767	1763	1572	1767	1897	1459
Grp Volume(v), veh/h	16	368	87	168	374	47	116	123	122	148	435	394
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1384	1767	1763	1572	1767	1763	1593
Q Serve(g_s), s	0.4	10.7	2.2	3.7	9.7	0.6	2.7	3.3	3.7	3.4	13.0	13.0
Cycle Q Clear(g_c), s	0.4	10.7	2.2	3.7	9.7	0.6	2.7	3.3	3.7	3.4	13.0	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	314	423	522	367	586	1185	312	394	352	505	408	369
V/C Ratio(X)	0.05	0.87	0.17	0.46	0.64	0.04	0.37	0.31	0.35	0.29	1.07	1.07
Avail Cap(c_a), veh/h	517	430	528	414	586	1185	380	408	364	558	408	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	20.9	13.3	13.7	16.4	9.3	15.0	18.2	18.3	13.7	21.6	21.6
Incr Delay (d2), s/veh	0.1	17.1	0.1	0.9	2.3	0.0	0.7	0.4	0.6	0.3	63.0	66.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.0	0.7	1.3	3.8	0.1	0.9	1.2	1.2	1.2	11.7	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	38.0	13.4	14.6	18.8	9.3	15.7	18.6	18.9	14.0	84.5	87.8
LnGrp LOS	B	D	B	B	B	A	B	B	B	B	F	F
Approach Vol, veh/h		471			589			361			977	
Approach Delay, s/veh		32.7			16.8			17.8			75.2	
Approach LOS		C			B			B			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	17.5	10.5	17.8	9.9	18.0	5.5	22.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	8.0	13.0	8.0	13.0	8.0	13.0	8.0	13.0				
Max Q Clear Time (g_c+I1), s	5.4	5.7	5.7	12.7	4.7	15.0	2.4	11.7				
Green Ext Time (p_c), s	0.1	0.7	0.1	0.1	0.1	0.0	0.0	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				43.9								
HCM 6th LOS				D								

























HCM 6th Signalized Intersection Summary  
77: Little Chicago Rd & SR 38

Existing PM Peak  
12/11/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	471	114	171	310	113	130	467	280	110	299	100
Future Volume (veh/h)	212	471	114	171	310	113	130	467	280	110	299	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	230	512	124	186	337	123	141	508	304	120	325	109
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	426	565	624	307	531	1039	399	539	322	272	653	215
Arrive On Green	0.12	0.30	0.30	0.10	0.29	0.29	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	1767	1856	1572	1767	1856	2768	1767	2123	1267	1767	2605	859
Grp Volume(v), veh/h	230	512	124	186	337	123	141	422	390	120	218	216
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1384	1767	1763	1627	1767	1763	1701
Q Serve(g_s), s	6.3	18.8	3.7	5.1	11.2	2.1	4.0	16.6	16.7	3.4	7.5	7.7
Cycle Q Clear(g_c), s	6.3	18.8	3.7	5.1	11.2	2.1	4.0	16.6	16.7	3.4	7.5	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.78	1.00		0.50
Lane Grp Cap(c), veh/h	426	565	624	307	531	1039	399	447	413	272	442	426
V/C Ratio(X)	0.54	0.91	0.20	0.61	0.63	0.12	0.35	0.94	0.95	0.44	0.49	0.51
Avail Cap(c_a), veh/h	444	602	655	332	576	1106	435	447	413	313	447	432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	23.7	14.0	17.7	22.1	14.5	17.1	26.0	26.0	18.7	22.7	22.8
Incr Delay (d2), s/veh	1.2	16.9	0.2	2.8	2.0	0.1	0.5	28.5	30.7	1.1	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	10.0	1.2	2.1	4.7	0.6	1.5	9.7	9.2	1.3	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	40.6	14.2	20.4	24.1	14.5	17.7	54.4	56.7	19.9	23.6	23.7
LnGrp LOS	B	D	B	C	C	B	B	D	E	B	C	C
Approach Vol, veh/h		866			646			953			554	
Approach Delay, s/veh		30.5			21.2			49.9			22.8	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	23.0	11.0	26.6	10.6	22.8	12.3	25.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	8.0	18.0	8.0	23.0	8.0	18.0	9.0	22.0				
Max Q Clear Time (g_c+I1), s	5.4	18.7	7.1	20.8	6.0	9.7	8.3	13.2				
Green Ext Time (p_c), s	0.1	0.0	0.0	0.8	0.1	1.5	0.0	1.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.2								
HCM 6th LOS				C								

























HCM 6th Signalized Intersection Summary  
77: Little Chicago Rd & SR 38

Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	977	102	191	566	45	119	125	175	149	480	344
Future Volume (veh/h)	21	977	102	191	566	45	119	125	175	149	480	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	1062	111	208	615	49	129	136	190	162	522	374
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	51	928	870	177	1060	1817	142	344	306	286	445	318
Arrive On Green	0.03	0.50	0.50	0.10	0.57	0.57	0.05	0.19	0.19	0.09	0.23	0.23
Sat Flow, veh/h	1767	1856	1572	1767	1856	2768	1767	1763	1572	1767	1961	1404
Grp Volume(v), veh/h	23	1062	111	208	615	49	129	136	190	162	469	427
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1384	1767	1763	1572	1767	1763	1603
Q Serve(g_s), s	1.9	75.0	5.1	15.0	31.9	0.9	8.0	10.1	16.6	10.7	34.0	34.0
Cycle Q Clear(g_c), s	1.9	75.0	5.1	15.0	31.9	0.9	8.0	10.1	16.6	10.7	34.0	34.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	51	928	870	177	1060	1817	142	344	306	286	400	363
V/C Ratio(X)	0.45	1.14	0.13	1.18	0.58	0.03	0.91	0.40	0.62	0.57	1.17	1.18
Avail Cap(c_a), veh/h	94	928	870	177	1060	1817	142	344	306	313	400	363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.7	37.5	16.1	67.5	20.6	9.0	50.7	52.7	55.3	42.6	58.0	58.0
Incr Delay (d2), s/veh	6.2	77.9	0.1	123.4	0.8	0.0	48.7	0.7	3.8	2.0	101.7	104.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	52.6	1.8	12.8	13.6	0.3	5.8	4.5	6.8	4.8	26.2	24.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	115.4	16.2	190.9	21.4	9.0	99.4	53.4	59.1	44.6	159.7	162.0
LnGrp LOS	E	F	B	F	C	A	F	D	E	D	F	F
Approach Vol, veh/h		1196			872			455			1058	
Approach Delay, s/veh		105.5			61.1			68.8			143.0	
Approach LOS		F			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.8	34.2	19.0	80.0	12.0	39.0	8.3	90.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	27.0	15.0	75.0	8.0	34.0	8.0	82.0				
Max Q Clear Time (g_c+I1), s	12.7	18.6	17.0	77.0	10.0	36.0	3.9	33.9				
Green Ext Time (p_c), s	0.1	1.1	0.0	0.0	0.0	0.0	0.0	4.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				101.1								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary  
77: Little Chicago Rd & SR 38

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	951	132	246	1049	123	157	527	345	118	330	109
Future Volume (veh/h)	230	951	132	246	1049	123	157	527	345	118	330	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	250	1034	143	267	1140	134	171	573	375	128	359	118
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	212	891	881	224	903	1494	247	449	294	142	506	164
Arrive On Green	0.12	0.48	0.48	0.13	0.49	0.49	0.08	0.22	0.22	0.05	0.19	0.19
Sat Flow, veh/h	1767	1856	1572	1767	1856	2768	1767	2042	1336	1767	2618	848
Grp Volume(v), veh/h	250	1034	143	267	1140	134	171	495	453	128	240	237
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1384	1767	1763	1615	1767	1763	1703
Q Serve(g_s), s	18.0	72.0	6.6	19.0	73.0	3.5	11.5	33.0	33.0	8.0	19.1	19.6
Cycle Q Clear(g_c), s	18.0	72.0	6.6	19.0	73.0	3.5	11.5	33.0	33.0	8.0	19.1	19.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.83	1.00		0.50
Lane Grp Cap(c), veh/h	212	891	881	224	903	1494	247	388	355	142	341	329
V/C Ratio(X)	1.18	1.16	0.16	1.19	1.26	0.09	0.69	1.28	1.28	0.90	0.70	0.72
Avail Cap(c_a), veh/h	212	891	881	224	903	1494	247	388	355	142	341	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.0	39.0	16.0	65.5	38.5	16.7	44.2	58.5	58.5	50.7	56.5	56.7
Incr Delay (d2), s/veh	118.5	84.9	0.1	122.1	127.0	0.0	8.1	142.7	144.3	46.9	6.4	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	52.4	2.4	16.1	63.6	1.1	5.5	29.8	27.4	5.7	9.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	184.5	123.9	16.1	187.6	165.5	16.7	52.2	201.2	202.8	97.6	62.9	64.1
LnGrp LOS	F	F	B	F	F	B	D	F	F	F	E	E
Approach Vol, veh/h		1427			1541			1119			605	
Approach Delay, s/veh		123.7			156.4			179.1			70.7	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	38.0	23.0	77.0	16.0	34.0	22.0	78.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	8.0	33.0	19.0	72.0	12.0	29.0	18.0	73.0				
Max Q Clear Time (g_c+I1), s	10.0	35.0	21.0	74.0	13.5	21.6	20.0	75.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	140.8											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
77: Little Chicago Rd & SR 38

Future AM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	977	102	191	566	45	119	125	175	149	480	344
Future Volume (veh/h)	21	977	102	191	566	45	119	125	175	149	480	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	1062	111	208	615	49	129	136	190	162	522	374
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	60	1142	629	240	1501	1421	216	876	604	465	511	366
Arrive On Green	0.03	0.32	0.32	0.14	0.43	0.43	0.08	0.25	0.25	0.09	0.26	0.26
Sat Flow, veh/h	1767	3526	1572	1767	3526	2768	1767	3526	1572	1767	1961	1404
Grp Volume(v), veh/h	23	1062	111	208	615	49	129	136	190	162	469	427
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1384	1767	1763	1572	1767	1763	1603
Q Serve(g_s), s	1.1	25.7	4.0	10.2	10.7	0.8	4.7	2.7	7.5	5.9	23.0	23.0
Cycle Q Clear(g_c), s	1.1	25.7	4.0	10.2	10.7	0.8	4.7	2.7	7.5	5.9	23.0	23.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	60	1142	629	240	1501	1421	216	876	604	465	459	417
V/C Ratio(X)	0.38	0.93	0.18	0.87	0.41	0.03	0.60	0.16	0.31	0.35	1.02	1.02
Avail Cap(c_a), veh/h	160	1158	636	240	1501	1421	242	918	623	470	459	417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	28.9	17.1	37.4	17.6	10.6	24.5	25.9	19.0	21.5	32.7	32.7
Incr Delay (d2), s/veh	3.9	12.9	0.1	26.6	0.2	0.0	3.3	0.1	0.3	0.4	47.6	49.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	12.1	1.4	6.0	4.0	0.2	2.0	1.1	2.6	2.4	15.3	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.6	41.8	17.2	64.0	17.8	10.6	27.8	26.0	19.3	21.9	80.3	82.6
LnGrp LOS	D	D	B	E	B	B	C	C	B	C	F	F
Approach Vol, veh/h	1196			872			455			1058		
Approach Delay, s/veh	39.6			28.4			23.7			72.3		
Approach LOS	D			C			C			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	26.9	16.0	33.6	10.7	28.0	7.0	42.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	3.0	23.0	12.0	29.0	8.0	23.0	8.0	33.0				
Max Q Clear Time (g_c+11), s	9.5	9.5	12.2	27.7	6.7	25.0	3.1	12.7				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.9	0.0	0.0	0.0	4.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			44.5									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary  
77: Little Chicago Rd & SR 38

Future PM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	951	132	246	1049	123	157	527	345	118	330	109
Future Volume (veh/h)	230	951	132	246	1049	123	157	527	345	118	330	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	250	1034	143	267	1140	134	171	573	375	128	359	118
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	270	1164	677	293	1209	1181	307	674	561	260	456	148
Arrive On Green	0.15	0.33	0.33	0.17	0.34	0.34	0.10	0.19	0.19	0.08	0.17	0.17
Sat Flow, veh/h	1767	3526	1572	1767	3526	2768	1767	3526	1572	1767	2618	848
Grp Volume(v), veh/h	250	1034	143	267	1140	134	171	573	375	128	240	237
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1384	1767	1763	1572	1767	1763	1703
Q Serve(g_s), s	11.0	21.8	4.5	11.7	24.6	2.3	6.1	12.3	15.0	4.5	10.2	10.5
Cycle Q Clear(g_c), s	11.0	21.8	4.5	11.7	24.6	2.3	6.1	12.3	15.0	4.5	10.2	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	270	1164	677	293	1209	1181	307	674	561	260	307	297
V/C Ratio(X)	0.93	0.89	0.21	0.91	0.94	0.11	0.56	0.85	0.67	0.49	0.78	0.80
Avail Cap(c_a), veh/h	270	1168	679	293	1213	1184	309	674	561	292	337	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	24.9	14.0	32.2	25.0	13.6	23.7	30.7	21.3	24.3	31.0	31.1
Incr Delay (d2), s/veh	35.4	8.6	0.2	30.9	14.3	0.0	2.2	10.1	3.0	1.4	10.4	12.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	9.6	1.5	7.2	11.7	0.7	2.5	5.8	5.7	1.9	5.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	68.2	33.5	14.1	63.1	39.4	13.6	25.9	40.8	24.4	25.7	41.4	43.3
LnGrp LOS	E	C	B	E	D	B	C	D	C	C	D	D
Approach Vol, veh/h		1427			1541			1119			605	
Approach Delay, s/veh		37.7			41.2			33.0			38.8	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	20.0	17.0	30.9	11.9	18.7	16.0	31.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	15.0	13.0	26.0	8.0	15.0	12.0	27.0				
Max Q Clear Time (g_c+1/5), s	10.5	17.0	13.7	23.8	8.1	12.5	13.0	26.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	0.7	0.0	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											37.9	
HCM 6th LOS											D	

Intersection												
Intersection Delay, s/veh	14											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	67	12	25	411	59	46	50	18	0	46	8
Future Vol, veh/h	2	67	12	25	411	59	46	50	18	0	46	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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	73	13	27	447	64	50	54	20	0	50	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	16.3	9.8	9.1
HCM LOS	A	C	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	2%	5%	0%
Vol Thru, %	44%	83%	83%	85%
Vol Right, %	16%	15%	12%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	114	81	495	54
LT Vol	46	2	25	0
Through Vol	50	67	411	46
RT Vol	18	12	59	8
Lane Flow Rate	124	88	538	59
Geometry Grp	1	1	1	1
Degree of Util (X)	0.188	0.122	0.671	0.09
Departure Headway (Hd)	5.462	4.971	4.49	5.5
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	651	714	802	644
Service Time	3.548	3.051	2.541	3.596
HCM Lane V/C Ratio	0.19	0.123	0.671	0.092
HCM Control Delay	9.8	8.8	16.3	9.1
HCM Lane LOS	A	A	C	A
HCM 95th-tile Q	0.7	0.4	5.3	0.3



Intersection												
Intersection Delay, s/veh	15.9											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	401	30	44	191	14	26	60	79	34	71	9
Future Vol, veh/h	13	401	30	44	191	14	26	60	79	34	71	9
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	14	436	33	48	208	15	28	65	86	37	77	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20.4	12.9	11.6	11.3
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	3%	18%	30%
Vol Thru, %	36%	90%	77%	62%
Vol Right, %	48%	7%	6%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	165	444	249	114
LT Vol	26	13	44	34
Through Vol	60	401	191	71
RT Vol	79	30	14	9
Lane Flow Rate	179	483	271	124
Geometry Grp	1	1	1	1
Degree of Util (X)	0.298	0.711	0.425	0.22
Departure Headway (Hd)	5.984	5.305	5.651	6.378
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	595	680	633	559
Service Time	4.065	3.363	3.721	4.465
HCM Lane V/C Ratio	0.301	0.71	0.428	0.222
HCM Control Delay	11.6	20.4	12.9	11.3
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	1.2	5.9	2.1	0.8

Intersection												
Intersection Delay, s/veh	23.5											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	90	13	52	487	63	50	58	22	3	55	10
Future Vol, veh/h	2	90	13	52	487	63	50	58	22	3	55	10
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	98	14	57	529	68	54	63	24	3	60	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	30.2	10.9	10
HCM LOS	A	D	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	2%	9%	4%
Vol Thru, %	45%	86%	81%	81%
Vol Right, %	17%	12%	10%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	105	602	68
LT Vol	50	2	52	3
Through Vol	58	90	487	55
RT Vol	22	13	63	10
Lane Flow Rate	141	114	654	74
Geometry Grp	1	1	1	1
Degree of Util (X)	0.235	0.171	0.866	0.125
Departure Headway (Hd)	5.989	5.407	4.765	6.084
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	599	663	766	588
Service Time	4.036	3.447	2.765	4.137
HCM Lane V/C Ratio	0.235	0.172	0.854	0.126
HCM Control Delay	10.9	9.6	30.2	10
HCM Lane LOS	B	A	D	A
HCM 95th-tile Q	0.9	0.6	10.6	0.4

Intersection												
Intersection Delay, s/veh	31.4											
Intersection LOS	D											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	482	34	58	245	21	27	72	97	37	83	10
Future Vol, veh/h	15	482	34	58	245	21	27	72	97	37	83	10
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	16	524	37	63	266	23	29	78	105	40	90	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	49.3	19.4	14.6	13.5
HCM LOS	E	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	3%	18%	28%
Vol Thru, %	37%	91%	76%	64%
Vol Right, %	49%	6%	6%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	196	531	324	130
LT Vol	27	15	58	37
Through Vol	72	482	245	83
RT Vol	97	34	21	10
Lane Flow Rate	213	577	352	141
Geometry Grp	1	1	1	1
Degree of Util (X)	0.406	0.949	0.621	0.29
Departure Headway (Hd)	6.869	5.919	6.347	7.39
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	522	612	567	483
Service Time	4.949	3.977	4.418	5.479
HCM Lane V/C Ratio	0.408	0.943	0.621	0.292
HCM Control Delay	14.6	49.3	19.4	13.5
HCM Lane LOS	B	E	C	B
HCM 95th-tile Q	2	12.8	4.2	1.2

Intersection						
Intersection Delay, s/veh	5.9					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	190	130	270		809	
Demand Flow Rate, veh/h	196	134	278		833	
Vehicles Circulating, veh/h	522	440	168		173	
Vehicles Exiting, veh/h	484	6	550		401	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	6.3	5.1	4.1		6.5	
Approach LOS	A	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.471	0.529	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	196	134	131	147	392	441
Cap Entry Lane, veh/h	911	977	1157	1231	1151	1226
Entry HV Adj Factor	0.969	0.970	0.969	0.974	0.970	0.972
Flow Entry, veh/h	190	130	127	143	380	429
Cap Entry, veh/h	883	948	1121	1199	1116	1191
V/C Ratio	0.215	0.137	0.113	0.119	0.341	0.360
Control Delay, s/veh	6.3	5.1	4.2	4.0	6.6	6.5
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	0	0	0	2	2

Intersection						
Intersection Delay, s/veh	9.0					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	548	67	735		682	
Demand Flow Rate, veh/h	565	69	757		702	
Vehicles Circulating, veh/h	510	1110	493		114	
Vehicles Exiting, veh/h	306	140	582		1065	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	13.3	8.3	9.2		5.5	
Approach LOS	B	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	565	69	356	401	330	372
Cap Entry Lane, veh/h	921	553	858	934	1215	1289
Entry HV Adj Factor	0.971	0.973	0.970	0.971	0.972	0.972
Flow Entry, veh/h	548	67	345	389	321	362
Cap Entry, veh/h	893	538	832	907	1181	1253
V/C Ratio	0.614	0.125	0.415	0.429	0.272	0.289
Control Delay, s/veh	13.3	8.3	9.4	9.1	5.5	5.5
LOS	B	A	A	A	A	A
95th %tile Queue, veh	4	0	2	2	1	1

Intersection						
Intersection Delay, s/veh	7.3					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	282	130	398		940	
Demand Flow Rate, veh/h	290	134	410		968	
Vehicles Circulating, veh/h	605	583	179		267	
Vehicles Exiting, veh/h	630	6	716		450	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	8.3	5.8	4.7		8.3	
Approach LOS	A	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	290	134	193	217	455	513
Cap Entry Lane, veh/h	849	865	1145	1220	1056	1132
Entry HV Adj Factor	0.972	0.970	0.969	0.972	0.971	0.971
Flow Entry, veh/h	282	130	187	211	442	498
Cap Entry, veh/h	825	839	1110	1186	1026	1099
V/C Ratio	0.342	0.155	0.169	0.178	0.431	0.453
Control Delay, s/veh	8.3	5.8	4.7	4.6	8.3	8.2
LOS	A	A	A	A	A	A
95th %tile Queue, veh	2	1	1	1	2	2

Intersection						
Intersection Delay, s/veh	17.5					
Intersection LOS	C					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	756	67	996		784	
Demand Flow Rate, veh/h	779	69	1026		807	
Vehicles Circulating, veh/h	585	1434	548		259	
Vehicles Exiting, veh/h	481	140	816		1244	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	34.0	11.4	13.7		7.1	
Approach LOS	D	B	B		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	779	69	482	544	379	428
Cap Entry Lane, veh/h	864	420	815	891	1064	1139
Entry HV Adj Factor	0.971	0.973	0.971	0.971	0.972	0.971
Flow Entry, veh/h	756	67	468	528	368	416
Cap Entry, veh/h	839	408	792	865	1034	1106
V/C Ratio	0.902	0.164	0.591	0.610	0.356	0.376
Control Delay, s/veh	34.0	11.4	13.9	13.5	7.2	7.1
LOS	D	B	B	B	A	A
95th %tile Queue, veh	12	1	4	4	2	2

HCM 6th Signalized Intersection Summary  
 80: Gretna Green Ln/S Harbour Dr & SR 38

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	623	0	1	364	59	13	0	23	112	0	87
Future Volume (veh/h)	31	623	0	1	364	59	13	0	23	112	0	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	677	0	1	396	64	14	0	25	122	0	95
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	462	830	0	286	830	703	236	51	284	596	0	460
Arrive On Green	0.45	0.45	0.00	0.45	0.45	0.45	0.29	0.00	0.29	0.29	0.00	0.29
Sat Flow, veh/h	924	1856	0	756	1856	1572	371	174	973	1375	0	1572
Grp Volume(v), veh/h	34	677	0	1	396	64	39	0	0	122	0	95
Grp Sat Flow(s),veh/h/ln	924	1856	0	756	1856	1572	1518	0	0	1375	0	1572
Q Serve(g_s), s	1.0	12.2	0.0	0.0	5.8	0.9	0.0	0.0	0.0	1.8	0.0	1.7
Cycle Q Clear(g_c), s	6.8	12.2	0.0	12.2	5.8	0.9	0.7	0.0	0.0	2.4	0.0	1.7
Prop In Lane	1.00		0.00	1.00		1.00	0.36		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	462	830	0	286	830	703	571	0	0	596	0	460
V/C Ratio(X)	0.07	0.82	0.00	0.00	0.48	0.09	0.07	0.00	0.00	0.20	0.00	0.21
Avail Cap(c_a), veh/h	603	1112	0	401	1112	942	601	0	0	624	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.8	9.2	0.0	14.6	7.5	6.1	9.8	0.0	0.0	10.4	0.0	10.2
Incr Delay (d2), s/veh	0.1	3.6	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.6	0.0	0.0	1.4	0.2	0.2	0.0	0.0	0.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	12.8	0.0	14.6	7.9	6.2	9.9	0.0	0.0	10.6	0.0	10.4
LnGrp LOS	A	B	A	B	A	A	A	A	A	B	A	B
Approach Vol, veh/h		711			461			39				217
Approach Delay, s/veh		12.7			7.7			9.9				10.5
Approach LOS		B			A			A				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.2		22.2		16.2		22.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		12.0		23.0		12.0		23.0				
Max Q Clear Time (g_c+I1), s		2.7		14.2		4.4		14.2				
Green Ext Time (p_c), s		0.1		3.0		0.5		1.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												10.6
HCM 6th LOS												B



HCM 6th Signalized Intersection Summary  
 80: Gretna Green Ln/S Harbour Dr & SR 38

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	834	7	20	571	143	10	0	6	114	0	43
Future Volume (veh/h)	63	834	7	20	571	143	10	0	6	114	0	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	68	907	8	22	621	155	11	0	7	124	0	47
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	396	1062	9	245	1073	910	287	27	126	457	0	349
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.22	0.00	0.22	0.22	0.00	0.22
Sat Flow, veh/h	690	1836	16	605	1856	1572	773	120	569	1397	0	1572
Grp Volume(v), veh/h	68	0	915	22	621	155	18	0	0	124	0	47
Grp Sat Flow(s),veh/h/ln	690	0	1853	605	1856	1572	1462	0	0	1397	0	1572
Q Serve(g_s), s	3.5	0.0	20.6	1.6	10.6	2.3	0.0	0.0	0.0	3.3	0.0	1.2
Cycle Q Clear(g_c), s	14.1	0.0	20.6	22.2	10.6	2.3	0.4	0.0	0.0	3.7	0.0	1.2
Prop In Lane	1.00		0.01	1.00		1.00	0.61		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	396	0	1072	245	1073	910	440	0	0	457	0	349
V/C Ratio(X)	0.17	0.00	0.85	0.09	0.58	0.17	0.04	0.00	0.00	0.27	0.00	0.13
Avail Cap(c_a), veh/h	520	0	1404	353	1406	1192	465	0	0	481	0	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.2	0.0	8.8	18.0	6.7	4.9	15.3	0.0	0.0	16.6	0.0	15.6
Incr Delay (d2), s/veh	0.2	0.0	4.2	0.2	0.5	0.1	0.0	0.0	0.0	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	5.8	0.2	2.5	0.5	0.2	0.0	0.0	1.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	0.0	13.0	18.2	7.2	5.0	15.4	0.0	0.0	16.9	0.0	15.8
LnGrp LOS	B	A	B	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		983			798			18			171	
Approach Delay, s/veh		12.9			7.1			15.4			16.6	
Approach LOS		B			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.1		34.0		16.1		34.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		12.0		38.0		12.0		38.0				
Max Q Clear Time (g_c+I1), s		2.4		22.6		5.7		24.2				
Green Ext Time (p_c), s		0.0		6.4		0.3		3.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												10.9
HCM 6th LOS												B

HCM 6th Signalized Intersection Summary  
 80: Gretna Green Ln/S Harbour Dr & SR 38

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1560	0	1	679	59	13	0	23	112	0	87
Future Volume (veh/h)	31	1560	0	1	679	59	13	0	23	112	0	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	1696	0	1	738	64	14	0	25	122	0	95
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	557	1583	0	48	1583	1342	44	13	43	135	0	126
Arrive On Green	0.85	0.85	0.00	0.85	0.85	0.85	0.08	0.00	0.08	0.08	0.00	0.08
Sat Flow, veh/h	673	1856	0	287	1856	1572	136	165	539	1375	0	1572
Grp Volume(v), veh/h	34	1696	0	1	738	64	39	0	0	122	0	95
Grp Sat Flow(s),veh/h/ln	673	1856	0	287	1856	1572	841	0	0	1375	0	1572
Q Serve(g_s), s	1.9	128.0	0.0	0.0	14.5	0.9	0.2	0.0	0.0	3.0	0.0	8.9
Cycle Q Clear(g_c), s	16.5	128.0	0.0	128.0	14.5	0.9	9.0	0.0	0.0	12.0	0.0	8.9
Prop In Lane	1.00		0.00	1.00		1.00	0.36		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	557	1583	0	48	1583	1342	100	0	0	135	0	126
V/C Ratio(X)	0.06	1.07	0.00	0.02	0.47	0.05	0.39	0.00	0.00	0.90	0.00	0.76
Avail Cap(c_a), veh/h	557	1583	0	48	1583	1342	100	0	0	135	0	126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.7	11.0	0.0	75.0	2.7	1.7	65.1	0.0	0.0	71.0	0.0	67.6
Incr Delay (d2), s/veh	0.0	44.4	0.0	0.2	0.2	0.0	2.5	0.0	0.0	49.7	0.0	22.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	49.5	0.0	0.0	3.5	0.2	1.5	0.0	0.0	6.6	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	55.4	0.0	75.2	2.9	1.7	67.6	0.0	0.0	120.8	0.0	90.1
LnGrp LOS	A	F	A	E	A	A	E	A	A	F	A	F
Approach Vol, veh/h	1730			803			39			217		
Approach Delay, s/veh	54.4			2.9			67.6			107.3		
Approach LOS	D			A			E			F		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	17.0		133.0		17.0		133.0					
Change Period (Y+Rc), s	5.0		5.0		5.0		5.0					
Max Green Setting (Gmax), s	12.0		128.0		12.0		128.0					
Max Q Clear Time (g_c+I1), s	11.0		130.0		14.0		130.0					
Green Ext Time (p_c), s	0.0		0.0		0.0		0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	43.8											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary  
80: Gretna Green Ln/S Harbour Dr & SR 38

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1547	7	20	1672	143	10	0	6	114	0	43
Future Volume (veh/h)	63	1547	7	20	1672	143	10	0	6	114	0	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	68	1682	8	22	1817	155	11	0	7	124	0	47
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	48	1575	7	48	1583	1342	84	9	34	167	0	126
Arrive On Green	0.85	0.85	0.85	0.85	0.85	0.85	0.08	0.00	0.08	0.08	0.00	0.08
Sat Flow, veh/h	220	1845	9	289	1856	1572	563	112	430	1397	0	1572
Grp Volume(v), veh/h	68	0	1690	22	1817	155	18	0	0	124	0	47
Grp Sat Flow(s),veh/h/ln	220	0	1854	289	1856	1572	1105	0	0	1397	0	1572
Q Serve(g_s), s	0.0	0.0	128.0	0.0	128.0	2.4	0.3	0.0	0.0	7.5	0.0	4.3
Cycle Q Clear(g_c), s	128.0	0.0	128.0	128.0	128.0	2.4	4.5	0.0	0.0	12.0	0.0	4.3
Prop In Lane	1.00		0.00	1.00		1.00	0.61		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	48	0	1582	48	1583	1342	127	0	0	167	0	126
V/C Ratio(X)	1.42	0.00	1.07	0.46	1.15	0.12	0.14	0.00	0.00	0.74	0.00	0.37
Avail Cap(c_a), veh/h	48	0	1582	48	1583	1342	127	0	0	167	0	126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	75.0	0.0	11.0	75.0	11.0	1.8	64.5	0.0	0.0	69.0	0.0	65.4
Incr Delay (d2), s/veh	274.6	0.0	43.3	6.7	74.3	0.0	0.5	0.0	0.0	16.3	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lt	5.5	0.0	48.9	0.9	62.6	0.5	0.7	0.0	0.0	5.6	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	349.6	0.0	54.3	81.7	85.3	1.8	65.0	0.0	0.0	85.3	0.0	67.3
LnGrp LOS	F	A	F	F	F	A	E	A	A	F	A	E
Approach Vol, veh/h		1758			1994			18			171	
Approach Delay, s/veh		65.7			78.8			65.0			80.4	
Approach LOS		E			E			E			F	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		17.0		133.0		17.0		133.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		12.0		128.0		12.0		128.0				
Max Q Clear Time (g_c+I1), s		6.5		130.0		14.0		130.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												73.0
HCM 6th LOS												E

HCM 6th Signalized Intersection Summary  
 80: Gretna Green Ln/S Harbour Dr & SR 38

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1560	0	1	679	59	13	0	23	112	0	87
Future Volume (veh/h)	31	1560	0	1	679	59	13	0	23	112	0	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	1696	0	1	738	64	14	0	25	122	0	95
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	456	2051	0	195	2051	915	179	38	219	456	0	355
Arrive On Green	0.58	0.58	0.00	0.58	0.58	0.58	0.23	0.00	0.23	0.23	0.00	0.23
Sat Flow, veh/h	673	3618	0	287	3526	1572	376	169	972	1375	0	1572
Grp Volume(v), veh/h	34	1696	0	1	738	64	39	0	0	122	0	95
Grp Sat Flow(s),veh/h/ln	673	1763	0	287	1763	1572	1516	0	0	1375	0	1572
Q Serve(g_s), s	1.5	20.1	0.0	0.1	5.7	0.9	0.0	0.0	0.0	2.6	0.0	2.6
Cycle Q Clear(g_c), s	7.2	20.1	0.0	20.3	5.7	0.9	1.0	0.0	0.0	3.6	0.0	2.6
Prop In Lane	1.00		0.00	1.00		1.00	0.36		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	456	2051	0	195	2051	915	436	0	0	456	0	355
V/C Ratio(X)	0.07	0.83	0.00	0.01	0.36	0.07	0.09	0.00	0.00	0.27	0.00	0.27
Avail Cap(c_a), veh/h	492	2242	0	210	2242	1000	445	0	0	464	0	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.6	8.7	0.0	16.9	5.7	4.7	15.9	0.0	0.0	16.9	0.0	16.6
Incr Delay (d2), s/veh	0.1	2.5	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.3	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.1	0.0	0.0	1.3	0.2	0.3	0.0	0.0	1.2	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.7	11.3	0.0	16.9	5.8	4.8	16.0	0.0	0.0	17.2	0.0	17.0
LnGrp LOS	A	B		B	A	A	B			B		B
Approach Vol, veh/h		1730			803			39				217
Approach Delay, s/veh		11.2			5.8			16.0				17.1
Approach LOS		B			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.7		35.2		16.7		35.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		12.0		33.0		12.0		33.0				
Max Q Clear Time (g_c+I1), s		3.0		22.1		5.6		22.3				
Green Ext Time (p_c), s		0.1		8.1		0.5		3.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh												10.2
HCM 6th LOS												B

HCM 6th Signalized Intersection Summary  
 80: Gretna Green Ln/S Harbour Dr & SR 38

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1547	7	20	1672	143	10	0	6	114	0	43
Future Volume (veh/h)	63	1547	7	20	1672	143	10	0	6	114	0	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	68	1682	8	22	1817	155	11	0	7	124	0	47
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	2278	11	213	2232	996	248	23	110	406	0	308
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.20	0.00	0.20	0.20	0.00	0.20
Sat Flow, veh/h	220	3598	17	289	3526	1572	762	117	559	1397	0	1572
Grp Volume(v), veh/h	68	824	866	22	1817	155	18	0	0	124	0	47
Grp Sat Flow(s),veh/h/ln	220	1763	1852	289	1763	1572	1439	0	0	1397	0	1572
Q Serve(g_s), s	14.2	18.8	18.8	3.3	22.8	2.3	0.0	0.0	0.0	2.7	0.0	1.4
Cycle Q Clear(g_c), s	37.0	18.8	18.8	22.2	22.8	2.3	1.5	0.0	0.0	4.2	0.0	1.4
Prop In Lane	1.00		0.01	1.00		1.00	0.61		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	177	1116	1173	213	2232	996	381	0	0	406	0	308
V/C Ratio(X)	0.39	0.74	0.74	0.10	0.81	0.16	0.05	0.00	0.00	0.31	0.00	0.15
Avail Cap(c_a), veh/h	177	1116	1173	213	2232	996	419	0	0	443	0	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.7	7.4	7.4	15.0	8.1	4.4	19.1	0.0	0.0	20.5	0.0	19.5
Incr Delay (d2), s/veh	1.4	2.6	2.5	0.2	2.4	0.1	0.1	0.0	0.0	0.4	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.9	5.1	0.2	5.7	0.5	0.2	0.0	0.0	1.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.0	10.0	9.9	15.2	10.5	4.4	19.1	0.0	0.0	20.9	0.0	19.7
LnGrp LOS	C	B	A	B	B	A	B			C		B
Approach Vol, veh/h		1758			1994			18				171
Approach Delay, s/veh		10.5			10.1			19.1				20.6
Approach LOS		B			B			B				C
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.4		42.0		16.4		42.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		13.0		37.0		13.0		37.0				
Max Q Clear Time (g_c+I1), s		3.5		39.0		6.2		24.8				
Green Ext Time (p_c), s		0.0		0.0		0.3		9.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				10.8								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	7	727	4	6	378	2	7	0	83	43	0	62
Future Vol, veh/h	7	727	4	6	378	2	7	0	83	43	0	62
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	220	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	790	4	7	411	2	8	0	90	47	0	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	413	0	0	794	0	0	1268	1235	792	1279	1236	412
Stage 1	-	-	-	-	-	-	808	808	-	426	426	-
Stage 2	-	-	-	-	-	-	460	427	-	853	810	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1141	-	-	823	-	-	145	176	388	142	175	638
Stage 1	-	-	-	-	-	-	373	393	-	604	584	-
Stage 2	-	-	-	-	-	-	579	584	-	352	392	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1141	-	-	823	-	-	128	173	388	108	172	638
Mov Cap-2 Maneuver	-	-	-	-	-	-	128	173	-	108	172	-
Stage 1	-	-	-	-	-	-	370	390	-	600	579	-
Stage 2	-	-	-	-	-	-	513	579	-	268	389	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			20.1			40.2		
HCM LOS							C			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	335	1141	-	-	823	-	-	212
HCM Lane V/C Ratio	0.292	0.007	-	-	0.008	-	-	0.538
HCM Control Delay (s)	20.1	8.2	-	-	9.4	-	-	40.2
HCM Lane LOS	C	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	2.8

Intersection												
Int Delay, s/veh	13.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	67	841	16	35	694	74	5	0	54	36	0	33
Future Vol, veh/h	67	841	16	35	694	74	5	0	54	36	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	220	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	73	914	17	38	754	80	5	0	59	39	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	834	0	0	931	0	0	1957	1979	923	1968	1947	794
Stage 1	-	-	-	-	-	-	1069	1069	-	870	870	-
Stage 2	-	-	-	-	-	-	888	910	-	1098	1077	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	795	-	-	731	-	-	48	61	326	47	64	386
Stage 1	-	-	-	-	-	-	267	297	-	345	367	-
Stage 2	-	-	-	-	-	-	337	352	-	257	294	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	795	-	-	731	-	-	39	53	326	~ 34	55	386
Mov Cap-2 Maneuver	-	-	-	-	-	-	39	53	-	~ 34	55	-
Stage 1	-	-	-	-	-	-	242	270	-	313	348	-
Stage 2	-	-	-	-	-	-	290	334	-	191	267	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			0.4			31.1			\$ 313.4		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	201	795	-	-	731	-	-	60
HCM Lane V/C Ratio	0.319	0.092	-	-	0.052	-	-	1.25
HCM Control Delay (s)	31.1	10	-	-	10.2	-	-	\$ 313.4
HCM Lane LOS	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	1.3	0.3	-	-	0.2	-	-	6.3

Notes			
-: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection												
Int Delay, s/veh	1188.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	7	1664	4	6	693	2	7	0	83	43	0	62
Future Vol, veh/h	7	1664	4	6	693	2	7	0	83	43	0	62
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	220	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	1809	4	7	753	2	8	0	90	47	0	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	755	0	0	1813	0	0	2629	2596	1811	2640	2597	754
Stage 1	-	-	-	-	-	-	1827	1827	-	768	768	-
Stage 2	-	-	-	-	-	-	802	769	-	1872	1829	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	851	-	-	336	-	-	16	25	97	~ 15	25	407
Stage 1	-	-	-	-	-	-	98	127	-	393	409	-
Stage 2	-	-	-	-	-	-	376	409	-	92	127	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	851	-	-	336	-	-	13	24	97	~ 1	24	407
Mov Cap-2 Maneuver	-	-	-	-	-	-	13	24	-	~ 1	24	-
Stage 1	-	-	-	-	-	-	97	126	-	389	400	-
Stage 2	-	-	-	-	-	-	307	400	-	~ 6	126	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			\$ 398.6			\$ 28749.8		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	65	851	-	-	336	-	-	2
HCM Lane V/C Ratio	1.505	0.009	-	-	0.019	-	-	-57.065
HCM Control Delay (s)	\$ 398.6	9.3	-	-	15.9	-	-	\$ 28749.8
HCM Lane LOS	F	A	-	-	C	-	-	F
HCM 95th %tile Q(veh)	8.4	0	-	-	0.1	-	-	16.6

Notes			
-: Volume exceeds capacity	\$. Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Intersection												
Int Delay, s/veh	420.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	67	1554	16	35	1795	74	5	0	54	36	0	33
Future Vol, veh/h	67	1554	16	35	1795	74	5	0	54	36	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	220	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	73	1689	17	38	1951	80	5	0	59	39	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2031	0	0	1706	0	0	3929	3951	1698	3940	3919	1991
Stage 1	-	-	-	-	-	-	1844	1844	-	2067	2067	-
Stage 2	-	-	-	-	-	-	2085	2107	-	1873	1852	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	276	-	-	370	-	-	~2	3	114	~2	3	75
Stage 1	-	-	-	-	-	-	96	124	-	71	96	-
Stage 2	-	-	-	-	-	-	69	91	-	92	123	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	276	-	-	370	-	-	~1	2	114	~1	2	75
Mov Cap-2 Maneuver	-	-	-	-	-	-	~1	2	-	~1	2	-
Stage 1	-	-	-	-	-	-	71	91	-	52	86	-
Stage 2	-	-	-	-	-	-	32	82	-	~33	91	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			\$ 2847.2			\$ 19907.9		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	11	276	-	-	370	-	-	2
HCM Lane V/C Ratio	5.83	0.264	-	-	0.103	-	-	37.5
HCM Control Delay (s)	\$ 2847.2	22.7	-	-	15.8	-	-	\$ 19907.9
HCM Lane LOS	F	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	9.2	1	-	-	0.3	-	-	11.6

Notes			
-: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection												
Int Delay, s/veh	4.8											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕		↕	↕			↕		↕	↕	
Traffic Vol, veh/h	0	15	22	109	0	27	1	207	51	96	463	0
Future Vol, veh/h	0	15	22	109	0	27	1	207	51	96	463	0
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	-	-	-	100	-	-	-	-	-	365	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	16	24	118	0	29	1	225	55	104	503	0

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	826	993	252	723	966	140	503	0	0	280	0	0
Stage 1	711	711	-	255	255	-	-	-	-	-	-	-
Stage 2	115	282	-	468	711	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	263	242	745	312	251	879	1051	-	-	1272	-	-
Stage 1	388	432	-	724	693	-	-	-	-	-	-	-
Stage 2	875	674	-	542	432	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	238	222	745	267	230	879	1051	-	-	1272	-	-
Mov Cap-2 Maneuver	238	222	-	267	230	-	-	-	-	-	-	-
Stage 1	388	397	-	723	692	-	-	-	-	-	-	-
Stage 2	845	673	-	462	397	-	-	-	-	-	-	-

Approach	SE		NW		NE		SW	
HCM Control Delay, s	15.6		24.9		0		1.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	NWLn2	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1051	-	-	267	879	381	1272	-
HCM Lane V/C Ratio	0.001	-	-	0.444	0.033	0.106	0.082	-
HCM Control Delay (s)	8.4	0	-	28.8	9.2	15.6	8.1	-
HCM Lane LOS	A	A	-	D	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	2.1	0.1	0.4	0.3	-

Intersection												
Int Delay, s/veh	6											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕		↕	↕			↕		↕	↕	
Traffic Vol, veh/h	0	4	16	53	4	201	17	716	103	91	447	0
Future Vol, veh/h	0	4	16	53	4	201	17	716	103	91	447	0
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	-	-	-	100	-	-	-	-	-	365	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	4	17	58	4	218	18	778	112	99	486	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1111	1610	243	1313	1554	445	486	0	0	890	0	0
Stage 1	684	684	-	870	870	-	-	-	-	-	-	-
Stage 2	427	926	-	443	684	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	162	103	755	115	111	558	1066	-	-	751	-	-
Stage 1	402	445	-	311	365	-	-	-	-	-	-	-
Stage 2	573	343	-	561	445	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	83	86	755	95	93	558	1066	-	-	751	-	-
Mov Cap-2 Maneuver	83	86	-	95	93	-	-	-	-	-	-	-
Stage 1	388	386	-	300	353	-	-	-	-	-	-	-
Stage 2	333	331	-	470	386	-	-	-	-	-	-	-

Approach	SE		NW		NE		SW	
HCM Control Delay, s	18.2		32.2		0.3		1.8	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	NWLn2	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1066	-	-	95	508	295	751	-
HCM Lane V/C Ratio	0.017	-	-	0.606	0.439	0.074	0.132	-
HCM Control Delay (s)	8.4	0.1	-	89.2	17.5	18.2	10.5	-
HCM Lane LOS	A	A	-	F	C	C	B	-
HCM 95th %tile Q(veh)	0.1	-	-	2.9	2.2	0.2	0.5	-

Intersection												
Int Delay, s/veh	6.2											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕		↕	↕			↕		↕	↕	
Traffic Vol, veh/h	0	15	22	109	0	27	1	262	51	96	745	0
Future Vol, veh/h	0	15	22	109	0	27	1	262	51	96	745	0
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	-	-	-	100	-	-	-	-	-	365	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	16	24	118	0	29	1	285	55	104	810	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1163	1360	405	936	1333	170	810	0	0	340	0	0
Stage 1	1018	1018	-	315	315	-	-	-	-	-	-	-
Stage 2	145	342	-	621	1018	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	149	146	592	218	152	841	805	-	-	1209	-	-
Stage 1	252	311	-	668	652	-	-	-	-	-	-	-
Stage 2	840	634	-	439	311	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	134	133	592	177	139	841	805	-	-	1209	-	-
Mov Cap-2 Maneuver	134	133	-	177	139	-	-	-	-	-	-	-
Stage 1	251	284	-	667	651	-	-	-	-	-	-	-
Stage 2	809	633	-	363	284	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	22.4	49.1	0	0.9
HCM LOS	C	E		

Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	NWLn2	SELn1	SWL	SWT	SWR
Capacity (veh/h)	805	-	-	177	841	247	1209	-
HCM Lane V/C Ratio	0.001	-	-	0.669	0.035	0.163	0.086	-
HCM Control Delay (s)	9.5	0	-	58.9	9.4	22.4	8.3	-
HCM Lane LOS	A	A	-	F	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	3.9	0.1	0.6	0.3	-

Intersection												
Int Delay, s/veh	10.4											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕		↵	↵			↕		↵	↕	
Traffic Vol, veh/h	0	4	19	53	4	201	17	908	103	91	563	0
Future Vol, veh/h	0	4	19	53	4	201	17	908	103	91	563	0
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	-	-	-	100	-	-	-	-	-	365	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	4	21	58	4	218	18	987	112	99	612	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1342	1945	306	1585	1889	550	612	0	0	1099	0	0
Stage 1	810	810	-	1079	1079	-	-	-	-	-	-	-
Stage 2	532	1135	-	506	810	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	110	63	687	72	69	476	956	-	-	625	-	-
Stage 1	338	389	-	231	291	-	-	-	-	-	-	-
Stage 2	496	273	-	514	389	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	47	50	687	~ 55	55	476	956	-	-	625	-	-
Mov Cap-2 Maneuver	47	50	-	~ 55	55	-	-	-	-	-	-	-
Stage 1	321	328	-	219	276	-	-	-	-	-	-	-
Stage 2	251	259	-	414	328	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	24	71.4	0.3	1.6
HCM LOS	C	F		

Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	NWLn2	SELn1	SWL	SWT	SWR
Capacity (veh/h)	956	-	-	55	414	214	625	-
HCM Lane V/C Ratio	0.019	-	-	1.047	0.538	0.117	0.158	-
HCM Control Delay (s)	8.8	0.2	-	257.1	23.4	24	11.8	-
HCM Lane LOS	A	A	-	F	C	C	B	-
HCM 95th %tile Q(veh)	0.1	-	-	4.8	3.1	0.4	0.6	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh	5.9					
Intersection LOS	A					
Approach	SE	NW	NE	SW		
Entry Lanes	1	1	2	2		
Conflicting Circle Lanes	2	2	2	2		
Adj Approach Flow, veh/h	40	147	341	914		
Demand Flow Rate, veh/h	41	152	352	941		
Vehicles Circulating, veh/h	1063	295	123	123		
Vehicles Exiting, veh/h	1	180	981	324		
Ped Vol Crossing Leg, #/h	0	0	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	7.3	4.6	4.2	6.7		
Approach LOS	A	A	A	A		
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	41	152	165	187	442	499
Cap Entry Lane, veh/h	575	1105	1205	1279	1205	1279
Entry HV Adj Factor	0.964	0.967	0.973	0.968	0.972	0.970
Flow Entry, veh/h	40	147	160	181	429	484
Cap Entry, veh/h	555	1069	1172	1238	1171	1241
V/C Ratio	0.071	0.138	0.137	0.146	0.367	0.390
Control Delay, s/veh	7.3	4.6	4.2	4.1	6.7	6.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	1	2	2

Intersection						
Intersection Delay, s/veh	7.8					
Intersection LOS	A					
Approach	SE	NW	NE	SW		
Entry Lanes	1	1	2	2		
Conflicting Circle Lanes	2	2	2	2		
Adj Approach Flow, veh/h	25	280	1117	711		
Demand Flow Rate, veh/h	26	289	1151	732		
Vehicles Circulating, veh/h	792	1036	106	83		
Vehicles Exiting, veh/h	23	221	712	1242		
Ped Vol Crossing Leg, #/h	0	0	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	5.6	14.7	7.7	5.4		
Approach LOS	A	B	A	A		
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	26	289	541	610	344	388
Cap Entry Lane, veh/h	724	589	1224	1298	1251	1323
Entry HV Adj Factor	0.957	0.968	0.971	0.971	0.971	0.971
Flow Entry, veh/h	25	280	525	592	334	377
Cap Entry, veh/h	693	570	1189	1260	1214	1285
V/C Ratio	0.036	0.491	0.442	0.470	0.275	0.293
Control Delay, s/veh	5.6	14.7	7.6	7.7	5.5	5.4
LOS	A	B	A	A	A	A
95th %tile Queue, veh	0	3	2	3	1	1

HCM 6th Signalized Intersection Summary  
83: Cicero Rd/SR 19 & Field Dr

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	384	8	117	3	123	189	382	596	1
Future Volume (veh/h)	0	0	0	384	8	117	3	123	189	382	596	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	0	0	417	9	127	3	134	205	415	648	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	535	0	656	30	428	336	453	384	661	943	799
Arrive On Green	0.00	0.00	0.00	0.29	0.29	0.29	0.24	0.24	0.24	0.18	0.51	0.51
Sat Flow, veh/h	1243	1856	0	1767	105	1483	776	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	0	0	0	417	0	136	3	134	205	415	648	1
Grp Sat Flow(s),veh/h/ln	1243	1856	0	1767	0	1589	776	1856	1572	1767	1856	1572
Q Serve(g_s), s	0.0	0.0	0.0	10.8	0.0	3.3	0.1	2.9	5.6	8.0	13.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.8	0.0	3.3	0.1	2.9	5.6	8.0	13.0	0.0
Prop In Lane	1.00		0.00	1.00		0.93	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	535	0	656	0	458	336	453	384	661	943	799
V/C Ratio(X)	0.00	0.00	0.00	0.64	0.00	0.30	0.01	0.30	0.53	0.63	0.69	0.00
Avail Cap(c_a), veh/h	318	792	0	901	0	678	399	603	511	661	1094	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.3	0.0	13.6	14.1	15.2	16.2	9.5	9.1	6.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	0.4	0.0	0.4	1.2	1.9	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.8	0.0	1.0	0.0	1.1	1.9	2.3	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	17.3	0.0	14.0	14.1	15.5	17.3	11.4	10.6	6.0
LnGrp LOS	A	A	A	B	A	B	B	B	B	B	B	A
Approach Vol, veh/h		0			553			342			1064	
Approach Delay, s/veh		0.0			16.5			16.6			10.9	
Approach LOS					B			B			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.0	17.0		19.2		30.0		19.2				
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s	9.0	16.0		21.0		29.0		21.0				
Max Q Clear Time (g_c+I1), s	10.0	7.6		0.0		15.0		12.8				
Green Ext Time (p_c), s	0.0	0.9		0.0		3.4		1.4				























Intersection Summary

HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

























HCM 6th Signalized Intersection Summary  
83: Cicero Rd/SR 19 & Field Dr

Existing PM Peak  
12/11/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	14	3	247	46	619	9	526	541	301	247	13
Future Volume (veh/h)	5	14	3	247	46	619	9	526	541	301	247	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	15	3	268	50	673	10	572	588	327	268	14
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	65	641	128	649	47	632	396	563	477	316	894	758
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.30	0.30	0.30	0.14	0.48	0.48
Sat Flow, veh/h	725	1501	300	1384	110	1479	1088	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	5	0	18	268	0	723	10	572	588	327	268	14
Grp Sat Flow(s),veh/h/ln	725	0	1801	1384	0	1589	1088	1856	1572	1767	1856	1572
Q Serve(g_s), s	0.0	0.0	0.6	15.3	0.0	47.0	0.7	33.4	33.4	15.6	9.6	0.5
Cycle Q Clear(g_c), s	47.0	0.0	0.6	15.9	0.0	47.0	0.7	33.4	33.4	15.6	9.6	0.5
Prop In Lane	1.00		0.17	1.00		0.93	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	65	0	770	649	0	679	396	563	477	316	894	758
V/C Ratio(X)	0.08	0.00	0.02	0.41	0.00	1.06	0.03	1.02	1.23	1.03	0.30	0.02
Avail Cap(c_a), veh/h	65	0	770	649	0	679	396	563	477	316	894	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	18.2	22.8	0.0	31.5	26.9	38.3	38.3	33.4	17.3	14.9
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.4	0.0	53.1	0.0	41.8	121.4	59.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.3	4.9	0.0	27.1	0.2	21.4	28.7	10.2	3.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	0.0	18.2	23.3	0.0	84.6	26.9	80.1	159.7	93.2	17.4	14.9
LnGrp LOS	E	A	B	C	A	F	C	F	F	F	B	B
Approach Vol, veh/h		23			991			1170			609	
Approach Delay, s/veh		26.3			68.0			119.6			58.1	
Approach LOS		C			E			F			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	19.6	38.4		52.0		58.0		52.0				
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s	15.6	33.4		47.0		53.0		47.0				
Max Q Clear Time (g_c+I1), s	17.6	35.4		49.0		11.6		49.0				
Green Ext Time (p_c), s	0.0	0.0		0.0		1.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				87.1								
HCM 6th LOS				F								























HCM 6th Signalized Intersection Summary  
83: Cicero Rd/SR 19 & Field Dr

Existing AM Peak  
Mitigated - Final

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	384	8	117	3	123	189	382	596	1
Future Volume (veh/h)	0	0	0	384	8	117	3	123	189	382	596	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	0	0	417	9	127	3	134	205	415	648	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	3	3	0	522	11	803	311	419	829	677	947	803
Arrive On Green	0.00	0.00	0.00	0.30	0.30	0.30	0.23	0.23	0.23	0.21	0.51	0.51
Sat Flow, veh/h	1767	1856	0	1732	37	1572	776	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	0	0	0	426	0	127	3	134	205	415	648	1
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1769	0	1572	776	1856	1572	1767	1856	1572
Q Serve(g_s), s	0.0	0.0	0.0	11.8	0.0	2.3	0.2	3.2	3.8	8.6	14.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	11.8	0.0	2.3	0.2	3.2	3.8	8.6	14.0	0.0
Prop In Lane	1.00		0.00	0.98		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	3	3	0	533	0	803	311	419	829	677	947	803
V/C Ratio(X)	0.00	0.00	0.00	0.80	0.00	0.16	0.01	0.32	0.25	0.61	0.68	0.00
Avail Cap(c_a), veh/h	499	524	0	799	0	1040	385	597	980	802	1257	1065
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	17.1	0.0	6.9	16.0	17.2	6.8	10.1	9.8	6.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.5	0.0	0.1	0.0	0.4	0.2	1.0	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	4.6	0.0	0.6	0.0	1.3	2.1	2.5	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	20.6	0.0	7.0	16.0	17.6	7.0	11.1	10.8	6.4
LnGrp LOS				C		A	B	B	A	B	B	A
Approach Vol, veh/h		0			553			342			1064	
Approach Delay, s/veh		0.0			17.4			11.2			10.9	
Approach LOS					B			B			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	15.1	17.0		0.0		32.1		21.0				
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s	14.9	17.1		15.0		36.0		24.0				
Max Q Clear Time (g_c+I1), s	10.6	5.8		0.0		16.0		13.8				
Green Ext Time (p_c), s	0.6	1.1		0.0		3.9		2.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				12.8								
HCM 6th LOS				B								























HCM 6th Signalized Intersection Summary  
83: Cicero Rd/SR 19 & Field Dr

Existing PM Peak  
Mitigated - Final

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	14	3	247	46	619	9	526	541	301	247	13
Future Volume (veh/h)	5	14	3	247	46	619	9	526	541	301	247	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	15	3	268	50	673	10	572	588	327	268	14
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	102	87	17	434	81	690	403	556	926	342	914	775
Arrive On Green	0.06	0.06	0.06	0.29	0.29	0.29	0.30	0.30	0.30	0.15	0.49	0.49
Sat Flow, veh/h	1767	1501	300	1501	280	1572	1088	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	5	0	18	318	0	673	10	572	588	327	268	14
Grp Sat Flow(s),veh/h/ln	1767	0	1801	1781	0	1572	1088	1856	1572	1767	1856	1572
Q Serve(g_s), s	0.2	0.0	0.9	14.4	0.0	27.0	0.6	28.0	22.9	13.0	8.0	0.4
Cycle Q Clear(g_c), s	0.2	0.0	0.9	14.4	0.0	27.0	0.6	28.0	22.9	13.0	8.0	0.4
Prop In Lane	1.00		0.17	0.84		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	0	104	515	0	690	403	556	926	342	914	775
V/C Ratio(X)	0.05	0.00	0.17	0.62	0.00	0.97	0.02	1.03	0.63	0.96	0.29	0.02
Avail Cap(c_a), veh/h	227	0	231	515	0	690	403	556	926	342	914	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	0.0	41.9	28.7	0.0	25.7	23.1	32.7	12.6	26.1	14.1	12.1
Incr Delay (d2), s/veh	0.2	0.0	0.8	2.2	0.0	28.0	0.0	45.6	1.4	37.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.4	6.3	0.0	18.8	0.2	19.2	13.9	8.5	3.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.8	0.0	42.7	31.0	0.0	53.7	23.1	78.3	14.0	63.2	14.2	12.1
LnGrp LOS	D		D	C		D	C	F	B	E	B	B
Approach Vol, veh/h		23			991			1170			609	
Approach Delay, s/veh		42.5			46.4			45.5			40.5	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	18.0	33.0		10.4		51.0		32.0				
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s	14.0	28.0		12.0		46.0		27.0				
Max Q Clear Time (g_c+I1), s	15.0	30.0		2.9		10.0		29.0				
Green Ext Time (p_c), s	0.0	0.0		0.0		1.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				44.7								
HCM 6th LOS				D								























HCM 6th Signalized Intersection Summary  
83: Cicero Rd/SR 19 & Field Dr

Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	387	8	135	3	133	189	718	731	1
Future Volume (veh/h)	0	0	0	387	8	135	3	133	189	718	731	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	0	0	421	9	147	3	145	205	780	795	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	74	2	0	463	24	392	158	230	607	829	1177	998
Arrive On Green	0.00	0.00	0.00	0.26	0.26	0.26	0.12	0.12	0.12	0.47	0.63	0.63
Sat Flow, veh/h	1221	1856	0	1767	92	1495	677	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	0	0	0	421	0	156	3	145	205	780	795	1
Grp Sat Flow(s),veh/h/ln	1221	1856	0	1767	0	1586	677	1856	1572	1767	1856	1572
Q Serve(g_s), s	0.0	0.0	0.0	22.3	0.0	7.8	0.4	7.2	8.9	40.6	26.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	22.3	0.0	7.8	0.4	7.2	8.9	40.6	26.5	0.0
Prop In Lane	1.00		0.00	1.00		0.94	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	2	0	463	0	416	158	230	607	829	1177	998
V/C Ratio(X)	0.00	0.00	0.00	0.91	0.00	0.38	0.02	0.63	0.34	0.94	0.68	0.00
Avail Cap(c_a), veh/h	327	288	0	640	0	903	186	307	672	1188	1631	1383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	34.6	0.0	29.2	37.2	40.2	20.9	24.4	11.3	6.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	13.6	0.0	0.6	0.0	2.8	0.3	11.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	11.0	0.0	3.0	0.1	3.4	3.2	17.5	8.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	48.1	0.0	29.8	37.3	43.0	21.3	35.6	12.0	6.5
LnGrp LOS	A	A	A	D	A	C	D	D	C	D	B	A
Approach Vol, veh/h		0			577			353			1576	
Approach Delay, s/veh		0.0			43.1			30.4			23.7	
Approach LOS					D			C			C	
Timer - Assigned Phs	1	2	3	4		6		8				
Phs Duration (G+Y+Rc), s	49.3	17.0	30.3	0.0		66.3		30.3				
Change Period (Y+Rc), s	4.0	5.0	5.0	5.0		5.0		5.0				
Max Green Setting (Gmax), s	65.0	16.0	35.0	15.0		85.0		55.0				
Max Q Clear Time (g_c+I1), s	42.6	10.9	24.3	0.0		28.5		9.8				
Green Ext Time (p_c), s	2.8	0.7	1.0	0.0		6.3		1.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				29.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
83: Cicero Rd/SR 19 & Field Dr

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	14	3	250	46	999	9	579	543	352	264	13
Future Volume (veh/h)	5	14	3	250	46	999	9	579	543	352	264	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	15	3	272	50	1086	10	629	590	383	287	14
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	48	428	86	298	34	737	326	482	674	283	829	702
Arrive On Green	0.28	0.28	0.28	0.17	0.49	0.49	0.26	0.26	0.26	0.16	0.45	0.45
Sat Flow, veh/h	491	1501	300	1767	70	1513	1070	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	5	0	18	272	0	1136	10	629	590	383	287	14
Grp Sat Flow(s),veh/h/ln	491	0	1801	1767	0	1583	1070	1856	1572	1767	1856	1572
Q Serve(g_s), s	0.0	0.0	1.1	22.7	0.0	73.0	1.0	39.0	39.0	24.0	15.2	0.7
Cycle Q Clear(g_c), s	42.7	0.0	1.1	22.7	0.0	73.0	1.0	39.0	39.0	24.0	15.2	0.7
Prop In Lane	1.00		0.17	1.00		0.96	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	0	513	298	0	770	326	482	674	283	829	702
V/C Ratio(X)	0.10	0.00	0.04	0.91	0.00	1.47	0.03	1.30	0.88	1.35	0.35	0.02
Avail Cap(c_a), veh/h	48	0	513	424	0	770	326	482	674	283	829	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.0	0.0	38.8	61.3	0.0	38.5	41.5	55.5	39.2	63.0	27.2	23.2
Incr Delay (d2), s/veh	0.9	0.0	0.0	18.8	0.0	220.5	0.0	151.2	12.4	181.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.5	11.7	0.0	74.6	0.3	38.5	21.9	24.8	6.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	0.0	38.8	80.0	0.0	259.0	41.5	206.7	51.6	244.0	27.4	23.2
LnGrp LOS	E	A	D	F	A	F	D	F	D	F	C	C
Approach Vol, veh/h		23			1408			1229			684	
Approach Delay, s/veh		46.9			224.5			130.9			148.6	
Approach LOS		D			F			F			F	
Timer - Assigned Phs	1	2	3	4	6	8						
Phs Duration (G+Y+Rc), s	28.0	44.0	30.3	47.7	72.0	78.0						
Change Period (Y+Rc), s	4.0	5.0	5.0	5.0	5.0	5.0						
Max Green Setting (Gmax), s	24.0	39.0	36.0	32.0	67.0	73.0						
Max Q Clear Time (g_c+I1), s	26.0	41.0	24.7	44.7	17.2	75.0						
Green Ext Time (p_c), s	0.0	0.0	0.6	0.0	1.7	0.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	173.3											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
84: 10th St & Field Dr

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	286	222	4	137	17	38	39	14	17	206	360
Future Volume (veh/h)	105	286	222	4	137	17	38	39	14	17	206	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	114	311	241	4	149	18	41	42	15	18	224	391
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	423	456	386	238	262	222	437	655	555	631	599	508
Arrive On Green	0.11	0.25	0.25	0.01	0.14	0.14	0.06	0.35	0.35	0.03	0.32	0.32
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	114	311	241	4	149	18	41	42	15	18	224	391
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	2.4	7.5	6.8	0.1	3.7	0.5	0.7	0.7	0.3	0.3	4.6	11.1
Cycle Q Clear(g_c), s	2.4	7.5	6.8	0.1	3.7	0.5	0.7	0.7	0.3	0.3	4.6	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	423	456	386	238	262	222	437	655	555	631	599	508
V/C Ratio(X)	0.27	0.68	0.62	0.02	0.57	0.08	0.09	0.06	0.03	0.03	0.37	0.77
Avail Cap(c_a), veh/h	475	636	539	474	636	539	579	655	555	826	599	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	16.9	16.7	18.1	19.9	18.5	9.9	10.6	10.5	10.5	12.9	15.1
Incr Delay (d2), s/veh	0.3	1.8	1.7	0.0	1.9	0.2	0.1	0.2	0.1	0.0	1.8	10.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.9	2.3	0.0	1.6	0.2	0.2	0.3	0.1	0.1	1.9	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	18.8	18.3	18.1	21.8	18.6	10.0	10.8	10.6	10.5	14.7	25.9
LnGrp LOS	B	B	B	B	C	B	A	B	B	B	B	C
Approach Vol, veh/h	666			171			98			633		
Approach Delay, s/veh	17.8			21.4			10.4			21.5		
Approach LOS	B			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	22.5	4.4	17.2	7.0	21.0	9.5	12.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	16.0	7.0	17.0	7.0	16.0	7.0	17.0					
Max Q Clear Time (g_c+1), s	2.7	2.1	9.5	2.7	13.1	4.4	5.7					
Green Ext Time (p_c), s	0.0	0.1	0.0	1.6	0.0	0.8	0.1	0.6				

Intersection Summary

HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary  
84: 10th St & Field Dr

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	416	413	111	18	473	36	339	220	40	37	77	183
Future Volume (veh/h)	416	413	111	18	473	36	339	220	40	37	77	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	452	449	121	20	514	39	368	239	43	40	84	199
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	485	893	757	384	551	467	417	434	368	301	337	285
Arrive On Green	0.21	0.48	0.48	0.03	0.30	0.30	0.10	0.23	0.23	0.05	0.18	0.18
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	452	449	121	20	514	39	368	239	43	40	84	199
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	16.7	14.6	3.8	0.7	23.7	1.6	9.0	10.0	1.9	1.6	3.4	10.5
Cycle Q Clear(g_c), s	16.7	14.6	3.8	0.7	23.7	1.6	9.0	10.0	1.9	1.6	3.4	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	485	893	757	384	551	467	417	434	368	301	337	285
V/C Ratio(X)	0.93	0.50	0.16	0.05	0.93	0.08	0.88	0.55	0.12	0.13	0.25	0.70
Avail Cap(c_a), veh/h	506	893	757	470	568	482	417	434	368	354	337	285
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	15.6	12.8	20.1	30.1	22.3	30.4	29.7	26.6	26.8	30.9	33.8
Incr Delay (d2), s/veh	23.7	0.4	0.1	0.1	22.1	0.1	19.3	5.0	0.6	0.2	1.8	13.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	5.8	1.3	0.3	13.6	0.6	5.6	5.0	0.8	0.7	1.7	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	16.1	12.9	20.2	52.2	22.4	49.6	34.6	27.2	27.0	32.7	47.0
LnGrp LOS	D	B	B	C	D	C	D	C	C	C	C	D
Approach Vol, veh/h	1022			573			650			323		
Approach Delay, s/veh	28.9			49.1			42.6			40.8		
Approach LOS	C			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	25.6	6.7	47.4	13.0	21.0	23.0	31.2				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	18.0	7.0	40.0	9.0	16.0	20.0	27.0					
Max Q Clear Time (g_c+1), s	12.0	2.7	16.6	11.0	12.5	18.7	25.7					
Green Ext Time (p_c), s	0.0	0.7	0.0	3.2	0.0	0.4	0.2	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	38.4											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary  
84: 10th St & Field Dr

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	622	222	4	154	17	38	39	14	17	206	364
Future Volume (veh/h)	105	622	222	4	154	17	38	39	14	17	206	364
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	114	676	241	4	167	18	41	42	15	18	224	396
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	168	782	752	180	620	573	100	483	421	478	434	517
Arrive On Green	0.09	0.42	0.42	0.01	0.33	0.33	0.06	0.26	0.26	0.03	0.23	0.23
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	114	676	241	4	167	18	41	42	15	18	224	396
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	4.0	21.3	6.1	0.1	4.2	0.5	1.4	1.1	0.5	0.5	6.7	14.5
Cycle Q Clear(g_c), s	4.0	21.3	6.1	0.1	4.2	0.5	1.4	1.1	0.5	0.5	6.7	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	168	782	752	180	620	573	100	483	421	478	434	517
V/C Ratio(X)	0.68	0.86	0.32	0.02	0.27	0.03	0.41	0.09	0.04	0.04	0.52	0.77
Avail Cap(c_a), veh/h	358	955	898	359	781	709	193	483	421	617	434	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	16.9	10.3	15.9	15.6	13.1	29.2	17.9	17.4	17.6	21.4	19.3
Incr Delay (d2), s/veh	4.8	7.1	0.2	0.0	0.2	0.0	2.7	0.1	0.0	0.0	1.1	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	9.2	1.9	0.0	1.7	0.2	0.7	0.5	0.2	0.2	2.8	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	24.0	10.6	15.9	15.9	13.1	31.9	18.0	17.4	17.6	22.5	26.1
LnGrp LOS	C	C	B	B	B	B	C	B	B	B	C	C
Approach Vol, veh/h		1031			189			98			638	
Approach Delay, s/veh		21.8			15.6			23.7			24.6	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	21.7	4.5	32.0	7.6	20.0	10.1	26.4				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	7.0	33.0	7.0	15.0	13.0	27.0					
Max Q Clear Time (g_c+1), s	3.1	2.1	23.3	3.4	16.5	6.0	6.2					
Green Ext Time (p_c), s	0.0	0.1	0.0	3.8	0.0	0.0	0.1	0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											22.2	
HCM 6th LOS											C	



HCM 6th Signalized Intersection Summary  
84: 10th St & Field Dr

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	418	464	111	18	853	36	339	220	40	37	77	186
Future Volume (veh/h)	418	464	111	18	853	36	339	220	40	37	77	186
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	454	504	121	20	927	39	368	239	43	40	84	202
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	365	1064	1164	407	730	619	295	449	422	238	210	503
Arrive On Green	0.21	0.57	0.57	0.03	0.39	0.39	0.17	0.24	0.24	0.04	0.11	0.11
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	454	504	121	20	927	39	368	239	43	40	84	202
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	31.0	23.9	3.2	1.0	59.0	2.3	25.0	16.8	3.1	2.9	6.3	15.0
Cycle Q Clear(g_c), s	31.0	23.9	3.2	1.0	59.0	2.3	25.0	16.8	3.1	2.9	6.3	15.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	365	1064	1164	407	730	619	295	449	422	238	210	503
V/C Ratio(X)	1.24	0.47	0.10	0.05	1.27	0.06	1.25	0.53	0.10	0.17	0.40	0.40
Avail Cap(c_a), veh/h	365	1064	1164	443	730	619	295	449	422	254	210	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	18.7	5.5	25.5	45.5	28.3	62.5	49.4	41.3	55.3	61.8	39.8
Incr Delay (d2), s/veh	130.5	0.3	0.0	0.0	132.2	0.0	137.3	1.2	0.1	0.3	1.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	10.2	1.0	0.4	53.7	0.9	22.5	8.0	1.2	1.3	3.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	190.0	19.0	5.5	25.6	177.7	28.3	199.8	50.6	41.4	55.6	63.0	40.3
LnGrp LOS	F	B	A	C	F	C	F	D	D	E	E	D
Approach Vol, veh/h		1079			986			650			326	
Approach Delay, s/veh		89.5			168.7			134.5			48.0	
Approach LOS		F			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	41.3	8.0	91.0	29.0	22.0	35.0	64.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	35.0	7.0	83.0	25.0	17.0	31.0	59.0					
Max Q Clear Time (g_c+1), s	18.8	3.0	25.9	27.0	17.0	33.0	61.0					
Green Ext Time (p_c), s	0.0	1.3	0.0	4.0	0.0	0.0	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			120.3									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
84: 10th St & Field Dr

Future AM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑	↖	↖↗	↑	↖	↖	↑	↖
Traffic Volume (veh/h)	105	622	222	4	154	17	38	39	14	17	206	364
Future Volume (veh/h)	105	622	222	4	154	17	38	39	14	17	206	364
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	114	676	241	4	167	18	41	42	15	18	224	396
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	325	782	752	180	620	573	194	483	421	478	434	517
Arrive On Green	0.09	0.42	0.42	0.01	0.33	0.33	0.06	0.26	0.26	0.03	0.23	0.23
Sat Flow, veh/h	3428	1856	1572	1767	1856	1572	3428	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	114	676	241	4	167	18	41	42	15	18	224	396
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1767	1856	1572	1714	1856	1572	1767	1856	1572
Q Serve(g_s), s	2.0	21.3	6.1	0.1	4.2	0.5	0.7	1.1	0.5	0.5	6.7	14.5
Cycle Q Clear(g_c), s	2.0	21.3	6.1	0.1	4.2	0.5	0.7	1.1	0.5	0.5	6.7	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	782	752	180	620	573	194	483	421	478	434	517
V/C Ratio(X)	0.35	0.86	0.32	0.02	0.27	0.03	0.21	0.09	0.04	0.04	0.52	0.77
Avail Cap(c_a), veh/h	695	955	898	359	781	709	374	483	421	617	434	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	16.9	10.3	15.9	15.6	13.1	28.9	17.9	17.4	17.6	21.4	19.3
Incr Delay (d2), s/veh	0.6	7.1	0.2	0.0	0.2	0.0	0.5	0.1	0.0	0.0	1.1	6.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	9.2	1.9	0.0	1.7	0.2	0.3	0.5	0.2	0.2	2.8	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.8	24.0	10.6	15.9	15.9	13.1	29.4	18.0	17.4	17.6	22.5	26.1
LnGrp LOS	C	C	B	B	B	B	C	B	B	B	C	C
Approach Vol, veh/h		1031			189			98			638	
Approach Delay, s/veh		21.3			15.6			22.7			24.6	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	21.7	4.5	32.0	7.6	20.0	10.1	26.4				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	15.0	7.0	33.0	7.0	15.0	13.0	27.0				
Max Q Clear Time (g_c+1/2), s	12.5	3.1	2.1	23.3	2.7	16.5	4.0	6.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	3.8	0.0	0.0	0.2	0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											21.9	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
84: 10th St & Field Dr

Future PM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖	↑	↖	↖↗	↑	↖	↖	↑	↖
Traffic Volume (veh/h)	418	464	111	18	853	36	339	220	40	37	77	186
Future Volume (veh/h)	418	464	111	18	853	36	339	220	40	37	77	186
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	454	504	121	20	927	39	368	239	43	40	84	202
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	462	1104	1130	463	906	768	425	338	331	203	188	371
Arrive On Green	0.13	0.59	0.59	0.03	0.49	0.49	0.12	0.18	0.18	0.04	0.10	0.10
Sat Flow, veh/h	3428	1856	1572	1767	1856	1572	3428	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	454	504	121	20	927	39	368	239	43	40	84	202
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1767	1856	1572	1714	1856	1572	1767	1856	1572
Q Serve(g_s), s	15.7	17.9	2.8	0.7	58.0	1.5	12.5	14.4	2.6	2.4	5.1	12.0
Cycle Q Clear(g_c), s	15.7	17.9	2.8	0.7	58.0	1.5	12.5	14.4	2.6	2.4	5.1	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	462	1104	1130	463	906	768	425	338	331	203	188	371
V/C Ratio(X)	0.98	0.46	0.11	0.04	1.02	0.05	0.87	0.71	0.13	0.20	0.45	0.54
Avail Cap(c_a), veh/h	462	1104	1130	517	906	768	462	338	331	231	188	371
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	13.4	5.1	14.1	30.4	15.9	51.0	45.6	38.1	44.6	50.2	39.8
Incr Delay (d2), s/veh	37.2	0.3	0.0	0.0	35.8	0.0	14.9	6.7	0.2	0.5	1.7	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.2	0.8	0.3	33.8	0.6	6.2	7.2	1.0	1.1	2.4	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	88.5	13.7	5.1	14.2	66.1	16.0	65.9	52.3	38.2	45.0	51.9	41.4
LnGrp LOS	F	B	A	B	F	B	E	D	D	D	D	D
Approach Vol, veh/h		1079			986			650			326	
Approach Delay, s/veh		44.2			63.1			59.0			44.6	
Approach LOS		D			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	26.6	7.4	75.6	18.7	17.0	20.0	63.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	21.0	7.0	67.0	16.0	12.0	16.0	58.0					
Max Q Clear Time (g_c+14), s	16.4	2.7	19.9	14.5	14.0	17.7	60.0					
Green Ext Time (p_c), s	0.0	0.6	0.0	3.9	0.2	0.0	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			53.5									
HCM 6th LOS			D									

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	303	22	5	134	7	29
Future Vol, veh/h	303	22	5	134	7	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	329	24	5	146	8	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	353	0	497
Stage 1	-	-	-	-	341
Stage 2	-	-	-	-	156
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	1200	-	531
Stage 1	-	-	-	-	718
Stage 2	-	-	-	-	870
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1200	-	528
Mov Cap-2 Maneuver	-	-	-	-	528
Stage 1	-	-	-	-	718
Stage 2	-	-	-	-	866

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	658	-	-	1200	-
HCM Lane V/C Ratio	0.059	-	-	0.005	-
HCM Control Delay (s)	10.8	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	503	33	54	445	80	40
Future Vol, veh/h	503	33	54	445	80	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	547	36	59	484	87	43

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	583	0	1167 565
Stage 1	-	-	-	-	565 -
Stage 2	-	-	-	-	602 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	986	-	213 522
Stage 1	-	-	-	-	567 -
Stage 2	-	-	-	-	545 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	986	-	196 522
Mov Cap-2 Maneuver	-	-	-	-	196 -
Stage 1	-	-	-	-	567 -
Stage 2	-	-	-	-	500 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1	34.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	248	-	-	986	-
HCM Lane V/C Ratio	0.526	-	-	0.06	-
HCM Control Delay (s)	34.6	-	-	8.9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	2.8	-	-	0.2	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	639	22	5	151	7	29
Future Vol, veh/h	639	22	5	151	7	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	695	24	5	164	8	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	719	0	881
Stage 1	-	-	-	-	707
Stage 2	-	-	-	-	174
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	878	-	316
Stage 1	-	-	-	-	487
Stage 2	-	-	-	-	854
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	878	-	314
Mov Cap-2 Maneuver	-	-	-	-	314
Stage 1	-	-	-	-	487
Stage 2	-	-	-	-	849

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	404	-	-	878	-
HCM Lane V/C Ratio	0.097	-	-	0.006	-
HCM Control Delay (s)	14.9	-	-	9.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	11.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	554	33	54	825	80	40
Future Vol, veh/h	554	33	54	825	80	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	602	36	59	897	87	43

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	638	0	1635
Stage 1	-	-	-	-	620
Stage 2	-	-	-	-	1015
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	941	-	110
Stage 1	-	-	-	-	535
Stage 2	-	-	-	-	348
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	941	-	96
Mov Cap-2 Maneuver	-	-	-	-	96
Stage 1	-	-	-	-	535
Stage 2	-	-	-	-	305

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	142.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	131	-	-	941	-
HCM Lane V/C Ratio	0.996	-	-	0.062	-
HCM Control Delay (s)	142.5	-	-	9.1	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	7	-	-	0.2	-

Intersection				
Intersection Delay, s/veh	5.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	243	401	75	192
Demand Flow Rate, veh/h	251	413	77	198
Vehicles Circulating, veh/h	255	92	170	416
Vehicles Exiting, veh/h	359	155	336	89
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.7	6.0	3.7	6.4
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	251	413	77	198
Cap Entry Lane, veh/h	1064	1256	1160	903
Entry HV Adj Factor	0.969	0.971	0.977	0.969
Flow Entry, veh/h	243	401	75	192
Cap Entry, veh/h	1031	1219	1133	875
V/C Ratio	0.236	0.329	0.066	0.219
Control Delay, s/veh	5.7	6.0	3.7	6.4
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	1



Intersection				
Intersection Delay, s/veh	11.6			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	457	565	425	192
Demand Flow Rate, veh/h	471	581	438	198
Vehicles Circulating, veh/h	188	496	367	595
Vehicles Exiting, veh/h	605	309	292	482
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.6	17.6	9.5	8.0
Approach LOS	A	C	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	471	581	438	198
Cap Entry Lane, veh/h	1139	832	949	752
Entry HV Adj Factor	0.970	0.972	0.971	0.968
Flow Entry, veh/h	457	565	425	192
Cap Entry, veh/h	1105	809	921	728
V/C Ratio	0.413	0.698	0.462	0.263
Control Delay, s/veh	7.6	17.6	9.5	8.0
LOS	A	C	A	A
95th %tile Queue, veh	2	6	2	1

Intersection				
Intersection Delay, s/veh	8.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	608	419	75	192
Demand Flow Rate, veh/h	627	432	77	198
Vehicles Circulating, veh/h	255	92	546	435
Vehicles Exiting, veh/h	378	531	336	89
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.3	6.2	5.7	6.5
Approach LOS	B	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	627	432	77	198
Cap Entry Lane, veh/h	1064	1256	791	885
Entry HV Adj Factor	0.970	0.971	0.977	0.969
Flow Entry, veh/h	608	419	75	192
Cap Entry, veh/h	1032	1219	772	858
V/C Ratio	0.589	0.344	0.097	0.224
Control Delay, s/veh	11.3	6.2	5.7	6.5
LOS	B	A	A	A
95th %tile Queue, veh	4	2	0	1

Intersection				
Intersection Delay, s/veh	63.5			
Intersection LOS	F			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	513	978	425	192
Demand Flow Rate, veh/h	529	1007	438	198
Vehicles Circulating, veh/h	188	496	425	1021
Vehicles Exiting, veh/h	1031	367	292	482
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.4	125.1	10.5	14.8
Approach LOS	A	F	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	529	1007	438	198
Cap Entry Lane, veh/h	1139	832	895	487
Entry HV Adj Factor	0.970	0.972	0.971	0.968
Flow Entry, veh/h	513	978	425	192
Cap Entry, veh/h	1105	808	868	471
V/C Ratio	0.464	1.210	0.490	0.406
Control Delay, s/veh	8.4	125.1	10.5	14.8
LOS	A	F	B	B
95th %tile Queue, veh	3	33	3	2

Intersection					
Intersection Delay, s/veh	8.3				
Intersection LOS	A				
Approach	EB	WB		NB	SB
Entry Lanes	1	2		1	1
Conflicting Circle Lanes	1	1		1	1
Adj Approach Flow, veh/h	608	419		75	192
Demand Flow Rate, veh/h	627	432		77	198
Vehicles Circulating, veh/h	255	92		546	435
Vehicles Exiting, veh/h	378	531		336	89
Ped Vol Crossing Leg, #/h	0	0		0	0
Ped Cap Adj	1.000	1.000		1.000	1.000
Approach Delay, s/veh	11.3	5.3		5.7	6.5
Approach LOS	B	A		A	A
Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.910	0.090	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	627	393	39	77	198
Cap Entry Lane, veh/h	1064	1306	1306	791	885
Entry HV Adj Factor	0.970	0.970	0.974	0.977	0.969
Flow Entry, veh/h	608	381	38	75	192
Cap Entry, veh/h	1032	1267	1273	772	858
V/C Ratio	0.589	0.301	0.030	0.097	0.224
Control Delay, s/veh	11.3	5.6	3.1	5.7	6.5
LOS	B	A	A	A	A
95th %tile Queue, veh	4	1	0	0	1

Intersection					
Intersection Delay, s/veh	26.2				
Intersection LOS	D				
Approach	EB	WB		NB	SB
Entry Lanes	1	2		1	1
Conflicting Circle Lanes	1	1		1	1
Adj Approach Flow, veh/h	513	978		425	192
Demand Flow Rate, veh/h	529	1007		438	198
Vehicles Circulating, veh/h	188	496		425	1021
Vehicles Exiting, veh/h	1031	367		292	482
Ped Vol Crossing Leg, #/h	0	0		0	0
Ped Cap Adj	1.000	1.000		1.000	1.000
Approach Delay, s/veh	8.4	44.6		10.5	14.8
Approach LOS	A	E		B	B
Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.889	0.111	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	529	895	112	438	198
Cap Entry Lane, veh/h	1139	904	904	895	487
Entry HV Adj Factor	0.970	0.971	0.973	0.971	0.968
Flow Entry, veh/h	513	869	109	425	192
Cap Entry, veh/h	1105	878	880	868	471
V/C Ratio	0.464	0.990	0.124	0.490	0.406
Control Delay, s/veh	8.4	49.5	5.3	10.5	14.8
LOS	A	E	A	B	B
95th %tile Queue, veh	3	18	0	3	2

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↖	↕	↗	↖	↕	↗
Traffic Vol, veh/h	7	20	93	2	33	1	189	370	0	14	1259	104
Future Vol, veh/h	7	20	93	2	33	1	189	370	0	14	1259	104
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	-	-	25	-	-	25	580	-	640	470	-	680
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	22	101	2	36	1	205	402	0	15	1368	113

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	2027	2210	684	1537	2323	201	1481	0	0	402	0	0
Stage 1	1398	1398	-	812	812	-	-	-	-	-	-	-
Stage 2	629	812	-	725	1511	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	33	43	389	78	36	803	445	-	-	1146	-	-
Stage 1	147	204	-	337	388	-	-	-	-	-	-	-
Stage 2	434	388	-	380	180	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	34	23	389	31	~ 19	803	445	-	-	1146	-	-
Mov Cap-2 Maneuver	62	101	-	38	~ -38	-	-	-	-	-	-	-
Stage 1	79	201	-	182	209	-	-	-	-	-	-	-
Stage 2	194	209	-	248	178	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.4		6.7	0.1
HCM LOS	D	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	445	-	-	87	389	+	803	1146	-	-
HCM Lane V/C Ratio	0.462	-	-	0.337	0.26	-	0.001	0.013	-	-
HCM Control Delay (s)	19.8	-	-	66.1	17.5	-	9.5	8.2	-	-
HCM Lane LOS	C	-	-	F	C	-	A	A	-	-
HCM 95th %tile Q(veh)	2.4	-	-	1.3	1	-	0	0	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↕	↗	↗	↕↕	↗
Traffic Vol, veh/h	16	57	190	0	57	6	319	1305	8	9	685	53
Future Vol, veh/h	16	57	190	0	57	6	319	1305	8	9	685	53
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	-	-	25	-	-	25	580	-	640	470	-	680
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	62	207	0	62	7	347	1418	9	10	745	58

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2199	2886	373	2536	2935	709	803	0	0	1427	0	0
Stage 1	765	765	-	2112	2112	-	-	-	-	-	-	-
Stage 2	1434	2121	-	424	823	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	25	~ 16	622	13	~ 15	374	810	-	-	467	-	-
Stage 1	360	408	-	52	89	-	-	-	-	-	-	-
Stage 2	139	88	-	576	384	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 9	622	-	~ 8	374	810	-	-	467	-	-
Mov Cap-2 Maneuver	~ -11	~ 34	-	~ -265	~ 20	-	-	-	-	-	-	-
Stage 1	206	399	-	30	~ 51	-	-	-	-	-	-	-
Stage 2	-	~ 50	-	318	376	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					2.5		0.2	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	810	-	-	-	622	-	374	467	-	-
HCM Lane V/C Ratio	0.428	-	-	-	0.332	-	0.017	0.021	-	-
HCM Control Delay (s)	12.7	-	-	-	13.6	-	14.8	12.9	-	-
HCM Lane LOS	B	-	-	-	B	-	B	B	-	-
HCM 95th %tile Q(veh)	2.2	-	-	-	1.5	-	0.1	0.1	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	66.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↕	↗	↗	↕↕	↗
Traffic Vol, veh/h	7	35	414	107	35	10	204	551	77	27	1758	104
Future Vol, veh/h	7	35	414	107	35	10	204	551	77	27	1758	104
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	-	-	25	-	-	25	580	-	640	470	-	680
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	38	450	116	38	11	222	599	84	29	1911	113

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2732	3096	956	2076	3125	300	2024	0	0	683	0	0
Stage 1	1969	1969	-	1043	1043	-	-	-	-	-	-	-
Stage 2	763	1127	-	1033	2082	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	9	~ 11	~ 257	~ 31	~ 11	693	273	-	-	899	-	-
Stage 1	64	106	-	243	302	-	-	-	-	-	-	-
Stage 2	361	276	-	247	93	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 2	~ 2	~ 257	-	~ 2	693	273	-	-	899	-	-
Mov Cap-2 Maneuver	-	~ 18	-	~ 52	84	-	-	-	-	-	-	-
Stage 1	12	103	-	~ 45	56	-	-	-	-	-	-	-
Stage 2	21	52	-	-	90	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s\$	456.3		14	0.1
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	273	-	-	18	257	-	693	899	-	-
HCM Lane V/C Ratio	0.812	-	-	2.536	1.751	-	0.016	0.033	-	-
HCM Control Delay (s)	57.2	-	-	\$ 1140.3\$	386.9	-	10.3	9.1	-	-
HCM Lane LOS	F	-	-	F	F	-	B	A	-	-
HCM 95th %tile Q(veh)	6.5	-	-	6.2	29.8	-	0	0.1	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection												
Int Delay, s/veh	36											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕↕	↕	↕	↕↕	↕
Traffic Vol, veh/h	16	64	234	106	72	22	684	2054	226	17	1186	53
Future Vol, veh/h	16	64	234	106	72	22	684	2054	226	17	1186	53
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	-	-	25	-	-	25	580	-	640	470	-	680
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	70	254	115	78	24	743	2233	246	18	1289	58

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	3967	5290	645	4435	5102	1117	1347	0	0	2479	0	0
Stage 1	1325	1325	-	3719	3719	-	-	-	-	-	-	-
Stage 2	2642	3965	-	716	1383	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 1	0	413	0	0	200	~ 502	-	-	180	-	-
Stage 1	163	221	-	~ 4	~ 12	-	-	-	-	-	-	-
Stage 2	23	~ 9	-	385	207	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	0	413	-	0	200	~ 502	-	-	180	-	-
Mov Cap-2 Maneuver	~ -19	~ -18	-	~ 4	0	-	-	-	-	-	-	-
Stage 1	163	199	-	~ 4	0	-	-	-	-	-	-	-
Stage 2	-	0	-	~ 87	186	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			57.4	0.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	~ 502	-	-	-	413	-	200	180	-	-
HCM Lane V/C Ratio	1.481	-	-	-	0.616	-	0.12	0.103	-	-
HCM Control Delay (s)	248.8	-	-	-	26.7	-	25.4	27.3	-	-
HCM Lane LOS	F	-	-	-	D	-	D	D	-	-
HCM 95th %tile Q(veh)	37.6	-	-	-	4	-	0.4	0.3	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	2	32	22	167	284	11
Future Vol, veh/h	2	32	22	167	284	11
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	35	24	182	309	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	545	315	321	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	230	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	498	723	1233	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	487	723	1233	-	-	-
Mov Cap-2 Maneuver	487	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1233	-	703	-	-
HCM Lane V/C Ratio	0.019	-	0.053	-	-
HCM Control Delay (s)	8	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	14	56	51	347	310	5
Future Vol, veh/h	14	56	51	347	310	5
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	15	61	55	377	337	5

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	827	340	342	0	-	0
Stage 1	340	-	-	-	-	-
Stage 2	487	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	340	700	1211	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	321	700	1211	-	-	-
Mov Cap-2 Maneuver	321	-	-	-	-	-
Stage 1	678	-	-	-	-	-
Stage 2	616	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1211	-	566	-	-
HCM Lane V/C Ratio	0.046	-	0.134	-	-
HCM Control Delay (s)	8.1	0	12.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	13	56	30	313	771	57
Future Vol, veh/h	13	56	30	313	771	57
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	14	61	33	340	838	62

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1275	869	900	0	-	0
Stage 1	869	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	183	350	751	-	-	-
Stage 1	409	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	173	350	751	-	-	-
Mov Cap-2 Maneuver	173	-	-	-	-	-
Stage 1	387	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.5	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	751	-	293	-	-
HCM Lane V/C Ratio	0.043	-	0.256	-	-
HCM Control Delay (s)	10	0	21.5	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Intersection						
Int Delay, s/veh	11.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	59	76	60	861	630	31
Future Vol, veh/h	59	76	60	861	630	31
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	64	83	65	936	685	34

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1768	702	719	0	-	0
Stage 1	702	-	-	-	-	-
Stage 2	1066	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	91	436	878	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	77	436	878	-	-	-
Mov Cap-2 Maneuver	77	-	-	-	-	-
Stage 1	415	-	-	-	-	-
Stage 2	329	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	141.4	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	878	-	144	-	-
HCM Lane V/C Ratio	0.074	-	1.019	-	-
HCM Control Delay (s)	9.4	0	141.4	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.2	-	7.6	-	-

Intersection			
Intersection Delay, s/veh 10.1			
Intersection LOS B			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	75	373	900
Demand Flow Rate, veh/h	77	384	927
Vehicles Circulating, veh/h	863	14	34
Vehicles Exiting, veh/h	98	926	364
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.1	5.2	12.3
Approach LOS	A	A	B
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	77	384	927
Cap Entry Lane, veh/h	572	1360	1333
Entry HV Adj Factor	0.974	0.971	0.971
Flow Entry, veh/h	75	373	900
Cap Entry, veh/h	557	1321	1294
V/C Ratio	0.135	0.282	0.696
Control Delay, s/veh	8.1	5.2	12.3
LOS	A	A	B
95th %tile Queue, veh	0	1	6

Intersection			
Intersection Delay, s/veh	13.5		
Intersection LOS	B		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	147	1001	719
Demand Flow Rate, veh/h	151	1031	741
Vehicles Circulating, veh/h	706	66	67
Vehicles Exiting, veh/h	102	791	1030
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.2	17.1	9.6
Approach LOS	A	C	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	151	1031	741
Cap Entry Lane, veh/h	672	1290	1289
Entry HV Adj Factor	0.974	0.971	0.971
Flow Entry, veh/h	147	1001	719
Cap Entry, veh/h	654	1252	1251
V/C Ratio	0.225	0.799	0.575
Control Delay, s/veh	8.2	17.1	9.6
LOS	A	C	A
95th %tile Queue, veh	1	9	4

Intersection						
Int Delay, s/veh	7.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	0	2	0	0	22
Future Vol, veh/h	0	0	2	0	0	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, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	2	0	0	24

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	2	0	-	0	2
Stage 1	-	-	-	-	2
Stage 2	-	-	-	-	0
Critical Hdwy	4.13	-	-	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	2.227	-	-	-	3.527
Pot Cap-1 Maneuver	1614	-	-	-	1018
Stage 1	-	-	-	-	1019
Stage 2	-	-	-	-	-
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1614	-	-	-	1018
Mov Cap-2 Maneuver	-	-	-	-	1018
Stage 1	-	-	-	-	1019
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1614	-	-	-	1079
HCM Lane V/C Ratio	-	-	-	-	0.022
HCM Control Delay (s)	0	-	-	-	8.4
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	4	11	3	0	0	0
Future Vol, veh/h	4	11	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	12	3	0	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	3	0	-	0	23
Stage 1	-	-	-	-	3
Stage 2	-	-	-	-	20
Critical Hdwy	4.13	-	-	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	2.227	-	-	-	3.527
Pot Cap-1 Maneuver	1612	-	-	-	991
Stage 1	-	-	-	-	1018
Stage 2	-	-	-	-	1000
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1612	-	-	-	989
Mov Cap-2 Maneuver	-	-	-	-	989
Stage 1	-	-	-	-	1016
Stage 2	-	-	-	-	1000

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1612	-	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	7.2	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	8.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	13	0	3	0	0	89
Future Vol, veh/h	13	0	3	0	0	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	14	0	3	0	0	97

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	3	0	-	0	31
Stage 1	-	-	-	-	3
Stage 2	-	-	-	-	28
Critical Hdwy	4.13	-	-	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	2.227	-	-	-	3.527
Pot Cap-1 Maneuver	1612	-	-	-	980
Stage 1	-	-	-	-	1018
Stage 2	-	-	-	-	992
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1612	-	-	-	971
Mov Cap-2 Maneuver	-	-	-	-	971
Stage 1	-	-	-	-	1009
Stage 2	-	-	-	-	992

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1612	-	-	-	1078
HCM Lane V/C Ratio	0.009	-	-	-	0.09
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	6.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	84	14	4	0	0	44
Future Vol, veh/h	84	14	4	0	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	91	15	4	0	0	48

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	4	0	-	0	201
Stage 1	-	-	-	-	4
Stage 2	-	-	-	-	197
Critical Hdwy	4.13	-	-	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	2.227	-	-	-	3.527
Pot Cap-1 Maneuver	1611	-	-	-	785
Stage 1	-	-	-	-	1017
Stage 2	-	-	-	-	834
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1611	-	-	-	740
Mov Cap-2 Maneuver	-	-	-	-	740
Stage 1	-	-	-	-	959
Stage 2	-	-	-	-	834

Approach	EB	WB	SB
HCM Control Delay, s	6.3	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1611	-	-	-	1077
HCM Lane V/C Ratio	0.057	-	-	-	0.044
HCM Control Delay (s)	7.4	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	12	0	175	0	0	316
Future Vol, veh/h	12	0	175	0	0	316
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	13	0	190	0	0	343

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	533	190	0	0	190	0
Stage 1	190	-	-	-	-	-
Stage 2	343	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	506	849	-	-	1378	-
Stage 1	840	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	506	849	-	-	1378	-
Mov Cap-2 Maneuver	506	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	716	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	506	1378
HCM Lane V/C Ratio	-	-	0.026	-
HCM Control Delay (s)	-	-	12.3	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	5	0	388	9	0	339
Future Vol, veh/h	5	0	388	9	0	339
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	0	422	10	0	368

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	795	427	0	0	432
Stage 1	427	-	-	-	-
Stage 2	368	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	355	625	-	-	1122
Stage 1	656	-	-	-	-
Stage 2	698	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	355	625	-	-	1122
Mov Cap-2 Maneuver	355	-	-	-	-
Stage 1	656	-	-	-	-
Stage 2	698	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	355	1122
HCM Lane V/C Ratio	-	-	0.015	-
HCM Control Delay (s)	-	-	15.3	0
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	3.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	1	367	13	1	983
Future Vol, veh/h	80	1	367	13	1	983
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	87	1	399	14	1	1068

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1476	406	0	0	413
Stage 1	406	-	-	-	-
Stage 2	1070	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	138	643	-	-	1141
Stage 1	671	-	-	-	-
Stage 2	328	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	138	643	-	-	1141
Mov Cap-2 Maneuver	138	-	-	-	-
Stage 1	671	-	-	-	-
Stage 2	327	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	67.5	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	139	1141
HCM Lane V/C Ratio	-	-	0.633	0.001
HCM Control Delay (s)	-	-	67.5	8.2
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	3.4	0

Intersection						
Int Delay, s/veh	6.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	3	1096	90	7	786
Future Vol, veh/h	50	3	1096	90	7	786
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	54	3	1191	98	8	854

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2110	1240	0	0	1289
Stage 1	1240	-	-	-	-
Stage 2	870	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	56	213	-	-	535
Stage 1	272	-	-	-	-
Stage 2	408	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 54	213	-	-	535
Mov Cap-2 Maneuver	~ 54	-	-	-	-
Stage 1	272	-	-	-	-
Stage 2	397	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	248.4	0	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	56	535
HCM Lane V/C Ratio	-	-	1.029	0.014
HCM Control Delay (s)	-	-	248.4	11.8
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	4.8	0

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection			
Intersection Delay, s/veh	17.6		
Intersection LOS	C		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	88	413	1069
Demand Flow Rate, veh/h	91	425	1101
Vehicles Circulating, veh/h	411	1	90
Vehicles Exiting, veh/h	15	1190	412
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.1	5.4	23.3
Approach LOS	A	A	C
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	91	425	1101
Cap Entry Lane, veh/h	907	1378	1259
Entry HV Adj Factor	0.967	0.972	0.971
Flow Entry, veh/h	88	413	1069
Cap Entry, veh/h	877	1340	1222
V/C Ratio	0.100	0.308	0.875
Control Delay, s/veh	5.1	5.4	23.3
LOS	A	A	C
95th %tile Queue, veh	0	1	13



Intersection			
Intersection Delay, s/veh 26.0			
Intersection LOS D			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	57	1289	862
Demand Flow Rate, veh/h	59	1328	888
Vehicles Circulating, veh/h	1227	8	56
Vehicles Exiting, veh/h	109	936	1230
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	11.8	35.9	12.1
Approach LOS	B	E	B
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	59	1328	888
Cap Entry Lane, veh/h	395	1369	1303
Entry HV Adj Factor	0.966	0.971	0.971
Flow Entry, veh/h	57	1289	862
Cap Entry, veh/h	381	1329	1266
V/C Ratio	0.149	0.970	0.681
Control Delay, s/veh	11.8	35.9	12.1
LOS	B	E	B
95th %tile Queue, veh	1	20	6

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	23	121	156	225	185	102
Future Vol, veh/h	23	121	156	225	185	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	65	-	-	170
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	25	132	170	245	201	111

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	786	201	312	0	-	0
Stage 1	201	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	360	837	1243	-	-	-
Stage 1	830	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	311	837	1243	-	-	-
Mov Cap-2 Maneuver	311	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	555	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	3.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1243	-	311	837	-	-
HCM Lane V/C Ratio	0.136	-	0.08	0.157	-	-
HCM Control Delay (s)	8.4	-	17.6	10.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.3	0.6	-	-

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	24	110	166	430	257	36
Future Vol, veh/h	24	110	166	430	257	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	65	-	-	170
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	26	120	180	467	279	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1106	279	318	0	-	0
Stage 1	279	-	-	-	-	-
Stage 2	827	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	232	757	1236	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	428	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	198	757	1236	-	-	-
Mov Cap-2 Maneuver	198	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	428	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	2.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1236	-	198	757	-	-
HCM Lane V/C Ratio	0.146	-	0.132	0.158	-	-
HCM Control Delay (s)	8.4	-	25.9	10.6	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.4	0.6	-	-

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	23	121	156	225	185	102
Future Vol, veh/h	23	121	156	225	185	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	65	-	-	170
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	25	132	170	245	201	111

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	786	201	312	0	-	0
Stage 1	201	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	360	837	1243	-	-	-
Stage 1	830	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	311	837	1243	-	-	-
Mov Cap-2 Maneuver	311	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	555	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	3.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1243	-	311	837	-	-
HCM Lane V/C Ratio	0.136	-	0.08	0.157	-	-
HCM Control Delay (s)	8.4	-	17.6	10.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.3	0.6	-	-

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	24	110	166	430	257	36
Future Vol, veh/h	24	110	166	430	257	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	65	-	-	170
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	26	120	180	467	279	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1106	279	318	0	-	0
Stage 1	279	-	-	-	-	-
Stage 2	827	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	232	757	1236	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	428	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	198	757	1236	-	-	-
Mov Cap-2 Maneuver	198	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	428	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	2.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1236	-	198	757	-	-
HCM Lane V/C Ratio	0.146	-	0.132	0.158	-	-
HCM Control Delay (s)	8.4	-	25.9	10.6	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.4	0.6	-	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	85	3	21	51	13	2	29	42	45	90	0
Future Vol, veh/h	0	85	3	21	51	13	2	29	42	45	90	0
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	92	3	23	55	14	2	32	46	49	98	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.2	7.7	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	0%	25%	33%
Vol Thru, %	40%	97%	60%	67%
Vol Right, %	58%	3%	15%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	88	85	135
LT Vol	2	0	21	45
Through Vol	29	85	51	90
RT Vol	42	3	13	0
Lane Flow Rate	79	96	92	147
Geometry Grp	1	1	1	1
Degree of Util (X)	0.093	0.121	0.116	0.185
Departure Headway (Hd)	4.22	4.555	4.538	4.542
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	788	791	791
Service Time	2.24	2.576	2.559	2.561
HCM Lane V/C Ratio	0.093	0.122	0.116	0.186
HCM Control Delay	7.7	8.2	8.2	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0.4	0.7

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	83	3	57	135	49	8	88	24	25	55	2
Future Vol, veh/h	3	83	3	57	135	49	8	88	24	25	55	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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	3	90	3	62	147	53	9	96	26	27	60	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	8.5			9.8			8.9			8.8		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	3%	24%	30%
Vol Thru, %	73%	93%	56%	67%
Vol Right, %	20%	3%	20%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	89	241	82
LT Vol	8	3	57	25
Through Vol	88	83	135	55
RT Vol	24	3	49	2
Lane Flow Rate	130	97	262	89
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.129	0.33	0.124
Departure Headway (Hd)	4.798	4.782	4.532	5.002
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	745	747	791	714
Service Time	2.847	2.832	2.572	3.055
HCM Lane V/C Ratio	0.174	0.13	0.331	0.125
HCM Control Delay	8.9	8.5	9.8	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.4	1.4	0.4

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	85	3	21	51	13	2	29	42	45	90	0
Future Vol, veh/h	0	85	3	21	51	13	2	29	42	45	90	0
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	92	3	23	55	14	2	32	46	49	98	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.2	7.7	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	0%	25%	33%
Vol Thru, %	40%	97%	60%	67%
Vol Right, %	58%	3%	15%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	88	85	135
LT Vol	2	0	21	45
Through Vol	29	85	51	90
RT Vol	42	3	13	0
Lane Flow Rate	79	96	92	147
Geometry Grp	1	1	1	1
Degree of Util (X)	0.093	0.121	0.116	0.185
Departure Headway (Hd)	4.22	4.555	4.538	4.542
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	788	791	791
Service Time	2.24	2.576	2.559	2.561
HCM Lane V/C Ratio	0.093	0.122	0.116	0.186
HCM Control Delay	7.7	8.2	8.2	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0.4	0.7



Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	83	3	57	135	49	8	88	24	25	55	2
Future Vol, veh/h	3	83	3	57	135	49	8	88	24	25	55	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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	3	90	3	62	147	53	9	96	26	27	60	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	9.8	8.9	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	3%	24%	30%
Vol Thru, %	73%	93%	56%	67%
Vol Right, %	20%	3%	20%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	89	241	82
LT Vol	8	3	57	25
Through Vol	88	83	135	55
RT Vol	24	3	49	2
Lane Flow Rate	130	97	262	89
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.129	0.33	0.124
Departure Headway (Hd)	4.798	4.782	4.532	5.002
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	745	747	791	714
Service Time	2.847	2.832	2.572	3.055
HCM Lane V/C Ratio	0.174	0.13	0.331	0.125
HCM Control Delay	8.9	8.5	9.8	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.4	1.4	0.4

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	3	1	7	4	1	0	80	73	41	211	20
Future Vol, veh/h	0	3	1	7	4	1	0	80	73	41	211	20
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	3	1	8	4	1	0	87	79	45	229	22

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	459	496	240	459	468	127	251	0	0	166	0	0
Stage 1	330	330	-	127	127	-	-	-	-	-	-	-
Stage 2	129	166	-	332	341	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	511	474	796	511	491	921	1309	-	-	1406	-	-
Stage 1	681	644	-	874	789	-	-	-	-	-	-	-
Stage 2	872	759	-	679	637	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	493	456	796	493	473	921	1309	-	-	1406	-	-
Mov Cap-2 Maneuver	493	456	-	493	473	-	-	-	-	-	-	-
Stage 1	681	620	-	874	789	-	-	-	-	-	-	-
Stage 2	866	759	-	650	613	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.1		12.3		0		1.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1309	-	-	511	505	1406	-
HCM Lane V/C Ratio	-	-	-	0.009	0.026	0.032	-
HCM Control Delay (s)	0	-	-	12.1	12.3	7.6	0
HCM Lane LOS	A	-	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	12	2	29	35	12	1	495	47	7	158	1
Future Vol, veh/h	7	12	2	29	35	12	1	495	47	7	158	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	13	2	32	38	13	1	538	51	8	172	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	780	780	173	762	755	564	173	0	0	589	0	0
Stage 1	189	189	-	566	566	-	-	-	-	-	-	-
Stage 2	591	591	-	196	189	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	311	326	868	320	337	523	1398	-	-	981	-	-
Stage 1	810	742	-	507	506	-	-	-	-	-	-	-
Stage 2	492	493	-	803	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	275	323	868	307	334	523	1398	-	-	981	-	-
Mov Cap-2 Maneuver	275	323	-	307	334	-	-	-	-	-	-	-
Stage 1	809	735	-	506	505	-	-	-	-	-	-	-
Stage 2	443	493	-	780	735	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	17		18.8		0		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1398	-	-	324	342	981	-
HCM Lane V/C Ratio	0.001	-	-	0.07	0.242	0.008	-
HCM Control Delay (s)	7.6	0	-	17	18.8	8.7	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.9	0	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	3	1	7	4	1	0	80	73	41	211	20
Future Vol, veh/h	0	3	1	7	4	1	0	80	73	41	211	20
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	3	1	8	4	1	0	87	79	45	229	22

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	459	496	240	459	468	127	251	0	0	166	0	0
Stage 1	330	330	-	127	127	-	-	-	-	-	-	-
Stage 2	129	166	-	332	341	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	511	474	796	511	491	921	1309	-	-	1406	-	-
Stage 1	681	644	-	874	789	-	-	-	-	-	-	-
Stage 2	872	759	-	679	637	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	493	456	796	493	473	921	1309	-	-	1406	-	-
Mov Cap-2 Maneuver	493	456	-	493	473	-	-	-	-	-	-	-
Stage 1	681	620	-	874	789	-	-	-	-	-	-	-
Stage 2	866	759	-	650	613	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.1		12.3		0		1.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1309	-	-	511	505	1406	-
HCM Lane V/C Ratio	-	-	-	0.009	0.026	0.032	-
HCM Control Delay (s)	0	-	-	12.1	12.3	7.6	0
HCM Lane LOS	A	-	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	12	2	29	35	12	1	495	47	7	158	1
Future Vol, veh/h	7	12	2	29	35	12	1	495	47	7	158	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	13	2	32	38	13	1	538	51	8	172	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	780	780	173	762	755	564	173	0	0	589	0	0
Stage 1	189	189	-	566	566	-	-	-	-	-	-	-
Stage 2	591	591	-	196	189	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	311	326	868	320	337	523	1398	-	-	981	-	-
Stage 1	810	742	-	507	506	-	-	-	-	-	-	-
Stage 2	492	493	-	803	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	275	323	868	307	334	523	1398	-	-	981	-	-
Mov Cap-2 Maneuver	275	323	-	307	334	-	-	-	-	-	-	-
Stage 1	809	735	-	506	505	-	-	-	-	-	-	-
Stage 2	443	493	-	780	735	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	17		18.8		0		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1398	-	-	324	342	981	-
HCM Lane V/C Ratio	0.001	-	-	0.07	0.242	0.008	-
HCM Control Delay (s)	7.6	0	-	17	18.8	8.7	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.9	0	-

HCM 6th Signalized Intersection Summary  
107: SR 38 & Logan St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	84	29	110	155	114	19	177	45	348	391	13
Future Volume (veh/h)	24	84	29	110	155	114	19	177	45	348	391	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	91	32	120	168	124	21	192	49	378	425	14
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	327	377	133	468	285	211	462	876	742	637	843	28
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1079	1311	461	1258	992	732	942	1856	1572	1130	1786	59
Grp Volume(v), veh/h	26	0	123	120	0	292	21	192	49	378	0	439
Grp Sat Flow(s),veh/h/ln	1079	0	1773	1258	0	1724	942	1856	1572	1130	0	1845
Q Serve(g_s), s	0.9	0.0	2.2	3.4	0.0	6.0	0.7	2.5	0.7	12.3	0.0	6.9
Cycle Q Clear(g_c), s	6.9	0.0	2.2	5.6	0.0	6.0	7.5	2.5	0.7	14.9	0.0	6.9
Prop In Lane	1.00		0.26	1.00		0.42	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	327	0	510	468	0	496	462	876	742	637	0	871
V/C Ratio(X)	0.08	0.00	0.24	0.26	0.00	0.59	0.05	0.22	0.07	0.59	0.00	0.50
Avail Cap(c_a), veh/h	405	0	639	559	0	621	584	1114	944	783	0	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	11.3	13.5	0.0	12.7	10.2	6.5	6.0	10.8	0.0	7.6
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.3	0.0	1.1	0.0	0.1	0.0	0.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	0.8	0.0	2.0	0.1	0.7	0.2	2.3	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.8	0.0	11.6	13.8	0.0	13.8	10.3	6.6	6.0	11.7	0.0	8.1
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		149			412			262				817
Approach Delay, s/veh		12.3			13.8			6.8				9.8
Approach LOS		B			B			A				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.6		17.0		24.6		17.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		25.0		15.0		25.0		15.0				
Max Q Clear Time (g_c+I1), s		9.5		8.9		16.9		8.0				
Green Ext Time (p_c), s		1.1		0.3		2.8		1.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				10.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
107: SR 38 & Logan St

Existing PM Peak  
12/11/2023

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	68	195	44	87	157	266	29	333	54	328	349	15
Future Volume (veh/h)	68	195	44	87	157	266	29	333	54	328	349	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	74	212	48	95	171	289	32	362	59	357	379	16
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	175	439	99	346	186	314	501	928	786	507	884	37
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	924	1464	332	1111	620	1047	981	1856	1572	958	1767	75
Grp Volume(v), veh/h	74	0	260	95	0	460	32	362	59	357	0	395
Grp Sat Flow(s),veh/h/ln	924	0	1796	1111	0	1667	981	1856	1572	958	0	1842
Q Serve(g_s), s	1.7	0.0	5.9	3.8	0.0	13.3	1.1	6.1	1.0	18.4	0.0	6.8
Cycle Q Clear(g_c), s	15.0	0.0	5.9	9.8	0.0	13.3	7.9	6.1	1.0	24.5	0.0	6.8
Prop In Lane	1.00		0.18	1.00		0.63	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	175	0	539	346	0	500	501	928	786	507	0	921
V/C Ratio(X)	0.42	0.00	0.48	0.27	0.00	0.92	0.06	0.39	0.08	0.70	0.00	0.43
Avail Cap(c_a), veh/h	175	0	539	346	0	500	501	928	786	507	0	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	14.3	18.3	0.0	16.9	10.5	7.8	6.5	15.4	0.0	8.0
Incr Delay (d2), s/veh	1.6	0.0	0.7	0.4	0.0	22.3	0.1	0.3	0.0	4.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.2	0.9	0.0	7.4	0.2	1.8	0.2	3.8	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	15.0	18.7	0.0	39.2	10.5	8.0	6.5	19.8	0.0	8.3
LnGrp LOS	C	A	B	B	A	D	B	A	A	B	A	A
Approach Vol, veh/h		334			555			453				752
Approach Delay, s/veh		17.5			35.7			8.0				13.7
Approach LOS		B			D			A				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		30.0		20.0		30.0		20.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		25.0		15.0		25.0		15.0				
Max Q Clear Time (g_c+I1), s		9.9		17.0		26.5		15.3				
Green Ext Time (p_c), s		2.1		0.0		0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary  
107: SR 38 & Logan St























Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	84	29	110	155	114	19	356	45	517	664	13
Future Volume (veh/h)	24	84	29	110	155	114	19	356	45	517	664	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	91	32	120	168	124	21	387	49	562	722	14
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	147	271	95	284	205	151	272	449	380	611	1190	23
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.24	0.24	0.24	0.35	0.66	0.66
Sat Flow, veh/h	1079	1311	461	1258	992	732	716	1856	1572	1767	1814	35
Grp Volume(v), veh/h	26	0	123	120	0	292	21	387	49	562	0	736
Grp Sat Flow(s),veh/h/ln	1079	0	1773	1258	0	1724	716	1856	1572	1767	0	1849
Q Serve(g_s), s	1.7	0.0	4.3	6.5	0.0	11.8	1.7	14.5	1.8	22.2	0.0	16.5
Cycle Q Clear(g_c), s	13.5	0.0	4.3	10.8	0.0	11.8	1.7	14.5	1.8	22.2	0.0	16.5
Prop In Lane	1.00		0.26	1.00		0.42	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	147	0	366	284	0	356	272	449	380	611	0	1213
V/C Ratio(X)	0.18	0.00	0.34	0.42	0.00	0.82	0.08	0.86	0.13	0.92	0.00	0.61
Avail Cap(c_a), veh/h	147	0	366	284	0	356	306	536	454	705	0	1399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.0	0.0	24.6	29.2	0.0	27.6	21.5	26.4	21.6	22.8	0.0	7.1
Incr Delay (d2), s/veh	0.6	0.0	0.5	1.0	0.0	14.2	0.1	11.9	0.2	16.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.8	2.0	0.0	6.0	0.3	7.4	0.6	11.0	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	25.1	30.2	0.0	41.8	21.6	38.3	21.7	38.9	0.0	7.7
LnGrp LOS	C	A	C	C	A	D	C	D	C	D	A	A
Approach Vol, veh/h		149			412			457			1298	
Approach Delay, s/veh		26.8			38.4			35.8			21.2	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	30.1	22.6		20.0		52.7		20.0				
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s	29.0	21.0		15.0		55.0		15.0				
Max Q Clear Time (g_c+I1), s	24.2	16.5		15.5		18.5		13.8				
Green Ext Time (p_c), s	0.9	1.1		0.0		5.9		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				27.5								
HCM 6th LOS				C								



HCM 6th Signalized Intersection Summary  
107: SR 38 & Logan St

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	195	44	87	157	534	29	960	54	328	736	15
Future Volume (veh/h)	68	195	44	87	157	534	29	960	54	328	736	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	74	212	48	95	171	580	32	1043	59	357	800	16
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	65	399	90	232	101	343	297	810	686	273	1154	23
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.44	0.44	0.44	0.15	0.64	0.64
Sat Flow, veh/h	706	1464	332	1111	371	1258	664	1856	1572	1767	1813	36
Grp Volume(v), veh/h	74	0	260	95	0	751	32	1043	59	357	0	816
Grp Sat Flow(s),veh/h/ln	706	0	1796	1111	0	1629	664	1856	1572	1767	0	1849
Q Serve(g_s), s	0.0	0.0	13.5	8.8	0.0	30.0	3.6	48.0	2.4	17.0	0.0	31.6
Cycle Q Clear(g_c), s	30.0	0.0	13.5	22.3	0.0	30.0	13.2	48.0	2.4	17.0	0.0	31.6
Prop In Lane	1.00		0.18	1.00		0.77	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	65	0	490	232	0	444	297	810	686	273	0	1177
V/C Ratio(X)	1.13	0.00	0.53	0.41	0.00	1.69	0.11	1.29	0.09	1.31	0.00	0.69
Avail Cap(c_a), veh/h	65	0	490	232	0	444	297	810	686	273	0	1177
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	34.0	43.5	0.0	40.0	24.5	31.0	18.2	46.5	0.0	13.0
Incr Delay (d2), s/veh	151.2	0.0	1.1	1.2	0.0	320.3	0.2	138.9	0.1	162.1	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	6.0	2.5	0.0	51.3	0.6	51.5	0.9	19.6	0.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	206.2	0.0	35.1	44.7	0.0	360.3	24.6	169.9	18.2	208.6	0.0	14.8
LnGrp LOS	F	A	D	D	A	F	C	F	B	F	A	B
Approach Vol, veh/h		334			846			1134			1173	
Approach Delay, s/veh		73.0			324.8			157.9			73.8	
Approach LOS		E			F			F			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	22.0	53.0		35.0		75.0		35.0				
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s	17.0	48.0		30.0		70.0		30.0				
Max Q Clear Time (g_c+I1), s	19.0	50.0		32.0		33.6		32.0				
Green Ext Time (p_c), s	0.0	0.0		0.0		7.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	162.0											
HCM 6th LOS	F											

Intersection													
Int Delay, s/veh	2												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations		↕	↕		↕	↕	↕	↕			↕	↕	
Traffic Vol, veh/h	0	779	233	9	325	1	49	1	4	0	10	5	
Future Vol, veh/h	0	779	233	9	325	1	49	1	4	0	10	5	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	81	-	-	95	92	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	
Mvmt Flow	0	847	253	10	353	1	53	1	4	0	11	5	

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	1100	0	0	1229	1221	847	1349	1473	353
Stage 1	-	-	-	-	-	-	847	847	-	373	373	-
Stage 2	-	-	-	-	-	-	382	374	-	976	1100	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1199	-	-	631	-	-	154	179	360	127	126	688
Stage 1	-	-	-	-	-	-	355	377	-	646	617	-
Stage 2	-	-	-	-	-	-	638	616	-	301	287	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1199	-	-	631	-	-	140	175	360	123	123	688
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	175	-	123	123	-
Stage 1	-	-	-	-	-	-	355	377	-	646	605	-
Stage 2	-	-	-	-	-	-	609	604	-	297	287	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	0.3	43.1	28.6
HCM LOS			E	D

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	140	297	631	-	-	1199	-	-
HCM Lane V/C Ratio	0.38	0.018	0.016	-	-	-	-	0.096
HCM Control Delay (s)	45.7	17.3	10.8	0	-	0	-	28.6
HCM Lane LOS	E	C	B	A	-	A	-	D
HCM 95th %tile Q(veh)	1.6	0.1	0	-	-	0	-	0.3

Intersection													
Int Delay, s/veh	17.7												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations		↕	↕		↕	↕	↕	↕			↕	↕	
Traffic Vol, veh/h	15	778	93	9	690	21	89	4	20	2	1	8	
Future Vol, veh/h	15	778	93	9	690	21	89	4	20	2	1	8	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	81	-	-	95	92	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	
Mvmt Flow	16	846	101	10	750	23	97	4	22	2	1	9	

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	773	0	0	947	0	0	1665	1671	846	1712	1749	750
Stage 1	-	-	-	-	-	-	878	878	-	770	770	-
Stage 2	-	-	-	-	-	-	787	793	-	942	979	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	838	-	-	721	-	-	~ 77	95	361	71	85	410
Stage 1	-	-	-	-	-	-	341	364	-	392	409	-
Stage 2	-	-	-	-	-	-	383	399	-	314	327	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	838	-	-	721	-	-	~ 71	89	361	61	80	410
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 71	89	-	61	80	-
Stage 1	-	-	-	-	-	-	327	349	-	376	399	-
Stage 2	-	-	-	-	-	-	365	389	-	279	314	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0.1	265.7	27.8
HCM LOS			F	D

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	71	239	721	-	-	838	-	170
HCM Lane V/C Ratio	1.363	0.109	0.014	-	-	0.019	-	0.07
HCM Control Delay (s)	\$ 331.5	21.9	10.1	0	-	9.4	0	27.8
HCM Lane LOS	F	C	B	A	-	A	A	D
HCM 95th %tile Q(veh)	7.8	0.4	0	-	-	0.1	-	0.2

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	10.2											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↔	↔		↔	↔	↔	↔			↔	
Traffic Vol, veh/h	0	1221	233	9	504	1	49	1	4	0	10	5
Future Vol, veh/h	0	1221	233	9	504	1	49	1	4	0	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	81	-	-	95	92	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	1327	253	10	548	1	53	1	4	0	11	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	549	0	0	1580	0	0	1904	1896	1327	2024	2148	548
Stage 1	-	-	-	-	-	-	1327	1327	-	568	568	-
Stage 2	-	-	-	-	-	-	577	569	-	1456	1580	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1016	-	-	413	-	-	~ 52	69	189	43	48	534
Stage 1	-	-	-	-	-	-	190	223	-	506	505	-
Stage 2	-	-	-	-	-	-	500	504	-	161	168	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1016	-	-	413	-	-	~ 41	67	189	40	46	534
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 41	67	-	40	46	-
Stage 1	-	-	-	-	-	-	190	223	-	506	487	-
Stage 2	-	-	-	-	-	-	467	486	-	157	168	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	0.2	\$ 362.7	76.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	41	139	413	-	-	1016	-	- 66
HCM Lane V/C Ratio	1.299	0.039	0.024	-	-	-	-	- 0.247
HCM Control Delay (s)	\$ 396.4	32	13.9	0	-	0	-	- 76.6
HCM Lane LOS	F	D	B	A	-	A	-	- F
HCM 95th %tile Q(veh)	5.3	0.1	0.1	-	-	0	-	- 0.9

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	739.5											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕	↕		↕	↕	↕	↕			↕	
Traffic Vol, veh/h	15	1165	93	9	1585	21	89	4	20	2	1	8
Future Vol, veh/h	15	1165	93	9	1585	21	89	4	20	2	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	81	-	-	95	92	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	16	1266	101	10	1723	23	97	4	22	2	1	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1746	0	0	1367	0	0	3058	3064	1266	3105	3142	1723
Stage 1	-	-	-	-	-	-	1298	1298	-	1743	1743	-
Stage 2	-	-	-	-	-	-	1760	1766	-	1362	1399	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	357	-	-	499	-	-	~ 8	12	205	7	11	110
Stage 1	-	-	-	-	-	-	198	231	-	109	140	-
Stage 2	-	-	-	-	-	-	107	136	-	182	206	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	357	-	-	499	-	-	~ 2	~ 3	205	-	2	110
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 2	~ 3	-	-	2	-
Stage 1	-	-	-	-	-	-	159	186	-	88	39	-
Stage 2	-	-	-	-	-	-	~ 26	37	-	128	166	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0.1	\$ 19707.9	
HCM LOS			F	-

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	2	17	499	-	-	357	-	-
HCM Lane V/C Ratio	48.37	1.535	0.02	-	-	0.046	-	-
HCM Control Delay (s)	\$ 24823.4	\$ 737.9	12.4	0	-	15.6	0	-
HCM Lane LOS	F	F	B	A	-	C	A	-
HCM 95th %tile Q(veh)	14.4	3.7	0.1	-	-	0.1	-	-

























Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh33.1						
Intersection LOS D						
Approach	SE		NW		NE	SW
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	1580		559		58	16
Demand Flow Rate, veh/h	1628		575		60	16
Vehicles Circulating, veh/h	21		56		1367	629
Vehicles Exiting, veh/h	624		1371		282	2
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	44.3		4.7		10.4	4.6
Approach LOS	E		A		B	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	TR	LTR	LTR
Assumed Moves	LT	R	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.840	0.160	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	1367	261	270	305	60	16
Cap Entry Lane, veh/h	1324	1395	1282	1354	444	832
Entry HV Adj Factor	0.971	0.969	0.972	0.971	0.966	0.980
Flow Entry, veh/h	1327	253	263	296	58	16
Cap Entry, veh/h	1285	1352	1247	1314	429	815
V/C Ratio	1.032	0.187	0.211	0.225	0.135	0.019
Control Delay, s/veh	51.9	4.2	4.7	4.7	10.4	4.6
LOS	F	A	A	A	B	A
95th %tile Queue, veh	25	1	1	1	0	0

Intersection						
Intersection Delay, s/veh 24.1						
Intersection LOS C						
Approach	SE		NW		NE	SW
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	1383		1756		123	12
Demand Flow Rate, veh/h	1424		1809		127	12
Vehicles Circulating, veh/h	13		120		1322	1885
Vehicles Exiting, veh/h	1884		1329		115	44
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	37.9		14.1		12.5	13.4
Approach LOS	E		B		B	B
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	TR	LTR	LTR
Assumed Moves	LT	R	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.927	0.073	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	1320	104	850	959	127	12
Cap Entry Lane, veh/h	1334	1405	1209	1282	462	286
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.968	0.998
Flow Entry, veh/h	1282	101	825	931	123	12
Cap Entry, veh/h	1295	1364	1174	1245	447	285
V/C Ratio	0.990	0.074	0.703	0.748	0.275	0.042
Control Delay, s/veh	40.7	3.2	13.5	14.6	12.5	13.4
LOS	E	A	B	B	B	B
95th %tile Queue, veh	21	0	6	7	1	0

HCM 6th Signalized Intersection Summary  
109: Hague Rd & SR 38

























Existing AM Peak  
12/11/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	767	17	8	249	50	15	120	35	169	263	131
Future Volume (veh/h)	83	767	17	8	249	50	15	120	35	169	263	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	90	834	18	9	271	54	16	130	38	184	286	142
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	641	944	800	224	801	679	238	622	176	355	528	256
Arrive On Green	0.09	0.51	0.51	0.02	0.43	0.43	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	952	2713	767	1208	2304	1114
Grp Volume(v), veh/h	90	834	18	9	271	54	16	83	85	184	217	211
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	952	1763	1717	1208	1763	1655
Q Serve(g_s), s	1.3	22.9	0.3	0.2	5.5	1.2	0.9	2.2	2.3	8.3	6.2	6.4
Cycle Q Clear(g_c), s	1.3	22.9	0.3	0.2	5.5	1.2	7.3	2.2	2.3	10.6	6.2	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		0.67
Lane Grp Cap(c), veh/h	641	944	800	224	801	679	238	404	394	355	404	380
V/C Ratio(X)	0.14	0.88	0.02	0.04	0.34	0.08	0.07	0.21	0.22	0.52	0.54	0.56
Avail Cap(c_a), veh/h	693	1140	966	413	1140	966	253	433	422	375	433	407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.4	12.5	7.0	11.8	10.8	9.5	22.6	17.7	17.8	22.1	19.3	19.4
Incr Delay (d2), s/veh	0.1	7.4	0.0	0.1	0.2	0.0	0.1	0.2	0.3	1.2	1.1	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	8.6	0.1	0.1	1.8	0.3	0.2	0.8	0.8	2.1	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.5	19.9	7.0	11.8	11.0	9.6	22.7	18.0	18.1	23.3	20.4	20.8
LnGrp LOS	A	B	A	B	B	A	C	B	B	C	C	C
Approach Vol, veh/h		942			334			184			612	
Approach Delay, s/veh		18.3			10.8			18.4			21.4	
Approach LOS		B			B			B			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.1	4.9	34.0		18.1	9.3	29.6				
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		14.0	7.0	35.0		14.0	7.0	35.0				
Max Q Clear Time (g_c+I1), s		9.3	2.2	24.9		12.6	3.3	7.5				
Green Ext Time (p_c), s		0.3	0.0	4.1		0.5	0.1	1.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			18.0									
HCM 6th LOS			B									



























HCM 6th Signalized Intersection Summary  
 109: Hague Rd & SR 38

Existing PM Peak  
 12/11/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	646	32	16	571	159	84	368	57	104	215	172
Future Volume (veh/h)	285	646	32	16	571	159	84	368	57	104	215	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	310	702	35	17	621	173	91	400	62	113	234	187
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	412	904	766	306	714	605	244	713	110	237	443	339
Arrive On Green	0.13	0.49	0.49	0.03	0.38	0.38	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	958	3062	471	923	1901	1455
Grp Volume(v), veh/h	310	702	35	17	621	173	91	229	233	113	216	205
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	958	1763	1771	923	1763	1594
Q Serve(g_s), s	5.3	17.4	0.7	0.3	17.3	4.2	5.2	6.4	6.5	6.5	6.0	6.3
Cycle Q Clear(g_c), s	5.3	17.4	0.7	0.3	17.3	4.2	11.5	6.4	6.5	13.0	6.0	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		0.91
Lane Grp Cap(c), veh/h	412	904	766	306	714	605	244	411	412	237	411	371
V/C Ratio(X)	0.75	0.78	0.05	0.06	0.87	0.29	0.37	0.56	0.56	0.48	0.53	0.55
Avail Cap(c_a), veh/h	434	904	766	476	831	704	244	411	412	237	411	371
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	11.8	7.5	10.9	15.9	11.9	23.9	18.9	18.9	24.8	18.7	18.8
Incr Delay (d2), s/veh	6.9	4.3	0.0	0.1	8.8	0.3	0.9	1.7	1.8	1.5	1.3	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.3	0.2	0.1	7.5	1.2	1.1	2.4	2.4	1.4	2.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	16.1	7.5	11.0	24.7	12.1	24.8	20.6	20.7	26.3	20.0	20.6
LnGrp LOS	B	B	A	B	C	B	C	C	C	C	B	C
Approach Vol, veh/h		1047			811			553			534	
Approach Delay, s/veh		16.5			21.7			21.3			21.6	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.0	5.6	32.2		18.0	11.3	26.5				
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		13.0	7.0	26.0		13.0	8.0	25.0				
Max Q Clear Time (g_c+I1), s		13.5	2.3	19.4		15.0	7.3	19.3				
Green Ext Time (p_c), s		0.0	0.0	2.5		0.0	0.1	2.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				19.7								
HCM 6th LOS				B								

























HCM 6th Signalized Intersection Summary  
109: Hague Rd & SR 38

Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	1183	536	8	428	50	147	173	35	195	515	135
Future Volume (veh/h)	85	1183	536	8	428	50	147	173	35	195	515	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	92	1286	583	9	465	54	160	188	38	212	560	147
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	494	1100	1051	76	1039	1060	134	434	86	352	514	135
Arrive On Green	0.05	0.59	0.59	0.01	0.56	0.56	0.08	0.15	0.15	0.11	0.19	0.19
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	2933	581	1767	2765	723
Grp Volume(v), veh/h	92	1286	583	9	465	54	160	111	115	212	356	351
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1763	1751	1767	1763	1725
Q Serve(g_s), s	3.0	86.0	28.4	0.3	21.3	1.7	11.0	8.3	8.7	14.3	27.0	27.0
Cycle Q Clear(g_c), s	3.0	86.0	28.4	0.3	21.3	1.7	11.0	8.3	8.7	14.3	27.0	27.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.42
Lane Grp Cap(c), veh/h	494	1100	1051	76	1039	1060	134	261	259	352	328	321
V/C Ratio(X)	0.19	1.17	0.55	0.12	0.45	0.05	1.19	0.43	0.44	0.60	1.09	1.09
Avail Cap(c_a), veh/h	497	1100	1051	135	1100	1111	134	261	259	394	328	321
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	29.6	12.7	36.0	18.7	8.0	67.1	56.2	56.4	43.7	59.1	59.1
Incr Delay (d2), s/veh	0.2	86.3	0.6	0.7	0.3	0.0	139.4	1.1	1.2	2.1	74.9	77.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	61.7	9.5	0.2	9.0	0.6	10.1	3.7	3.9	6.4	18.6	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	115.9	13.3	36.6	19.0	8.0	206.4	57.3	57.5	45.9	133.9	136.3
LnGrp LOS	B	F	B	D	B	A	F	E	E	D	F	F
Approach Vol, veh/h		1961			528			386			919	
Approach Delay, s/veh		80.6			18.2			119.2			114.5	
Approach LOS		F			B			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.5	26.5	6.1	91.0	16.0	32.0	10.8	86.3				
Change Period (Y+Rc), s	5.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	20.0	18.0	7.0	86.0	11.0	27.0	7.0	86.0				
Max Q Clear Time (g_c+I1), s	16.3	10.7	2.3	88.0	13.0	29.0	5.0	23.3				
Green Ext Time (p_c), s	0.2	0.6	0.0	0.0	0.0	0.0	0.0	3.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			84.0									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
109: Hague Rd & SR 38

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	1033	356	16	1427	198	325	518	57	104	328	175
Future Volume (veh/h)	287	1033	356	16	1427	198	325	518	57	104	328	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	312	1123	387	17	1551	215	353	563	62	113	357	190
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	213	1094	1137	90	965	891	236	683	75	166	283	148
Arrive On Green	0.09	0.59	0.59	0.02	0.52	0.52	0.13	0.21	0.21	0.05	0.13	0.13
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	3203	352	1767	2237	1170
Grp Volume(v), veh/h	312	1123	387	17	1551	215	353	309	316	113	280	267
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1763	1792	1767	1763	1645
Q Serve(g_s), s	14.0	88.4	13.6	0.7	78.0	10.3	20.0	25.1	25.2	7.0	19.0	19.0
Cycle Q Clear(g_c), s	14.0	88.4	13.6	0.7	78.0	10.3	20.0	25.1	25.2	7.0	19.0	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.71
Lane Grp Cap(c), veh/h	213	1094	1137	90	965	891	236	376	382	166	223	208
V/C Ratio(X)	1.47	1.03	0.34	0.19	1.61	0.24	1.50	0.82	0.83	0.68	1.25	1.28
Avail Cap(c_a), veh/h	213	1094	1137	130	965	891	236	376	382	166	223	208
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	30.8	7.6	36.0	36.0	16.3	65.0	56.3	56.3	57.5	65.5	65.5
Incr Delay (d2), s/veh	233.2	34.1	0.2	1.0	278.2	0.1	245.2	13.6	13.8	10.7	145.5	158.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.6	47.1	4.3	0.3	108.0	3.7	24.9	12.4	12.7	1.3	17.4	17.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	287.0	64.9	7.8	37.1	314.2	16.5	310.2	69.9	70.1	68.2	211.0	223.8
LnGrp LOS	F	F	A	D	F	B	F	E	E	E	F	F
Approach Vol, veh/h		1822			1783			978			660	
Approach Delay, s/veh		90.8			275.7			156.7			191.7	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	37.0	7.6	93.4	25.0	24.0	18.0	83.0				
Change Period (Y+Rc), s	5.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	32.0	7.0	85.0	20.0	19.0	14.0	78.0				
Max Q Clear Time (g_c+I1), s	9.0	27.2	2.7	90.4	22.0	21.0	16.0	80.0				
Green Ext Time (p_c), s	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	178.7											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
109: Hague Rd & SR 38

Future AM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑		↖	↑↑	
Traffic Volume (veh/h)	85	1183	536	8	428	50	147	173	35	195	515	135
Future Volume (veh/h)	85	1183	536	8	428	50	147	173	35	195	515	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	92	1286	583	9	465	54	160	188	38	212	560	147
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	279	1396	768	139	1165	745	318	536	106	254	646	169
Arrive On Green	0.08	0.40	0.40	0.02	0.33	0.33	0.09	0.18	0.18	0.14	0.23	0.23
Sat Flow, veh/h	3428	3526	1572	1767	3526	1572	3428	2933	581	1767	2765	723
Grp Volume(v), veh/h	92	1286	583	9	465	54	160	111	115	212	356	351
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1572	1714	1763	1751	1767	1763	1725
Q Serve(g_s), s	1.8	25.2	21.9	0.2	7.4	1.4	3.2	4.0	4.1	8.5	14.1	14.2
Cycle Q Clear(g_c), s	1.8	25.2	21.9	0.2	7.4	1.4	3.2	4.0	4.1	8.5	14.1	14.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.42
Lane Grp Cap(c), veh/h	279	1396	768	139	1165	745	318	322	320	254	412	403
V/C Ratio(X)	0.33	0.92	0.76	0.06	0.40	0.07	0.50	0.35	0.36	0.84	0.87	0.87
Avail Cap(c_a), veh/h	331	1410	774	282	1410	854	331	322	320	292	437	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	20.8	15.1	18.6	18.7	10.4	31.3	25.9	25.9	30.2	26.7	26.7
Incr Delay (d2), s/veh	0.7	10.1	4.3	0.2	0.2	0.0	1.2	0.6	0.7	16.8	15.8	16.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	10.9	7.4	0.1	2.7	0.4	1.3	1.6	1.6	4.5	7.1	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.1	31.0	19.4	18.7	18.9	10.4	32.6	26.5	26.6	47.0	42.5	43.4
LnGrp LOS	C	C	B	B	B	B	C	C	C	D	D	D
Approach Vol, veh/h		1961			528			386			919	
Approach Delay, s/veh		27.6			18.1			29.0			43.9	
Approach LOS		C			B			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.4	18.3	5.2	33.7	11.7	21.9	9.9	29.0				
Change Period (Y+Rc), s	5.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	13.0	7.0	29.0	7.0	18.0	7.0	29.0				
Max Q Clear Time (g_c+110), s	11.0	6.1	2.2	27.2	5.2	16.2	3.8	9.4				
Green Ext Time (p_c), s	0.1	0.6	0.0	1.5	0.1	0.8	0.1	2.9				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh											30.4	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
109: Hague Rd & SR 38

Future PM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑		↖	↑↑	
Traffic Volume (veh/h)	287	1033	356	16	1427	198	325	518	57	104	328	175
Future Volume (veh/h)	287	1033	356	16	1427	198	325	518	57	104	328	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	312	1123	387	17	1551	215	353	563	62	113	357	190
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	305	1746	954	217	1528	804	381	605	66	137	348	182
Arrive On Green	0.09	0.50	0.50	0.03	0.43	0.43	0.11	0.19	0.19	0.08	0.16	0.16
Sat Flow, veh/h	3428	3526	1572	1767	3526	1572	3428	3203	352	1767	2237	1170
Grp Volume(v), veh/h	312	1123	387	17	1551	215	353	309	316	113	280	267
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1572	1714	1763	1792	1767	1763	1645
Q Serve(g_s), s	8.0	21.2	11.6	0.5	39.0	7.0	9.2	15.5	15.6	5.7	14.0	14.0
Cycle Q Clear(g_c), s	8.0	21.2	11.6	0.5	39.0	7.0	9.2	15.5	15.6	5.7	14.0	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.71
Lane Grp Cap(c), veh/h	305	1746	954	217	1528	804	381	333	339	137	274	256
V/C Ratio(X)	1.02	0.64	0.41	0.08	1.02	0.27	0.93	0.93	0.93	0.82	1.02	1.04
Avail Cap(c_a), veh/h	305	1746	954	307	1528	804	381	333	339	137	274	256
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	16.8	9.2	14.7	25.5	12.5	39.6	35.9	35.9	40.9	38.0	38.0
Incr Delay (d2), s/veh	57.8	0.8	0.3	0.2	26.9	0.2	28.4	31.5	32.0	31.4	59.8	68.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	7.9	3.4	0.2	20.3	2.2	5.2	9.2	9.4	3.5	10.3	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	98.8	17.6	9.5	14.8	52.4	12.6	68.0	67.4	68.0	72.2	97.8	106.1
LnGrp LOS	F	B	A	B	F	B	E	E	E	E	F	F
Approach Vol, veh/h		1822			1783			978			660	
Approach Delay, s/veh		29.8			47.2			67.8			96.8	
Approach LOS		C			D			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.0	22.0	6.4	49.6	15.0	19.0	12.0	44.0				
Change Period (Y+Rc), s	5.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	17.0	7.0	40.0	10.0	14.0	8.0	39.0					
Max Q Clear Time (g_c+1), s	17.6	2.5	23.2	11.2	16.0	10.0	41.0					
Green Ext Time (p_c), s	0.0	0.0	0.0	8.5	0.0	0.0	0.0					

Intersection Summary												
HCM 6th Ctrl Delay, s/veh											51.3	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary  
 110: Gray Rd/Moontown Rd & SR 32

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑		↖	↗	
Traffic Volume (veh/h)	10	415	20	84	745	22	30	31	86	61	72	97
Future Volume (veh/h)	10	415	20	84	745	22	30	31	86	61	72	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	451	22	91	810	24	33	34	93	66	78	105
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	173	736	36	448	865	26	301	75	204	356	140	188
Arrive On Green	0.02	0.42	0.42	0.08	0.48	0.48	0.05	0.17	0.17	0.07	0.20	0.20
Sat Flow, veh/h	1767	1755	86	1767	1793	53	1767	439	1201	1767	717	965
Grp Volume(v), veh/h	11	0	473	91	0	834	33	0	127	66	0	183
Grp Sat Flow(s),veh/h/ln	1767	0	1840	1767	0	1846	1767	0	1639	1767	0	1682
Q Serve(g_s), s	0.2	0.0	14.1	1.8	0.0	30.0	1.0	0.0	4.9	2.1	0.0	6.9
Cycle Q Clear(g_c), s	0.2	0.0	14.1	1.8	0.0	30.0	1.0	0.0	4.9	2.1	0.0	6.9
Prop In Lane	1.00		0.05	1.00		0.03	1.00		0.73	1.00		0.57
Lane Grp Cap(c), veh/h	173	0	771	448	0	891	301	0	279	356	0	328
V/C Ratio(X)	0.06	0.00	0.61	0.20	0.00	0.94	0.11	0.00	0.45	0.19	0.00	0.56
Avail Cap(c_a), veh/h	315	0	941	477	0	944	393	0	280	404	0	328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	16.0	10.2	0.0	17.2	22.2	0.0	26.3	21.2	0.0	25.6
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.2	0.0	15.7	0.2	0.0	1.2	0.2	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	5.1	0.6	0.0	13.9	0.4	0.0	1.9	0.8	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	0.0	16.8	10.5	0.0	32.8	22.3	0.0	27.4	21.4	0.0	27.7
LnGrp LOS	B	A	B	B	A	C	C	A	C	C	A	C
Approach Vol, veh/h		484			925			160			249	
Approach Delay, s/veh		16.8			30.6			26.4			26.0	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	9.8	34.5	7.3	18.7	5.4	39.0					
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	7.0	36.0	7.0	12.0	7.0	36.0					
Max Q Clear Time (g_c+1), s	6.9	3.8	16.1	3.0	8.9	2.2	32.0					
Green Ext Time (p_c), s	0.0	0.2	0.0	2.6	0.0	0.2	0.0	2.0				

Intersection Summary

HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary  
110: Gray Rd/Moontown Rd & SR 32

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑		↖	↗	
Traffic Volume (veh/h)	82	867	59	85	660	46	84	115	137	70	85	54
Future Volume (veh/h)	82	867	59	85	660	46	84	115	137	70	85	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	89	942	64	92	717	50	91	125	149	76	92	59
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	327	893	61	207	892	62	271	107	128	200	143	92
Arrive On Green	0.07	0.52	0.52	0.07	0.52	0.52	0.07	0.14	0.14	0.07	0.14	0.14
Sat Flow, veh/h	1767	1718	117	1767	1714	120	1767	771	919	1767	1056	677
Grp Volume(v), veh/h	89	0	1006	92	0	767	91	0	274	76	0	151
Grp Sat Flow(s),veh/h/ln	1767	0	1835	1767	0	1834	1767	0	1690	1767	0	1734
Q Serve(g_s), s	1.9	0.0	46.0	2.0	0.0	30.5	3.8	0.0	12.3	3.2	0.0	7.3
Cycle Q Clear(g_c), s	1.9	0.0	46.0	2.0	0.0	30.5	3.8	0.0	12.3	3.2	0.0	7.3
Prop In Lane	1.00		0.06	1.00		0.07	1.00		0.54	1.00		0.39
Lane Grp Cap(c), veh/h	327	0	953	207	0	954	271	0	235	200	0	235
V/C Ratio(X)	0.27	0.00	1.06	0.45	0.00	0.80	0.34	0.00	1.16	0.38	0.00	0.64
Avail Cap(c_a), veh/h	343	0	953	221	0	954	286	0	235	221	0	235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	21.3	19.8	0.0	17.5	29.7	0.0	38.1	30.2	0.0	36.2
Incr Delay (d2), s/veh	0.4	0.0	44.9	1.5	0.0	5.1	0.7	0.0	110.0	1.2	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	28.3	0.9	0.0	12.2	1.6	0.0	12.1	1.3	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.3	0.0	66.1	21.3	0.0	22.6	30.5	0.0	148.1	31.4	0.0	42.1
LnGrp LOS	B	A	F	C	A	C	C	A	F	C	A	D
Approach Vol, veh/h		1095			859			365			227	
Approach Delay, s/veh		61.9			22.4			118.8			38.5	
Approach LOS		E			C			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	17.3	10.3	51.0	10.3	17.0	10.2	51.1				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	7.0	46.0	7.0	12.0	7.0	46.0					
Max Q Clear Time (g_c+1/2), s	14.3	4.0	48.0	5.8	9.3	3.9	32.5					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.2	0.0	4.2				

Intersection Summary

HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
 110: Gray Rd/Moontown Rd & SR 32

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑		↖	↗	
Traffic Volume (veh/h)	93	1045	67	85	844	163	87	142	137	135	108	63
Future Volume (veh/h)	93	1045	67	85	844	163	87	142	137	135	108	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	101	1136	73	92	917	177	95	154	149	147	117	68
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	138	1059	68	129	927	179	220	145	140	142	191	111
Arrive On Green	0.05	0.61	0.61	0.05	0.61	0.61	0.05	0.17	0.17	0.05	0.17	0.17
Sat Flow, veh/h	1767	1725	111	1767	1511	292	1767	866	838	1767	1101	640
Grp Volume(v), veh/h	101	0	1209	92	0	1094	95	0	303	147	0	185
Grp Sat Flow(s),veh/h/ln	1767	0	1836	1767	0	1803	1767	0	1705	1767	0	1740
Q Serve(g_s), s	3.5	0.0	92.0	3.6	0.0	89.3	6.7	0.0	25.0	8.0	0.0	14.7
Cycle Q Clear(g_c), s	3.5	0.0	92.0	3.6	0.0	89.3	6.7	0.0	25.0	8.0	0.0	14.7
Prop In Lane	1.00		0.06	1.00		0.16	1.00		0.49	1.00		0.37
Lane Grp Cap(c), veh/h	138	0	1127	129	0	1106	220	0	284	142	0	302
V/C Ratio(X)	0.73	0.00	1.07	0.71	0.00	0.99	0.43	0.00	1.07	1.03	0.00	0.61
Avail Cap(c_a), veh/h	140	0	1127	131	0	1107	220	0	284	142	0	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	0.0	28.9	42.3	0.0	28.4	49.7	0.0	62.4	55.7	0.0	57.3
Incr Delay (d2), s/veh	17.5	0.0	48.6	16.6	0.0	24.3	1.3	0.0	71.7	84.3	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	51.8	4.0	0.0	42.2	3.0	0.0	16.4	4.8	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	0.0	77.5	58.9	0.0	52.7	51.0	0.0	134.2	140.0	0.0	60.9
LnGrp LOS	E	A	F	E	A	D	D	A	F	F	A	E
Approach Vol, veh/h		1310			1186			398			332	
Approach Delay, s/veh		76.0			53.2			114.3			95.9	
Approach LOS		E			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	30.0	10.8	97.0	11.0	31.0	10.9	97.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	25.0	7.0	92.0	7.0	26.0	7.0	92.0					
Max Q Clear Time (g_c+M), s	27.0	5.6	94.0	8.7	16.7	5.5	91.3					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.6	0.0	0.5					

Intersection Summary

HCM 6th Ctrl Delay	74.4
HCM 6th LOS	E



HCM 6th Signalized Intersection Summary  
 110: Gray Rd/Moontown Rd & SR 32

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑		↖	↗	
Traffic Volume (veh/h)	93	1045	67	85	844	163	87	142	137	135	108	63
Future Volume (veh/h)	93	1045	67	85	844	163	87	142	137	135	108	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	101	1136	73	92	917	177	95	154	149	147	117	68
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	138	1059	68	129	927	179	220	145	140	142	191	111
Arrive On Green	0.05	0.61	0.61	0.05	0.61	0.61	0.05	0.17	0.17	0.05	0.17	0.17
Sat Flow, veh/h	1767	1725	111	1767	1511	292	1767	866	838	1767	1101	640
Grp Volume(v), veh/h	101	0	1209	92	0	1094	95	0	303	147	0	185
Grp Sat Flow(s),veh/h/ln	1767	0	1836	1767	0	1803	1767	0	1705	1767	0	1740
Q Serve(g_s), s	3.5	0.0	92.0	3.6	0.0	89.3	6.7	0.0	25.0	8.0	0.0	14.7
Cycle Q Clear(g_c), s	3.5	0.0	92.0	3.6	0.0	89.3	6.7	0.0	25.0	8.0	0.0	14.7
Prop In Lane	1.00		0.06	1.00		0.16	1.00		0.49	1.00		0.37
Lane Grp Cap(c), veh/h	138	0	1127	129	0	1106	220	0	284	142	0	302
V/C Ratio(X)	0.73	0.00	1.07	0.71	0.00	0.99	0.43	0.00	1.07	1.03	0.00	0.61
Avail Cap(c_a), veh/h	140	0	1127	131	0	1107	220	0	284	142	0	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	0.0	28.9	42.3	0.0	28.4	49.7	0.0	62.4	55.7	0.0	57.3
Incr Delay (d2), s/veh	17.5	0.0	48.6	16.6	0.0	24.3	1.3	0.0	71.7	84.3	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	51.8	4.0	0.0	42.2	3.0	0.0	16.4	4.8	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	0.0	77.5	58.9	0.0	52.7	51.0	0.0	134.2	140.0	0.0	60.9
LnGrp LOS	E	A	F	E	A	D	D	A	F	F	A	E
Approach Vol, veh/h		1310			1186			398				332
Approach Delay, s/veh		76.0			53.2			114.3				95.9
Approach LOS		E			D			F				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.0	30.0	10.8	97.0	11.0	31.0	10.9	97.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	30.0	25.0	7.0	92.0	7.0	26.0	7.0	92.0				
Max Q Clear Time (g_c+M), s	110.0	27.0	5.6	94.0	8.7	16.7	5.5	91.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	74.4
HCM 6th LOS	E

Intersection						
Intersection Delay, s/veh 10.9						
Intersection LOS B						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	627		1089		184	399
Demand Flow Rate, veh/h	646		1121		190	411
Vehicles Circulating, veh/h	376		107		789	1113
Vehicles Exiting, veh/h	1148		872		233	115
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	7.1		7.5		8.2	27.6
Approach LOS	A		A		A	D
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.471	0.529	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	304	342	527	594	190	411
Cap Entry Lane, veh/h	955	1032	1223	1297	726	551
Entry HV Adj Factor	0.970	0.972	0.971	0.971	0.971	0.970
Flow Entry, veh/h	295	332	512	577	184	399
Cap Entry, veh/h	926	1003	1188	1259	705	535
V/C Ratio	0.318	0.332	0.431	0.458	0.262	0.746
Control Delay, s/veh	7.3	7.0	7.5	7.5	8.2	27.6
LOS	A	A	A	A	A	D
95th %tile Queue, veh	1	1	2	2	1	6

Intersection						
Intersection Delay, s/veh 21.0						
Intersection LOS C						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	1310		1186		398	332
Demand Flow Rate, veh/h	1349		1222		410	342
Vehicles Circulating, veh/h	367		361		1425	1138
Vehicles Exiting, veh/h	1113		1474		291	445
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	14.4		12.2		69.0	21.1
Approach LOS	B		B		F	C
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	634	715	574	648	410	342
Cap Entry Lane, veh/h	963	1039	968	1045	423	540
Entry HV Adj Factor	0.971	0.971	0.972	0.970	0.972	0.972
Flow Entry, veh/h	616	694	558	629	398	332
Cap Entry, veh/h	935	1009	941	1014	411	525
V/C Ratio	0.658	0.688	0.593	0.620	0.970	0.634
Control Delay, s/veh	14.2	14.5	12.2	12.3	69.0	21.1
LOS	B	B	B	B	F	C
95th %tile Queue, veh	5	6	4	4	11	4

HCM 6th Signalized Intersection Summary  
 111: Hazel Dell Rd/Little Chicago Rd & SR 32

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	410	99	185	594	31	81	128	264	71	432	121
Future Volume (veh/h)	31	410	99	185	594	31	81	128	264	71	432	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	446	108	201	646	34	88	139	287	77	470	132
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	243	601	647	400	710	732	325	695	480	418	677	380
Arrive On Green	0.05	0.32	0.32	0.11	0.38	0.38	0.09	0.20	0.20	0.08	0.19	0.19
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	34	446	108	201	646	34	88	139	287	77	470	132
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	0.8	13.4	2.7	4.3	20.6	0.7	2.4	2.1	9.7	2.1	7.8	4.3
Cycle Q Clear(g_c), s	0.8	13.4	2.7	4.3	20.6	0.7	2.4	2.1	9.7	2.1	7.8	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	601	647	400	710	732	325	695	480	418	677	380
V/C Ratio(X)	0.14	0.74	0.17	0.50	0.91	0.05	0.27	0.20	0.60	0.18	0.69	0.35
Avail Cap(c_a), veh/h	353	772	792	406	772	784	368	695	480	469	677	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	18.8	11.6	12.7	18.3	9.1	17.6	21.0	18.4	17.2	23.6	19.6
Incr Delay (d2), s/veh	0.3	2.8	0.1	1.0	14.1	0.0	0.4	0.1	2.0	0.2	3.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.3	0.8	1.4	9.9	0.2	0.9	0.8	3.3	0.7	3.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	21.6	11.7	13.7	32.4	9.2	18.1	21.1	20.5	17.4	26.6	20.2
LnGrp LOS	B	C	B	B	C	A	B	C	C	B	C	C
Approach Vol, veh/h	588			881			514			679		
Approach Delay, s/veh	19.5			27.2			20.2			24.3		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	17.3	10.8	25.3	9.5	17.0	7.1	28.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	7.0	26.0	7.0	12.0	7.0	26.0					
Max Q Clear Time (g_c+1), s	11.7	6.3	15.4	4.4	9.8	2.8	22.6					
Green Ext Time (p_c), s	0.0	0.1	0.0	2.1	0.0	0.8	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary  
 111: Hazel Dell Rd/Little Chicago Rd & SR 32

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	721	138	242	667	102	225	498	357	108	315	139
Future Volume (veh/h)	139	721	138	242	667	102	225	498	357	108	315	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	151	784	150	263	725	111	245	541	388	117	342	151
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	300	807	860	291	873	856	321	629	456	229	496	341
Arrive On Green	0.08	0.44	0.44	0.11	0.47	0.47	0.11	0.18	0.18	0.07	0.14	0.14
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	151	784	150	263	725	111	245	541	388	117	342	151
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	4.1	37.0	4.3	8.4	30.4	3.1	10.0	13.3	16.0	5.0	8.3	7.5
Cycle Q Clear(g_c), s	4.1	37.0	4.3	8.4	30.4	3.1	10.0	13.3	16.0	5.0	8.3	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	807	860	291	873	856	321	629	456	229	496	341
V/C Ratio(X)	0.50	0.97	0.17	0.91	0.83	0.13	0.76	0.86	0.85	0.51	0.69	0.44
Avail Cap(c_a), veh/h	304	807	860	291	873	856	321	629	456	236	511	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	24.8	10.2	23.5	20.6	10.0	29.1	35.7	30.0	30.3	36.6	30.4
Incr Delay (d2), s/veh	1.3	24.6	0.1	29.7	6.8	0.1	10.4	11.5	14.2	1.8	3.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	19.8	1.3	5.4	13.1	0.9	5.1	6.4	9.1	2.1	3.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	49.4	10.3	53.2	27.4	10.1	39.5	47.3	44.2	32.1	40.4	31.3
LnGrp LOS	B	D	B	D	C	B	D	D	D	C	D	C
Approach Vol, veh/h	1085			1099			1174			610		
Approach Delay, s/veh	39.7			31.9			44.6			36.5		
Approach LOS	D			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	21.0	14.0	44.0	14.0	17.6	10.8	47.2				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	16.0	10.0	39.0	10.0	13.0	7.0	42.0					
Max Q Clear Time (g_c+1I), s	18.0	10.4	39.0	12.0	10.3	6.1	32.4					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.7	0.0	3.4					

Intersection Summary

HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
 111: Hazel Dell Rd/Little Chicago Rd & SR 32

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	938	155	313	900	136	293	703	502	248	385	139
Future Volume (veh/h)	148	938	155	313	900	136	293	703	502	248	385	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	161	1020	168	340	978	148	318	764	546	270	418	151
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	151	799	871	258	971	943	314	732	556	191	570	339
Arrive On Green	0.05	0.43	0.43	0.15	0.52	0.52	0.12	0.21	0.21	0.08	0.16	0.16
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	161	1020	168	340	978	148	318	764	546	270	418	151
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.0	56.0	6.9	19.0	68.0	5.4	16.0	27.0	27.0	10.0	14.7	10.8
Cycle Q Clear(g_c), s	7.0	56.0	6.9	19.0	68.0	5.4	16.0	27.0	27.0	10.0	14.7	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	799	871	258	971	943	314	732	556	191	570	339
V/C Ratio(X)	1.07	1.28	0.19	1.32	1.01	0.16	1.01	1.04	0.98	1.41	0.73	0.45
Avail Cap(c_a), veh/h	151	799	871	258	971	943	314	732	556	191	570	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	37.0	14.5	55.5	31.0	11.5	43.1	51.5	41.6	46.5	51.8	44.3
Incr Delay (d2), s/veh	93.1	133.9	0.1	167.1	30.8	0.1	54.4	45.1	33.3	213.1	4.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	53.6	2.4	20.2	36.1	1.8	7.1	16.2	21.7	12.6	6.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	128.6	170.9	14.6	222.6	61.8	11.6	97.5	96.6	74.8	259.6	56.7	45.2
LnGrp LOS	F	F	B	F	F	B	F	F	E	F	E	D
Approach Vol, veh/h	1349			1466			1628			839		
Approach Delay, s/veh	146.4			94.0			89.5			119.9		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	32.0	23.0	61.0	20.0	26.0	11.0	73.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	27.0	19.0	56.0	16.0	21.0	7.0	68.0				
Max Q Clear Time (g_c+M2), s	10.0	29.0	21.0	58.0	18.0	16.7	9.0	70.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	110.1
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
 111: Hazel Dell Rd/Little Chicago Rd & SR 32

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	938	155	313	900	136	293	703	502	248	385	139
Future Volume (veh/h)	148	938	155	313	900	136	293	703	502	248	385	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	161	1020	168	340	978	148	318	764	546	270	418	151
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	151	799	871	258	971	943	314	732	556	191	570	339
Arrive On Green	0.05	0.43	0.43	0.15	0.52	0.52	0.12	0.21	0.21	0.08	0.16	0.16
Sat Flow, veh/h	1767	1856	1572	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	161	1020	168	340	978	148	318	764	546	270	418	151
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.0	56.0	6.9	19.0	68.0	5.4	16.0	27.0	27.0	10.0	14.7	10.8
Cycle Q Clear(g_c), s	7.0	56.0	6.9	19.0	68.0	5.4	16.0	27.0	27.0	10.0	14.7	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	799	871	258	971	943	314	732	556	191	570	339
V/C Ratio(X)	1.07	1.28	0.19	1.32	1.01	0.16	1.01	1.04	0.98	1.41	0.73	0.45
Avail Cap(c_a), veh/h	151	799	871	258	971	943	314	732	556	191	570	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	37.0	14.5	55.5	31.0	11.5	43.1	51.5	41.6	46.5	51.8	44.3
Incr Delay (d2), s/veh	93.1	133.9	0.1	167.1	30.8	0.1	54.4	45.1	33.3	213.1	4.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	53.6	2.4	20.2	36.1	1.8	7.1	16.2	21.7	12.6	6.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	128.6	170.9	14.6	222.6	61.8	11.6	97.5	96.6	74.8	259.6	56.7	45.2
LnGrp LOS	F	F	B	F	F	B	F	F	E	F	E	D
Approach Vol, veh/h	1349			1466			1628			839		
Approach Delay, s/veh	146.4			94.0			89.5			119.9		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	32.0	23.0	61.0	20.0	26.0	11.0	73.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	27.0	19.0	56.0	16.0	21.0	7.0	68.0				
Max Q Clear Time (g_c+M2), s	10.0	29.0	21.0	58.0	18.0	16.7	9.0	70.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	110.1
HCM 6th LOS	F

Intersection									
Intersection Delay, s/veh 24.8									
Intersection LOS C									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	823		1191		644		846		
Demand Flow Rate, veh/h	848		1227		663		872		
Vehicles Circulating, veh/h	1006		313		810		1195		
Vehicles Exiting, veh/h	1061		1160		1044		345		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	26.8		11.3		13.2		50.8		
Approach LOS	D		B		B		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	LT	TR	LT	TR	LT	R	LT	TR	
RT Channelized									
Lane Util	0.471	0.529	0.470	0.530	0.415	0.585	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	399	449	577	650	275	388	410	462	
Cap Entry Lane, veh/h	535	604	1012	1088	641	713	450	514	
Entry HV Adj Factor	0.970	0.972	0.970	0.971	0.971	0.972	0.970	0.971	
Flow Entry, veh/h	387	436	560	631	267	377	398	449	
Cap Entry, veh/h	519	587	982	1057	622	693	436	499	
V/C Ratio	0.746	0.744	0.570	0.597	0.429	0.544	0.912	0.899	
Control Delay, s/veh	28.3	25.5	11.3	11.3	12.2	13.9	54.4	47.5	
LOS	D	D	B	B	B	B	F	E	
95th %tile Queue, veh	6	6	4	4	2	3	10	10	



Intersection									
Intersection Delay, s/veh									
358.4									
Intersection LOS									
F									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1349		1466		1628		839		
Demand Flow Rate, veh/h	1390		1509		1677		865		
Vehicles Circulating, veh/h	1059		1281		1495		1685		
Vehicles Exiting, veh/h	1491		1891		954		1105		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	163.3		342.6		603.0		225.1		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.470	0.530	0.470	0.530	0.470	0.530	0.471	0.529	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	653	737	709	800	788	889	407	458	
Cap Entry Lane, veh/h	510	577	415	478	341	398	287	339	
Entry HV Adj Factor	0.971	0.970	0.972	0.971	0.971	0.971	0.969	0.971	
Flow Entry, veh/h	634	715	689	777	765	863	395	445	
Cap Entry, veh/h	495	560	404	464	331	387	278	329	
V/C Ratio	1.281	1.277	1.707	1.674	2.309	2.231	1.421	1.351	
Control Delay, s/veh	166.2	160.7	352.1	334.2	623.6	584.8	243.9	208.4	
LOS	F	F	F	F	F	F	F	F	
95th %tile Queue, veh	26	29	42	45	59	65	21	22	

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	12	734	4	23	748	5	30	0	7	22	0	38
Future Vol, veh/h	12	734	4	23	748	5	30	0	7	22	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	534	-	-	515	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	798	4	25	813	5	33	0	8	24	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	818	0	0	802	0	0	1712	1694	800	1696	1694	816
Stage 1	-	-	-	-	-	-	826	826	-	866	866	-
Stage 2	-	-	-	-	-	-	886	868	-	830	828	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	806	-	-	817	-	-	71	92	383	73	92	375
Stage 1	-	-	-	-	-	-	365	385	-	347	369	-
Stage 2	-	-	-	-	-	-	338	368	-	363	384	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	806	-	-	817	-	-	61	88	383	69	88	375
Mov Cap-2 Maneuver	-	-	-	-	-	-	61	88	-	69	88	-
Stage 1	-	-	-	-	-	-	359	379	-	341	358	-
Stage 2	-	-	-	-	-	-	292	357	-	350	378	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			103.1			49.7		
HCM LOS							F			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	73	806	-	-	817	-	-	143
HCM Lane V/C Ratio	0.551	0.016	-	-	0.031	-	-	0.456
HCM Control Delay (s)	103.1	9.5	-	-	9.5	-	-	49.7
HCM Lane LOS	F	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	2.3	0	-	-	0.1	-	-	2.1

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	41	1101	30	29	1012	28	8	4	31	8	1	32
Future Vol, veh/h	41	1101	30	29	1012	28	8	4	31	8	1	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	534	-	-	515	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	45	1197	33	32	1100	30	9	4	34	9	1	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1130	0	0	1230	0	0	2501	2498	1214	2502	2499	1115
Stage 1	-	-	-	-	-	-	1304	1304	-	1179	1179	-
Stage 2	-	-	-	-	-	-	1197	1194	-	1323	1320	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	615	-	-	563	-	-	19	29	220	19	29	252
Stage 1	-	-	-	-	-	-	196	229	-	231	263	-
Stage 2	-	-	-	-	-	-	226	259	-	191	225	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	615	-	-	563	-	-	14	25	220	13	25	252
Mov Cap-2 Maneuver	-	-	-	-	-	-	14	25	-	13	25	-
Stage 1	-	-	-	-	-	-	182	212	-	214	248	-
Stage 2	-	-	-	-	-	-	183	244	-	147	209	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.3			246			208.6		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	49	615	-	-	563	-	-	52
HCM Lane V/C Ratio	0.954	0.072	-	-	0.056	-	-	0.857
HCM Control Delay (s)	246	11.3	-	-	11.8	-	-	208.6
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	4	0.2	-	-	0.2	-	-	3.6

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↵		↵	↵		↵	↵		↵	↵	
Traffic Vol, veh/h	12	734	4	23	748	5	30	0	7	22	0	38
Future Vol, veh/h	12	734	4	23	748	5	30	0	7	22	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	534	-	-	515	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	798	4	25	813	5	33	0	8	24	0	41

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	818	0	0	802	0	0	1712	1694	800	1696	1694	816
Stage 1	-	-	-	-	-	-	826	826	-	866	866	-
Stage 2	-	-	-	-	-	-	886	868	-	830	828	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	806	-	-	817	-	-	71	92	383	73	92	375
Stage 1	-	-	-	-	-	-	365	385	-	347	369	-
Stage 2	-	-	-	-	-	-	338	368	-	363	384	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	806	-	-	817	-	-	61	88	383	69	88	375
Mov Cap-2 Maneuver	-	-	-	-	-	-	61	88	-	69	88	-
Stage 1	-	-	-	-	-	-	359	379	-	341	358	-
Stage 2	-	-	-	-	-	-	292	357	-	350	378	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	0.2		0.3		98.4		40.3	
HCM LOS					F		E	

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	61	383	806	-	-	817	-	-	69	375
HCM Lane V/C Ratio	0.535	0.02	0.016	-	-	0.031	-	-	0.347	0.11
HCM Control Delay (s/veh)	117.9	14.6	9.5	-	-	9.5	-	-	82.6	15.8
HCM Lane LOS	F	B	A	-	-	A	-	-	F	C
HCM 95th %tile Q (veh)	2.1	0.1	0	-	-	0.1	-	-	1.3	0.4

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	41	1101	30	29	1012	28	8	4	31	8	1	32
Future Vol, veh/h	41	1101	30	29	1012	28	8	4	31	8	1	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	534	-	-	515	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	45	1197	33	32	1100	30	9	4	34	9	1	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1130	0	0	1230	0	0	2501	2498	1214	2502	2499	1115
Stage 1	-	-	-	-	-	-	1304	1304	-	1179	1179	-
Stage 2	-	-	-	-	-	-	1197	1194	-	1323	1320	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	615	-	-	563	-	-	19	29	220	19	29	252
Stage 1	-	-	-	-	-	-	196	229	-	231	263	-
Stage 2	-	-	-	-	-	-	226	259	-	191	225	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	615	-	-	563	-	-	14	25	220	13	25	252
Mov Cap-2 Maneuver	-	-	-	-	-	-	14	25	-	13	25	-
Stage 1	-	-	-	-	-	-	182	212	-	214	248	-
Stage 2	-	-	-	-	-	-	183	244	-	147	209	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.3			126.4			120.5		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	14	116	615	-	-	563	-	-	13	198
HCM Lane V/C Ratio	0.621	0.328	0.072	-	-	0.056	-	-	0.669	0.181
HCM Control Delay (s/veh)	\$ 458.2	50.5	11.3	-	-	11.8	-	-	\$ 505.6	27.2
HCM Lane LOS	F	F	B	-	-	B	-	-	F	D
HCM 95th %tile Q (veh)	1.5	1.3	0.2	-	-	0.2	-	-	1.6	0.6

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	42	1593	39	194	1341	105	12	4	149	56	1	32
Future Vol, veh/h	42	1593	39	194	1341	105	12	4	149	56	1	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	534	-	-	515	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	46	1732	42	211	1458	114	13	4	162	61	1	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1572	0	0	1774	0	0	3800	3839	1753	3865	3803	1515
Stage 1	-	-	-	-	-	-	1845	1845	-	1937	1937	-
Stage 2	-	-	-	-	-	-	1955	1994	-	1928	1866	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	416	-	-	348	-	-	~ 2	~ 4	~ 105	~ 2	4	146
Stage 1	-	-	-	-	-	-	95	124	-	84	112	-
Stage 2	-	-	-	-	-	-	82	104	-	85	121	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	416	-	-	348	-	-	~ 1	~ 105	-	~ 1	146	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 1	-	-	~ 1	-	-
Stage 1	-	-	-	-	-	-	84	110	-	75	44	-
Stage 2	-	-	-	-	-	-	24	41	-	-	108	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	3.6		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	416	-	-	348	-	-	-
HCM Lane V/C Ratio	-	0.11	-	-	0.606	-	-	-
HCM Control Delay (s)	-	14.7	-	-	30	-	-	-
HCM Lane LOS	-	B	-	-	D	-	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-	3.8	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	42	1593	39	194	1341	105	12	4	149	56	1	32
Future Vol, veh/h	42	1593	39	194	1341	105	12	4	149	56	1	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	534	-	-	515	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	46	1732	42	211	1458	114	13	4	162	61	1	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1572	0	0	1774	0	0	3800	3839	1753	3865	3803	1515
Stage 1	-	-	-	-	-	-	1845	1845	-	1937	1937	-
Stage 2	-	-	-	-	-	-	1955	1994	-	1928	1866	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	416	-	-	348	-	-	~ 2	~ 4	~ 105	~ 2	4	146
Stage 1	-	-	-	-	-	-	95	124	-	84	112	-
Stage 2	-	-	-	-	-	-	82	104	-	85	121	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	416	-	-	348	-	-	~ 1	~ 105	-	~ 1	146	
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 1	-	-	~ 1	-	
Stage 1	-	-	-	-	-	-	84	110	-	75	44	-
Stage 2	-	-	-	-	-	-	24	41	-	-	108	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	3.6		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	416	-	-	348	-	-	-
HCM Lane V/C Ratio	-	0.11	-	-	0.606	-	-	-
HCM Control Delay (s)	-	14.7	-	-	30	-	-	-
HCM Lane LOS	-	B	-	-	D	-	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-	3.8	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh	9.0					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	1131		1239		196	131
Demand Flow Rate, veh/h	1164		1276		202	135
Vehicles Circulating, veh/h	198		55		1249	1290
Vehicles Exiting, veh/h	1227		1396		113	41
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	8.8		7.8		14.8	12.3
Approach LOS	A		A		B	B
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	547	617	600	676	202	135
Cap Entry Lane, veh/h	1125	1200	1283	1355	491	474
Entry HV Adj Factor	0.971	0.971	0.970	0.971	0.970	0.970
Flow Entry, veh/h	531	599	582	657	196	131
Cap Entry, veh/h	1093	1166	1245	1316	477	460
V/C Ratio	0.486	0.514	0.468	0.499	0.411	0.285
Control Delay, s/veh	8.8	8.9	7.7	7.9	14.8	12.3
LOS	A	A	A	A	B	B
95th %tile Queue, veh	3	3	3	3	2	1



Intersection						
Intersection Delay, s/veh 19.9						
Intersection LOS C						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	1820		1783		179	97
Demand Flow Rate, veh/h	1874		1836		184	100
Vehicles Circulating, veh/h	281		64		1894	1732
Vehicles Exiting, veh/h	1551		2014		261	168
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	25.3		12.7		37.5	17.9
Approach LOS	D		B		E	C
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	881	993	863	973	184	100
Cap Entry Lane, veh/h	1042	1118	1273	1345	284	326
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.972	0.970
Flow Entry, veh/h	855	965	838	945	179	97
Cap Entry, veh/h	1012	1086	1236	1306	276	316
V/C Ratio	0.845	0.888	0.678	0.723	0.648	0.307
Control Delay, s/veh	23.6	26.8	12.2	13.2	37.5	17.9
LOS	C	D	B	B	E	C
95th %tile Queue, veh	11	13	6	7	4	1

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	749	1	17	691	4	40
Future Vol, veh/h	749	1	17	691	4	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	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	814	1	18	751	4	43

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	815	0	1602 815
Stage 1	-	-	-	-	815 -
Stage 2	-	-	-	-	787 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	808	-	116 376
Stage 1	-	-	-	-	433 -
Stage 2	-	-	-	-	447 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	808	-	113 376
Mov Cap-2 Maneuver	-	-	-	-	113 -
Stage 1	-	-	-	-	433 -
Stage 2	-	-	-	-	437 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	18.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	310	-	-	808	-
HCM Lane V/C Ratio	0.154	-	-	0.023	-
HCM Control Delay (s)	18.7	-	-	9.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1057	21	24	965	13	45
Future Vol, veh/h	1057	21	24	965	13	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	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1149	23	26	1049	14	49

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1172	0	2262	1161
Stage 1	-	-	-	-	1161	-
Stage 2	-	-	-	-	1101	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	592	-	45	237
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	317	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	592	-	43	237
Mov Cap-2 Maneuver	-	-	-	-	43	-
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	303	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	66.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	118	-	-	592	-
HCM Lane V/C Ratio	0.534	-	-	0.044	-
HCM Control Delay (s)	66.1	-	-	11.4	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	2.5	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	749	1	17	691	4	40
Future Vol, veh/h	749	1	17	691	4	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	-	-	100	-	100	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	814	1	18	751	4	43

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	815	0	1602 815
Stage 1	-	-	-	-	815 -
Stage 2	-	-	-	-	787 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	808	-	116 376
Stage 1	-	-	-	-	433 -
Stage 2	-	-	-	-	447 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	808	-	113 376
Mov Cap-2 Maneuver	-	-	-	-	113 -
Stage 1	-	-	-	-	433 -
Stage 2	-	-	-	-	437 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.2	17.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	113	376	-	-	808	-
HCM Lane V/C Ratio	0.038	0.116	-	-	0.023	-
HCM Control Delay (s/veh)	38.1	15.8	-	-	9.6	-
HCM Lane LOS	E	C	-	-	A	-
HCM 95th %tile Q (veh)	0.1	0.4	-	-	0.1	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↑	↑	↑	↑
Traffic Vol, veh/h	1057	21	24	965	13	45
Future Vol, veh/h	1057	21	24	965	13	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	-	-	100	-	100	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1149	23	26	1049	14	49

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1172	0	2262	1161
Stage 1	-	-	-	-	1161	-
Stage 2	-	-	-	-	1101	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	592	-	43	237
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	317	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	592	-	43	237
Mov Cap-2 Maneuver	-	-	-	-	43	-
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	303	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.3	46.8
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	43	237	-	-	592	-
HCM Lane V/C Ratio	0.329	0.206	-	-	0.044	-
HCM Control Delay (s/veh)	125.3	24.1	-	-	11.4	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q (veh)	1.1	0.8	-	-	0.1	-

Intersection						
Int Delay, s/veh	43.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↻	↻	
Traffic Vol, veh/h	1752	21	47	1596	14	58
Future Vol, veh/h	1752	21	47	1596	14	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1904	23	51	1735	15	63

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1927	0	3753	1916
Stage 1	-	-	-	-	1916	-
Stage 2	-	-	-	-	1837	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	303	-	~ 5	84
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	138	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	303	-	~ 4	84
Mov Cap-2 Maneuver	-	-	-	-	~ 4	-
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	115	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	\$ 2074.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	17	-	-	303	-
HCM Lane V/C Ratio	4.604	-	-	0.169	-
HCM Control Delay (s)	\$ 2074.5	-	-	19.3	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	10.5	-	-	0.6	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	43.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶		↷	↶	↷	
Traffic Vol, veh/h	1752	21	47	1596	14	58
Future Vol, veh/h	1752	21	47	1596	14	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1904	23	51	1735	15	63

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1927	0	3753 1916
Stage 1	-	-	-	-	1916 -
Stage 2	-	-	-	-	1837 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	303	-	~ 5 84
Stage 1	-	-	-	-	126 -
Stage 2	-	-	-	-	138 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	303	-	~ 4 84
Mov Cap-2 Maneuver	-	-	-	-	~ 4 -
Stage 1	-	-	-	-	126 -
Stage 2	-	-	-	-	115 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	\$ 2074.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	17	-	-	303	-
HCM Lane V/C Ratio	4.604	-	-	0.169	-
HCM Control Delay (s)	\$ 2074.5	-	-	19.3	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	10.5	-	-	0.6	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	↑
Traffic Vol, veh/h	1288	1	18	1065	4	57
Future Vol, veh/h	1288	1	18	1065	4	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1400	1	20	1158	4	62

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1401	0	2020
Stage 1	-	-	-	-	1401
Stage 2	-	-	-	-	619
Critical Hdwy	-	-	4.16	-	6.86
Critical Hdwy Stg 1	-	-	-	-	5.86
Critical Hdwy Stg 2	-	-	-	-	5.86
Follow-up Hdwy	-	-	2.23	-	3.53
Pot Cap-1 Maneuver	-	-	478	-	50
Stage 1	-	-	-	-	192
Stage 2	-	-	-	-	497
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	478	-	48
Mov Cap-2 Maneuver	-	-	-	-	48
Stage 1	-	-	-	-	192
Stage 2	-	-	-	-	476

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.2	21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	48	379	-	-	478	-
HCM Lane V/C Ratio	0.091	0.163	-	-	0.041	-
HCM Control Delay (s/veh)	87.3	16.3	-	-	12.9	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q (veh)	0.3	0.6	-	-	0.1	-



Intersection						
Int Delay, s/veh	4.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	↑
Traffic Vol, veh/h	1752	21	47	1596	14	58
Future Vol, veh/h	1752	21	47	1596	14	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1904	23	51	1735	15	63

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1927	0	2886 964
Stage 1	-	-	-	-	1916 -
Stage 2	-	-	-	-	970 -
Critical Hdwy	-	-	4.16	-	6.86 6.96
Critical Hdwy Stg 1	-	-	-	-	5.86 -
Critical Hdwy Stg 2	-	-	-	-	5.86 -
Follow-up Hdwy	-	-	2.23	-	3.53 3.33
Pot Cap-1 Maneuver	-	-	298	-	~ 13 253
Stage 1	-	-	-	-	100 -
Stage 2	-	-	-	-	326 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	298	-	~ 11 253
Mov Cap-2 Maneuver	-	-	-	-	~ 11 -
Stage 1	-	-	-	-	100 -
Stage 2	-	-	-	-	270 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.6	190
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	11	253	-	-	298	-
HCM Lane V/C Ratio	1.383	0.249	-	-	0.171	-
HCM Control Delay (s/veh)	\$ 878.1	23.9	-	-	19.6	-
HCM Lane LOS	F	C	-	-	C	-
HCM 95th %tile Q (veh)	2.7	1	-	-	0.6	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection									
Intersection Delay, s/veh	6.0								
Intersection LOS	A								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	892		587		0		308		
Demand Flow Rate, veh/h	918		604		0		317		
Vehicles Circulating, veh/h	47		181		965		562		
Vehicles Exiting, veh/h	832		784		0		223		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	6.0		5.5		0.0		7.2		
Approach LOS	A		A		-		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	R	
RT Channelized									
Lane Util	0.469	0.531	0.470	0.530	0.500	0.500	0.148	0.852	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	431	487	284	320	0	0	47	270	
Cap Entry Lane, veh/h	1293	1364	1143	1218	556	625	805	881	
Entry HV Adj Factor	0.972	0.970	0.971	0.972	1.000	1.000	0.979	0.970	
Flow Entry, veh/h	419	473	276	311	0	0	46	262	
Cap Entry, veh/h	1257	1324	1109	1183	556	625	788	855	
V/C Ratio	0.333	0.357	0.249	0.263	0.000	0.000	0.058	0.307	
Control Delay, s/veh	6.0	6.0	5.6	5.4	6.5	5.8	5.1	7.6	
LOS	A	A	A	A	A	A	A	A	
95th %tile Queue, veh	1	2	1	1	0	0	0	1	

Intersection									
Intersection Delay, s/veh	9.6								
Intersection LOS	A								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1270		1059		0		279		
Demand Flow Rate, veh/h	1309		1091		0		287		
Vehicles Circulating, veh/h	72		398		1381		928		
Vehicles Exiting, veh/h	1143		983		0		561		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	8.2		11.3		0.0		9.7		
Approach LOS	A		B		-		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	R	
RT Channelized									
Lane Util	0.470	0.530	0.470	0.530	0.500	0.500	0.251	0.749	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	615	694	513	578	0	0	72	215	
Cap Entry Lane, veh/h	1263	1336	936	1012	379	439	575	645	
Entry HV Adj Factor	0.971	0.970	0.970	0.971	1.000	1.000	0.972	0.972	
Flow Entry, veh/h	597	673	498	561	0	0	70	209	
Cap Entry, veh/h	1227	1296	908	983	379	439	559	627	
V/C Ratio	0.487	0.520	0.548	0.571	0.000	0.000	0.125	0.333	
Control Delay, s/veh	8.1	8.3	11.4	11.3	9.5	8.2	8.0	10.2	
LOS	A	A	B	B	A	A	A	B	
95th %tile Queue, veh	3	3	3	4	0	0	0	1	

Intersection									
Intersection Delay, s/veh	200.1								
Intersection LOS	F								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	2039		1282		893		754		
Demand Flow Rate, veh/h	2100		1321		919		776		
Vehicles Circulating, veh/h	557		1333		1655		1655		
Vehicles Exiting, veh/h	1874		1241		1002		999		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	136.9		282.9		262.8		155.8		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	LT	TR	LT	TR	L	TR	LT	TR	
RT Channelized									
Lane Util	0.470	0.530	0.470	0.530	0.541	0.459	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	987	1113	621	700	497	422	365	411	
Cap Entry Lane, veh/h	809	884	396	457	295	348	295	348	
Entry HV Adj Factor	0.971	0.971	0.970	0.971	0.972	0.971	0.971	0.972	
Flow Entry, veh/h	958	1081	603	680	483	410	354	400	
Cap Entry, veh/h	785	859	384	444	286	338	286	338	
V/C Ratio	1.221	1.258	1.568	1.531	1.687	1.213	1.239	1.182	
Control Delay, s/veh	129.8	143.2	293.6	273.4	355.2	153.9	171.0	142.2	
LOS	F	F	F	F	F	F	F	F	
95th %tile Queue, veh	33	38	34	36	31	18	17	17	

Intersection									
Intersection Delay, s/veh	200.1								
Intersection LOS	F								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	2039		1282		893		754		
Demand Flow Rate, veh/h	2100		1321		919		776		
Vehicles Circulating, veh/h	557		1333		1655		1655		
Vehicles Exiting, veh/h	1874		1241		1002		999		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	136.9		282.9		262.8		155.8		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	LT	TR	LT	TR	L	TR	LT	TR	
RT Channelized									
Lane Util	0.470	0.530	0.470	0.530	0.541	0.459	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	987	1113	621	700	497	422	365	411	
Cap Entry Lane, veh/h	809	884	396	457	295	348	295	348	
Entry HV Adj Factor	0.971	0.971	0.970	0.971	0.972	0.971	0.971	0.972	
Flow Entry, veh/h	958	1081	603	680	483	410	354	400	
Cap Entry, veh/h	785	859	384	444	286	338	286	338	
V/C Ratio	1.221	1.258	1.568	1.531	1.687	1.213	1.239	1.182	
Control Delay, s/veh	129.8	143.2	293.6	273.4	355.2	153.9	171.0	142.2	
LOS	F	F	F	F	F	F	F	F	
95th %tile Queue, veh	33	38	34	36	31	18	17	17	

Intersection						
Int Delay, s/veh	1					
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	1	70	723	8	21	550
Future Vol, veh/h	1	70	723	8	21	550
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	76	786	9	23	598

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1435	791	0	0	795	0
Stage 1	791	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	147	388	-	-	822	-
Stage 1	445	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	141	388	-	-	822	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	16.9	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	379	822	-
HCM Lane V/C Ratio	-	-	0.204	0.028	-
HCM Control Delay (s)	-	-	16.9	9.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

Intersection						
Int Delay, s/veh	3.6					
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	5	128	867	17	105	1041
Future Vol, veh/h	5	128	867	17	105	1041
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	139	942	18	114	1132

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2311	951	0	0	960	0
Stage 1	951	-	-	-	-	-
Stage 2	1360	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	42	314	-	-	713	-
Stage 1	374	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	24	314	-	-	713	-
Mov Cap-2 Maneuver	24	-	-	-	-	-
Stage 1	374	-	-	-	-	-
Stage 2	135	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	50	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	216	713	-
HCM Lane V/C Ratio	-	-	0.669	0.16	-
HCM Control Delay (s)	-	-	50	11	0
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	4.1	0.6	-

Intersection						
Int Delay, s/veh	30.2					
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	5	128	1098	17	105	1246
Future Vol, veh/h	5	128	1098	17	105	1246
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	139	1193	18	114	1354

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2784	1202	0	0	1211	0
Stage 1	1202	-	-	-	-	-
Stage 2	1582	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	21	224	-	-	573	-
Stage 1	283	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 4	224	-	-	573	-
Mov Cap-2 Maneuver	~ 4	-	-	-	-	-
Stage 1	283	-	-	-	-	-
Stage 2	36	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s\$	579.2	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	73	573	-
HCM Lane V/C Ratio	-	-	1.98	0.199	-
HCM Control Delay (s)	-	-	\$ 579.2	12.8	0
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	13.1	0.7	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	30.2					
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	5	128	1098	17	105	1246
Future Vol, veh/h	5	128	1098	17	105	1246
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	139	1193	18	114	1354

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2784	1202	0	0	1211	0
Stage 1	1202	-	-	-	-	-
Stage 2	1582	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	21	224	-	-	573	-
Stage 1	283	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	~ 4	224	-	-	573	-
Mov Cap-2 Maneuver	~ 4	-	-	-	-	-
Stage 1	283	-	-	-	-	-
Stage 2	36	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s\$	579.2	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	73	573	-
HCM Lane V/C Ratio	-	-	1.98	0.199	-
HCM Control Delay (s)	-	-	\$ 579.2	12.8	0
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	13.1	0.7	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection								
Intersection Delay, s/veh	6.5							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		2		1	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	789		601		156		233	
Demand Flow Rate, veh/h	813		620		161		240	
Vehicles Circulating, veh/h	224		156		843		598	
Vehicles Exiting, veh/h	614		848		194		178	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	6.9		5.4		7.2		7.4	
Approach LOS	A		A		A		A	
Lane	Left	Right	Left	Right	Left	Right	Left	
Designated Moves	LT	TR	LT	TR	LT	R	LTR	
Assumed Moves	LT	TR	LT	TR	LT	R	LTR	
RT Channelized								
Lane Util	0.470	0.530	0.469	0.531	0.590	0.410	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.328	
Entry Flow, veh/h	382	431	291	329	95	66	240	
Cap Entry Lane, veh/h	1098	1174	1169	1244	622	694	854	
Entry HV Adj Factor	0.971	0.970	0.971	0.969	0.972	0.970	0.971	
Flow Entry, veh/h	371	418	283	319	92	64	233	
Cap Entry, veh/h	1066	1139	1136	1205	604	673	829	
V/C Ratio	0.348	0.367	0.249	0.265	0.153	0.095	0.281	
Control Delay, s/veh	6.9	6.8	5.5	5.4	7.8	6.4	7.4	
LOS	A	A	A	A	A	A	A	
95th %tile Queue, veh	2	2	1	1	1	0	1	

Intersection								
Intersection Delay, s/veh	11.1							
Intersection LOS	B							
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		2		1	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	1034		940		340		393	
Demand Flow Rate, veh/h	1065		968		350		404	
Vehicles Circulating, veh/h	257		269		1089		1034	
Vehicles Exiting, veh/h	1181		1170		233		203	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	8.9		8.3		12.9		22.3	
Approach LOS	A		A		B		C	
Lane	Left	Right	Left	Right	Left	Right	Left	
Designated Moves	LT	TR	LT	TR	LT	R	LTR	
Assumed Moves	LT	TR	LT	TR	LT	R	LTR	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.594	0.406	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.328	
Entry Flow, veh/h	501	564	455	513	208	142	404	
Cap Entry Lane, veh/h	1066	1141	1054	1130	496	563	590	
Entry HV Adj Factor	0.970	0.972	0.971	0.971	0.970	0.972	0.972	
Flow Entry, veh/h	486	548	442	498	202	138	393	
Cap Entry, veh/h	1034	1109	1023	1097	481	547	573	
V/C Ratio	0.470	0.494	0.432	0.454	0.420	0.252	0.685	
Control Delay, s/veh	8.9	8.8	8.3	8.3	14.9	10.1	22.3	
LOS	A	A	A	A	B	B	C	
95th %tile Queue, veh	3	3	2	2	2	1	5	

Intersection								
Intersection Delay, s/veh	15.2							
Intersection LOS	C							
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		2		1	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	1285		1163		340		393	
Demand Flow Rate, veh/h	1323		1198		350		404	
Vehicles Circulating, veh/h	257		269		1347		1264	
Vehicles Exiting, veh/h	1411		1428		233		203	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	11.3		10.2		18.8		39.6	
Approach LOS	B		B		C		E	
Lane	Left	Right	Left	Right	Left	Right	Left	
Designated Moves	LT	TR	LT	TR	LT	R	LTR	
Assumed Moves	LT	TR	LT	TR	LT	R	LTR	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.594	0.406	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.328	
Entry Flow, veh/h	622	701	563	635	208	142	404	
Cap Entry Lane, veh/h	1066	1141	1054	1130	391	452	485	
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.970	0.972	0.972	
Flow Entry, veh/h	604	681	547	616	202	138	393	
Cap Entry, veh/h	1034	1109	1023	1097	379	439	471	
V/C Ratio	0.584	0.614	0.534	0.562	0.532	0.314	0.833	
Control Delay, s/veh	11.2	11.3	10.1	10.2	22.4	13.5	39.6	
LOS	B	B	B	B	C	B	E	
95th %tile Queue, veh	4	4	3	4	3	1	8	

Intersection								
Intersection Delay, s/veh	15.2							
Intersection LOS	C							
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		2		1	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	1285		1163		340		393	
Demand Flow Rate, veh/h	1323		1198		350		404	
Vehicles Circulating, veh/h	257		269		1347		1264	
Vehicles Exiting, veh/h	1411		1428		233		203	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	11.3		10.2		18.8		39.6	
Approach LOS	B		B		C		E	
Lane	Left	Right	Left	Right	Left	Right	Left	
Designated Moves	LT	TR	LT	TR	LT	R	LTR	
Assumed Moves	LT	TR	LT	TR	LT	R	LTR	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.594	0.406	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.328	
Entry Flow, veh/h	622	701	563	635	208	142	404	
Cap Entry Lane, veh/h	1066	1141	1054	1130	391	452	485	
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.970	0.972	0.972	
Flow Entry, veh/h	604	681	547	616	202	138	393	
Cap Entry, veh/h	1034	1109	1023	1097	379	439	471	
V/C Ratio	0.584	0.614	0.534	0.562	0.532	0.314	0.833	
Control Delay, s/veh	11.2	11.3	10.1	10.2	22.4	13.5	39.6	
LOS	B	B	B	B	C	B	E	
95th %tile Queue, veh	4	4	3	4	3	1	8	

Intersection								
Intersection Delay, s/veh 8.4								
Intersection LOS A								
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		1		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	798		961		25		394	
Demand Flow Rate, veh/h	822		990		26		406	
Vehicles Circulating, veh/h	377		53		1105		781	
Vehicles Exiting, veh/h	810		1078		94		262	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	8.4		6.3		7.3		13.3	
Approach LOS	A		A		A		B	
Lane	Left	Right	Left	Right	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	LTR	LT	R	
Assumed Moves	LT	TR	LT	TR	LTR	LT	R	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	1.000	0.862	0.138	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.645	4.328	
Entry Flow, veh/h	386	436	465	525	26	350	56	
Cap Entry Lane, veh/h	954	1031	1286	1358	555	658	731	
Entry HV Adj Factor	0.972	0.970	0.972	0.970	0.959	0.971	0.964	
Flow Entry, veh/h	375	423	452	509	25	340	54	
Cap Entry, veh/h	928	1000	1249	1317	532	639	705	
V/C Ratio	0.404	0.423	0.362	0.387	0.047	0.532	0.077	
Control Delay, s/veh	8.5	8.3	6.3	6.4	7.3	14.5	5.9	
LOS	A	A	A	A	A	B	A	
95th %tile Queue, veh	2	2	2	2	0	3	0	

Intersection								
Intersection Delay, s/veh12.4								
Intersection LOS B								
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		1		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	1304		1330		105		375	
Demand Flow Rate, veh/h	1343		1370		107		386	
Vehicles Circulating, veh/h	337		104		1653		1041	
Vehicles Exiting, veh/h	1090		1656		27		433	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	13.4		9.1		16.7		19.8	
Approach LOS	B		A		C		C	
Lane	Left	Right	Left	Right	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	LTR	LT	R	
Assumed Moves	LT	TR	LT	TR	LTR	LT	R	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	1.000	0.852	0.148	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.645	4.328	
Entry Flow, veh/h	631	712	644	726	107	329	57	
Cap Entry Lane, veh/h	990	1066	1227	1300	348	518	586	
Entry HV Adj Factor	0.972	0.971	0.971	0.971	0.978	0.972	0.965	
Flow Entry, veh/h	613	691	625	705	105	320	55	
Cap Entry, veh/h	962	1035	1191	1263	341	504	566	
V/C Ratio	0.637	0.668	0.525	0.558	0.307	0.635	0.097	
Control Delay, s/veh	13.3	13.5	8.9	9.2	16.7	21.9	7.5	
LOS	B	B	A	A	C	C	A	
95th %tile Queue, veh	5	5	3	4	1	4	0	

Intersection								
Intersection Delay, s/veh 12.3								
Intersection LOS F								
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		1		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	1559		2234		105		796	
Demand Flow Rate, veh/h	1605		2300		107		820	
Vehicles Circulating, veh/h	771		104		2349		1270	
Vehicles Exiting, veh/h	1319		2352		27		1134	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	104.6		27.9		43.4		373.6	
Approach LOS	F		D		E		F	
Lane	Left	Right	Left	Right	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	LTR	LT	R	
Assumed Moves	LT	TR	LT	TR	LTR	LT	R	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	1.000	0.930	0.070	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.645	4.328	
Entry Flow, veh/h	754	851	1081	1219	107	763	57	
Cap Entry Lane, veh/h	664	737	1227	1300	193	420	482	
Entry HV Adj Factor	0.972	0.971	0.971	0.971	0.978	0.971	0.965	
Flow Entry, veh/h	733	826	1050	1184	105	741	55	
Cap Entry, veh/h	645	716	1191	1262	189	407	465	
V/C Ratio	1.135	1.154	0.881	0.938	0.555	1.818	0.118	
Control Delay, s/veh	102.5	106.5	24.4	30.9	43.4	400.6	9.4	
LOS	F	F	C	D	E	F	A	
95th %tile Queue, veh	23	26	13	17	3	48	0	



Intersection								
Intersection Delay, s/veh 12.3								
Intersection LOS F								
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		1		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	1559		2234		105		796	
Demand Flow Rate, veh/h	1605		2300		107		820	
Vehicles Circulating, veh/h	771		104		2349		1270	
Vehicles Exiting, veh/h	1319		2352		27		1134	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	104.6		27.9		43.4		373.6	
Approach LOS	F		D		E		F	
Lane	Left	Right	Left	Right	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	LTR	LT	R	
Assumed Moves	LT	TR	LT	TR	LTR	LT	R	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	1.000	0.930	0.070	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.645	4.328	
Entry Flow, veh/h	754	851	1081	1219	107	763	57	
Cap Entry Lane, veh/h	664	737	1227	1300	193	420	482	
Entry HV Adj Factor	0.972	0.971	0.971	0.971	0.978	0.971	0.965	
Flow Entry, veh/h	733	826	1050	1184	105	741	55	
Cap Entry, veh/h	645	716	1191	1262	189	407	465	
V/C Ratio	1.135	1.154	0.881	0.938	0.555	1.818	0.118	
Control Delay, s/veh	102.5	106.5	24.4	30.9	43.4	400.6	9.4	
LOS	F	F	C	D	E	F	A	
95th %tile Queue, veh	23	26	13	17	3	48	0	

Intersection									
Intersection Delay, s/veh	12.2								
Intersection LOS	B								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		1		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	956		1291		25		691		
Demand Flow Rate, veh/h	984		1330		26		712		
Vehicles Circulating, veh/h	683		53		1573		921		
Vehicles Exiting, veh/h	950		1546		94		48		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	16.7		5.9		11.2		17.7		
Approach LOS	C		A		B		C		
Lane	Left	Right	Left	Right	Bypass	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	R	LTR	L	LTR	
Assumed Moves	LT	TR	LT	TR		LTR	L	LTR	
RT Channelized					Yield				
Lane Util	0.470	0.530	0.471	0.529		1.000	0.529	0.471	
Follow-Up Headway, s	2.667	2.535	2.667	2.535		2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328		4.328	4.645	4.328	
Entry Flow, veh/h	462	522	431	485	414	26	377	335	
Cap Entry Lane, veh/h	720	795	1286	1358	1314	373	579	649	
Entry HV Adj Factor	0.972	0.970	0.970	0.972	0.971	0.959	0.971	0.969	
Flow Entry, veh/h	449	506	418	471	402	25	366	325	
Cap Entry, veh/h	700	771	1246	1319	1276	358	562	629	
V/C Ratio	0.642	0.657	0.335	0.357	0.315	0.070	0.652	0.516	
Control Delay, s/veh	17.1	16.4	6.0	6.0	5.7	11.2	20.8	14.2	
LOS	C	C	A	A	A	B	C	B	
95th %tile Queue, veh	5	5	1	2	1	0	5	3	

Intersection									
Intersection Delay, s/veh	52.7								
Intersection LOS	F								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		1		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1559		2234		105		796		
Demand Flow Rate, veh/h	1605		2300		107		820		
Vehicles Circulating, veh/h	771		104		2349		1270		
Vehicles Exiting, veh/h	1319		2352		27		89		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	104.6		13.3		43.4		62.8		
Approach LOS	F		B		E		F		
Lane	Left	Right	Left	Right	Bypass	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	R	LTR	L	LTR	
Assumed Moves	LT	TR	LT	TR		LTR	L	LTR	
RT Channelized					Yield				
Lane Util	0.470	0.530	0.470	0.530		1.000	0.530	0.470	
Follow-Up Headway, s	2.667	2.535	2.667	2.535		2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328		4.328	4.645	4.328	
Entry Flow, veh/h	754	851	590	665	1045	107	435	385	
Cap Entry Lane, veh/h	664	737	1227	1300	1260	193	420	482	
Entry HV Adj Factor	0.972	0.971	0.971	0.971	0.971	0.978	0.970	0.971	
Flow Entry, veh/h	733	826	573	646	1015	105	422	374	
Cap Entry, veh/h	645	716	1191	1263	1223	189	407	469	
V/C Ratio	1.135	1.154	0.481	0.512	0.830	0.555	1.036	0.798	
Control Delay, s/veh	102.5	106.5	8.2	8.4	19.4	43.4	86.8	35.7	
LOS	F	F	A	A	C	E	F	E	
95th %tile Queue, veh	23	26	3	3	10	3	14	7	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	1024	829	9	0	16
Future Vol, veh/h	0	1024	829	9	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1113	901	10	0	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	553
HCM Lane V/C Ratio	-	-	0.031
HCM Control Delay (s)	-	-	11.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	7	1519	1225	24	0	16
Future Vol, veh/h	7	1519	1225	24	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	8	1651	1332	26	0	17

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	1332	0	-	0	-	666
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.16	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	-	3.33
Pot Cap-1 Maneuver	509	-	-	0	0	400
Stage 1	-	-	-	0	0	-
Stage 2	-	-	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	509	-	-	-	-	400
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	509	-	-	400
HCM Lane V/C Ratio	0.015	-	-	0.043
HCM Control Delay (s)	12.2	-	-	14.4
HCM Lane LOS	B	-	-	B
HCM 95th %tile Q(veh)	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	7	2140	2057	149	0	16
Future Vol, veh/h	7	2140	2057	149	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	8	2326	2236	162	0	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	2236	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.16	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.23	-	-
Pot Cap-1 Maneuver	225	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	225	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	24.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	225	-	-	200
HCM Lane V/C Ratio	0.034	-	-	0.087
HCM Control Delay (s)	21.6	-	-	24.7
HCM Lane LOS	C	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	0.3

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	7	2140	2057	149	0	16
Future Vol, veh/h	7	2140	2057	149	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	8	2326	2236	162	0	17

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	2236	0	-	0	- 1118
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	4.16	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	3.33
Pot Cap-1 Maneuver	225	-	-	0	0 200
Stage 1	-	-	-	0	0 -
Stage 2	-	-	-	0	0 -
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	225	-	-	-	- 200
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	24.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	225	-	-	200
HCM Lane V/C Ratio	0.034	-	-	0.087
HCM Control Delay (s)	21.6	-	-	24.7
HCM Lane LOS	C	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	0.3

HCM 6th Signalized Intersection Summary  
119: SR 32/Conner St & Cicero Rd

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↖	↗		↖	↗
Traffic Volume (veh/h)	131	733	0	0	884	36	0	0	0	240	18	287
Future Volume (veh/h)	131	733	0	0	884	36	0	0	0	240	18	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	142	797	0	0	961	0	0	0	0	261	20	312
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
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	3
Cap, veh/h	416	1907	0	0	1183		0	470	398	480	26	398
Arrive On Green	0.12	0.54	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.25	0.25	0.25
Sat Flow, veh/h	1767	3618	0	0	3711	0	0	1856	1572	1329	102	1572
Grp Volume(v), veh/h	142	797	0	0	961	0	0	0	0	281	0	312
Grp Sat Flow(s),veh/h/ln	1767	1763	0	0	1763	0	0	1856	1572	1431	0	1572
Q Serve(g_s), s	2.1	6.5	0.0	0.0	12.1	0.0	0.0	0.0	0.0	8.9	0.0	9.0
Cycle Q Clear(g_c), s	2.1	6.5	0.0	0.0	12.1	0.0	0.0	0.0	0.0	8.9	0.0	9.0
Prop In Lane	1.00		0.00	0.00		0.00	0.00		1.00	0.93		1.00
Lane Grp Cap(c), veh/h	416	1907	0	0	1183		0	470	398	505	0	398
V/C Ratio(X)	0.34	0.42	0.00	0.00	0.81		0.00	0.00	0.00	0.56	0.00	0.78
Avail Cap(c_a), veh/h	453	2106	0	0	1307		0	611	518	615	0	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.3	6.6	0.0	0.0	14.7	0.0	0.0	0.0	0.0	16.8	0.0	16.9
Incr Delay (d2), s/veh	0.5	0.1	0.0	0.0	3.7	0.0	0.0	0.0	0.0	1.0	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.6	0.0	0.0	4.5	0.0	0.0	0.0	0.0	2.6	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.8	6.8	0.0	0.0	18.4	0.0	0.0	0.0	0.0	17.8	0.0	22.7
LnGrp LOS	A	A	A	A	B		A	A	A	B	A	C
Approach Vol, veh/h		939			961			0				593
Approach Delay, s/veh		7.2			18.4			0.0				20.4
Approach LOS		A			B							C
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		17.3		31.3		17.3	10.0	21.3				
Change Period (Y+Rc), s		5.0		5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		16.0		29.0		16.0	7.0	18.0				
Max Q Clear Time (g_c+I1), s		0.0		8.5		11.0	4.1	14.1				
Green Ext Time (p_c), s		0.0		5.4		1.3	0.1	2.2				

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



HCM 6th Signalized Intersection Summary  
119: SR 32/Conner St & Cicero Rd

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖	↗		↖	↗
Traffic Volume (veh/h)	356	1254	0	0	1067	104	9	19	3	124	0	139
Future Volume (veh/h)	356	1254	0	0	1067	104	9	19	3	124	0	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	387	1363	0	0	1160	0	10	21	3	135	0	151
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
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	3
Cap, veh/h	440	2102	0	0	1277		87	129	346	132	0	346
Arrive On Green	0.16	0.60	0.00	0.00	0.36	0.00	0.22	0.22	0.22	0.22	0.00	0.22
Sat Flow, veh/h	1767	3618	0	0	3711	0	0	587	1572	0	0	1572
Grp Volume(v), veh/h	387	1363	0	0	1160	0	31	0	3	135	0	151
Grp Sat Flow(s),veh/h/ln	1767	1763	0	0	1763	0	587	0	1572	0	0	1572
Q Serve(g_s), s	6.7	13.9	0.0	0.0	17.0	0.0	0.0	0.0	0.1	0.0	0.0	4.5
Cycle Q Clear(g_c), s	6.7	13.9	0.0	0.0	17.0	0.0	12.0	0.0	0.1	12.0	0.0	4.5
Prop In Lane	1.00		0.00	0.00		0.00	0.32		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	440	2102	0	0	1277		217	0	346	132	0	346
V/C Ratio(X)	0.88	0.65	0.00	0.00	0.91		0.14	0.00	0.01	1.02	0.00	0.44
Avail Cap(c_a), veh/h	448	2136	0	0	1294		217	0	346	132	0	346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.0	7.2	0.0	0.0	16.5	0.0	17.5	0.0	16.6	27.2	0.0	18.3
Incr Delay (d2), s/veh	17.8	0.7	0.0	0.0	9.5	0.0	0.3	0.0	0.0	84.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.5	0.0	0.0	7.3	0.0	0.3	0.0	0.0	4.7	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	7.9	0.0	0.0	26.0	0.0	17.8	0.0	16.6	111.3	0.0	19.2
LnGrp LOS	C	A	A	A	C		B	A	B	F	A	B
Approach Vol, veh/h		1750			1160			34				286
Approach Delay, s/veh		12.5			26.0			17.7				62.7
Approach LOS		B			C			B				E
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0		37.5		17.0	12.7	24.7				
Change Period (Y+Rc), s		5.0		5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		12.0		33.0		12.0	9.0	20.0				
Max Q Clear Time (g_c+I1), s		14.0		15.9		14.0	8.7	19.0				
Green Ext Time (p_c), s		0.0		9.2		0.0	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
119: SR 32/Conner St & Cicero Rd

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖	↗		↖	↗
Traffic Volume (veh/h)	382	1849	0	0	2004	104	9	19	3	124	0	159
Future Volume (veh/h)	382	1849	0	0	2004	104	9	19	3	124	0	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	415	2010	0	0	2178	0	10	21	3	135	0	173
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
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	3
Cap, veh/h	381	2929	0	0	2061		37	54	145	55	0	145
Arrive On Green	0.22	0.83	0.00	0.00	0.58	0.00	0.09	0.09	0.09	0.09	0.00	0.09
Sat Flow, veh/h	1767	3618	0	0	3711	0	0	587	1572	0	0	1572
Grp Volume(v), veh/h	415	2010	0	0	2178	0	31	0	3	135	0	173
Grp Sat Flow(s),veh/h/ln	1767	1763	0	0	1763	0	587	0	1572	0	0	1572
Q Serve(g_s), s	28.0	29.2	0.0	0.0	76.0	0.0	0.0	0.0	0.2	0.0	0.0	12.0
Cycle Q Clear(g_c), s	28.0	29.2	0.0	0.0	76.0	0.0	12.0	0.0	0.2	12.0	0.0	12.0
Prop In Lane	1.00		0.00	0.00		0.00	0.32		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	2929	0	0	2061		91	0	145	55	0	145
V/C Ratio(X)	1.09	0.69	0.00	0.00	1.06		0.34	0.00	0.02	2.44	0.00	1.19
Avail Cap(c_a), veh/h	381	2929	0	0	2061		91	0	145	55	0	145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.0	4.3	0.0	0.0	27.0	0.0	54.7	0.0	53.7	65.0	0.0	59.0
Incr Delay (d2), s/veh	72.6	0.7	0.0	0.0	36.8	0.0	2.2	0.0	0.1	697.9	0.0	135.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.9	7.3	0.0	0.0	40.0	0.0	1.0	0.0	0.1	12.6	0.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.6	5.0	0.0	0.0	63.8	0.0	56.9	0.0	53.7	762.9	0.0	194.4
LnGrp LOS	F	A	A	A	F		E	A	D	F	A	F
Approach Vol, veh/h		2425			2178			34			308	
Approach Delay, s/veh		25.3			63.8			56.6			443.6	
Approach LOS		C			E			E			F	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0		113.0		17.0	32.0	81.0				
Change Period (Y+Rc), s		5.0		5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		12.0		108.0		12.0	28.0	76.0				
Max Q Clear Time (g_c+I1), s		14.0		31.2		14.0	30.0	78.0				
Green Ext Time (p_c), s		0.0		34.9		0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	68.5
HCM 6th LOS	E

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
119: SR 32/Conner St & Cicero Rd

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖	↗		↖	↗
Traffic Volume (veh/h)	382	1849	0	0	2004	104	9	19	3	124	0	159
Future Volume (veh/h)	382	1849	0	0	2004	104	9	19	3	124	0	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	415	2010	0	0	2178	0	10	21	3	135	0	173
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
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	3
Cap, veh/h	381	2929	0	0	2061		37	54	145	55	0	145
Arrive On Green	0.22	0.83	0.00	0.00	0.58	0.00	0.09	0.09	0.09	0.09	0.00	0.09
Sat Flow, veh/h	1767	3618	0	0	3711	0	0	587	1572	0	0	1572
Grp Volume(v), veh/h	415	2010	0	0	2178	0	31	0	3	135	0	173
Grp Sat Flow(s),veh/h/ln	1767	1763	0	0	1763	0	587	0	1572	0	0	1572
Q Serve(g_s), s	28.0	29.2	0.0	0.0	76.0	0.0	0.0	0.0	0.2	0.0	0.0	12.0
Cycle Q Clear(g_c), s	28.0	29.2	0.0	0.0	76.0	0.0	12.0	0.0	0.2	12.0	0.0	12.0
Prop In Lane	1.00		0.00	0.00		0.00	0.32		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	2929	0	0	2061		91	0	145	55	0	145
V/C Ratio(X)	1.09	0.69	0.00	0.00	1.06		0.34	0.00	0.02	2.44	0.00	1.19
Avail Cap(c_a), veh/h	381	2929	0	0	2061		91	0	145	55	0	145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.0	4.3	0.0	0.0	27.0	0.0	54.7	0.0	53.7	65.0	0.0	59.0
Incr Delay (d2), s/veh	72.6	0.7	0.0	0.0	36.8	0.0	2.2	0.0	0.1	697.9	0.0	135.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.9	7.3	0.0	0.0	40.0	0.0	1.0	0.0	0.1	12.6	0.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.6	5.0	0.0	0.0	63.8	0.0	56.9	0.0	53.7	762.9	0.0	194.4
LnGrp LOS	F	A	A	A	F		E	A	D	F	A	F
Approach Vol, veh/h		2425			2178			34			308	
Approach Delay, s/veh		25.3			63.8			56.6			443.6	
Approach LOS		C			E			E			F	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0		113.0		17.0	32.0	81.0				
Change Period (Y+Rc), s		5.0		5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		12.0		108.0		12.0	28.0	76.0				
Max Q Clear Time (g_c+I1), s		14.0		31.2		14.0	30.0	78.0				
Green Ext Time (p_c), s		0.0		34.9		0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	68.5
HCM 6th LOS	E

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
119: SR 32/Conner St & Cicero Rd

Future AM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕			↕↕			↕	↕		↕	↕
Traffic Volume (veh/h)	139	1143	0	0	1166	36	0	0	0	240	18	309
Future Volume (veh/h)	139	1143	0	0	1166	36	0	0	0	240	18	309
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	151	1242	0	0	1267	0	0	0	0	261	20	336
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
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	3
Cap, veh/h	380	2026	0	0	1389		0	466	395	455	26	395
Arrive On Green	0.11	0.57	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.25	0.25	0.25
Sat Flow, veh/h	3428	3618	0	0	3711	0	0	1856	1572	1329	102	1572
Grp Volume(v), veh/h	151	1242	0	0	1267	0	0	0	0	281	0	336
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	0	0	1856	1572	1431	0	1572
Q Serve(g_s), s	2.4	13.3	0.0	0.0	19.5	0.0	0.0	0.0	0.0	10.5	0.0	11.7
Cycle Q Clear(g_c), s	2.4	13.3	0.0	0.0	19.5	0.0	0.0	0.0	0.0	10.5	0.0	11.7
Prop In Lane	1.00		0.00	0.00		0.00	0.00		1.00	0.93		1.00
Lane Grp Cap(c), veh/h	380	2026	0	0	1389		0	466	395	480	0	395
V/C Ratio(X)	0.40	0.61	0.00	0.00	0.91		0.00	0.00	0.00	0.59	0.00	0.85
Avail Cap(c_a), veh/h	418	2088	0	0	1412		0	517	438	520	0	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.7	8.0	0.0	0.0	16.4	0.0	0.0	0.0	0.0	20.0	0.0	20.5
Incr Delay (d2), s/veh	0.7	0.5	0.0	0.0	9.1	0.0	0.0	0.0	0.0	1.5	0.0	13.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.7	0.0	0.0	8.2	0.0	0.0	0.0	0.0	3.4	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.4	8.5	0.0	0.0	25.6	0.0	0.0	0.0	0.0	21.5	0.0	34.2
LnGrp LOS	C	A			C					C		C
Approach Vol, veh/h		1393			1267			0				617
Approach Delay, s/veh		10.2			25.6			0.0				28.4
Approach LOS		B			C							C
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		19.4		38.0		19.4	10.4	27.6				
Change Period (Y+Rc), s		5.0		5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		16.0		34.0		16.0	7.0	23.0				
Max Q Clear Time (g_c+I1), s		0.0		15.3		13.7	4.4	21.5				
Green Ext Time (p_c), s		0.0		8.8		0.7	0.1	1.1				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	19.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
119: SR 32/Conner St & Cicero Rd

Future PM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕			↕↕			↕	↕		↕	↕
Traffic Volume (veh/h)	382	1849	0	0	2004	104	9	19	3	124	0	159
Future Volume (veh/h)	382	1849	0	0	2004	104	9	19	3	124	0	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	415	2010	0	0	2178	0	10	21	3	135	0	173
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
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	3
Cap, veh/h	406	2787	0	0	2241		43	65	186	66	0	186
Arrive On Green	0.12	0.79	0.00	0.00	0.64	0.00	0.12	0.12	0.12	0.12	0.00	0.12
Sat Flow, veh/h	3428	3618	0	0	3711	0	0	552	1572	0	0	1572
Grp Volume(v), veh/h	415	2010	0	0	2178	0	31	0	3	135	0	173
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	0	552	0	1572	0	0	1572
Q Serve(g_s), s	13.0	30.5	0.0	0.0	64.7	0.0	0.0	0.0	0.2	0.0	0.0	12.0
Cycle Q Clear(g_c), s	13.0	30.5	0.0	0.0	64.7	0.0	13.0	0.0	0.2	13.0	0.0	12.0
Prop In Lane	1.00		0.00	0.00		0.00	0.32		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	406	2787	0	0	2241		109	0	186	66	0	186
V/C Ratio(X)	1.02	0.72	0.00	0.00	0.97		0.29	0.00	0.02	2.06	0.00	0.93
Avail Cap(c_a), veh/h	406	2794	0	0	2248		109	0	186	66	0	186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.4	5.6	0.0	0.0	19.1	0.0	43.8	0.0	42.7	54.9	0.0	47.9
Incr Delay (d2), s/veh	50.4	0.9	0.0	0.0	13.0	0.0	1.4	0.0	0.0	524.7	0.0	46.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	8.0	0.0	0.0	26.8	0.0	0.8	0.0	0.1	11.4	0.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	98.8	6.5	0.0	0.0	32.1	0.0	45.2	0.0	42.8	579.6	0.0	94.0
LnGrp LOS	F	A			C		D		D	F		F
Approach Vol, veh/h		2425			2178			34				308
Approach Delay, s/veh		22.3			32.1			45.0				306.8
Approach LOS		C			C			D				F
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		18.0		91.8		18.0	17.0	74.8				
Change Period (Y+Rc), s		5.0		5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		13.0		87.0		13.0	13.0	70.0				
Max Q Clear Time (g_c+I1), s		15.0		32.5		15.0	15.0	66.7				
Green Ext Time (p_c), s		0.0		29.9		0.0	0.0	3.1				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	44.5
HCM 6th LOS	D

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
 120: 10th St & SR 32/Conner St

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	6	400	44	19	644	28	104	161	31	56	196	13
Future Volume (veh/h)	6	400	44	19	644	28	104	161	31	56	196	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	7	435	48	21	700	30	113	175	34	61	213	14
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	180	725	80	344	780	33	420	578	112	371	362	24
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.10	0.38	0.38	0.21	0.21	0.21
Sat Flow, veh/h	720	1642	181	905	1766	76	1767	1509	293	1163	1722	113
Grp Volume(v), veh/h	7	0	483	21	0	730	113	0	209	61	0	227
Grp Sat Flow(s),veh/h/ln	720	0	1823	905	0	1842	1767	0	1803	1163	0	1835
Q Serve(g_s), s	0.5	0.0	11.5	1.0	0.0	20.9	2.5	0.0	4.6	2.5	0.0	6.4
Cycle Q Clear(g_c), s	21.4	0.0	11.5	12.5	0.0	20.9	2.5	0.0	4.6	2.5	0.0	6.4
Prop In Lane	1.00		0.10	1.00		0.04	1.00		0.16	1.00		0.06
Lane Grp Cap(c), veh/h	180	0	805	344	0	814	420	0	690	371	0	386
V/C Ratio(X)	0.04	0.00	0.60	0.06	0.00	0.90	0.27	0.00	0.30	0.16	0.00	0.59
Avail Cap(c_a), veh/h	216	0	895	389	0	905	475	0	854	441	0	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	0.0	12.1	16.8	0.0	14.7	13.6	0.0	12.3	18.8	0.0	20.3
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.1	0.0	10.9	0.3	0.0	0.2	0.2	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.1	0.2	0.0	9.7	1.0	0.0	1.7	0.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	0.0	13.0	16.9	0.0	25.6	14.0	0.0	12.5	19.0	0.0	21.7
LnGrp LOS	C	A	B	B	A	C	B	A	B	B	A	C
Approach Vol, veh/h		490			751			322			288	
Approach Delay, s/veh		13.2			25.4			13.0			21.1	
Approach LOS		B			C			B			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		26.8		30.2	9.8	17.0		30.2				
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s		27.0		28.0	7.6	15.4		28.0				
Max Q Clear Time (g_c+I1), s		6.6		23.4	4.5	8.4		22.9				
Green Ext Time (p_c), s		1.2		1.3	0.1	0.8		2.3				

Intersection Summary

HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary  
 120: 10th St & SR 32/Conner St

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	695	93	23	548	49	188	433	36	80	222	31
Future Volume (veh/h)	33	695	93	23	548	49	188	433	36	80	222	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	755	101	25	596	53	204	471	39	87	241	34
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	278	811	108	138	850	76	345	609	50	196	327	46
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.10	0.36	0.36	0.21	0.21	0.21
Sat Flow, veh/h	776	1603	214	640	1679	149	1767	1690	140	883	1591	224
Grp Volume(v), veh/h	36	0	856	25	0	649	204	0	510	87	0	275
Grp Sat Flow(s),veh/h/ln	776	0	1817	640	0	1829	1767	0	1830	883	0	1815
Q Serve(g_s), s	2.8	0.0	33.0	2.8	0.0	20.4	6.5	0.0	18.5	7.3	0.0	10.6
Cycle Q Clear(g_c), s	23.1	0.0	33.0	35.8	0.0	20.4	6.5	0.0	18.5	14.2	0.0	10.6
Prop In Lane	1.00		0.12	1.00		0.08	1.00		0.08	1.00		0.12
Lane Grp Cap(c), veh/h	278	0	919	138	0	925	345	0	660	196	0	373
V/C Ratio(X)	0.13	0.00	0.93	0.18	0.00	0.70	0.59	0.00	0.77	0.44	0.00	0.74
Avail Cap(c_a), veh/h	279	0	922	139	0	928	345	0	660	196	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	17.3	34.0	0.0	14.2	20.1	0.0	21.2	32.7	0.0	27.9
Incr Delay (d2), s/veh	0.2	0.0	15.6	0.6	0.0	2.4	2.7	0.0	5.7	1.6	0.0	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	15.9	0.5	0.0	8.0	2.8	0.0	8.6	1.6	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	32.9	34.6	0.0	16.5	22.8	0.0	26.9	34.2	0.0	35.3
LnGrp LOS	C	A	C	C	A	B	C	A	C	C	A	D
Approach Vol, veh/h		892			674			714			362	
Approach Delay, s/veh		32.5			17.2			25.7			35.1	
Approach LOS		C			B			C			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		32.0		42.9	11.6	20.4		42.9				
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s		27.0		38.0	7.6	15.4		38.0				
Max Q Clear Time (g_c+I1), s		20.5		35.0	8.5	16.2		37.8				
Green Ext Time (p_c), s		1.8		1.8	0.0	0.0		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												27.1
HCM 6th LOS												C

HCM 6th Signalized Intersection Summary  
 120: 10th St & SR 32/Conner St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	33	1290	93	23	1148	49	188	433	36	80	222	31
Future Volume (veh/h)	33	1290	93	23	1148	49	188	433	36	80	222	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	1402	101	25	1248	53	204	471	39	87	241	34
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	51	1063	77	51	1098	47	243	519	43	86	352	50
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.06	0.31	0.31	0.22	0.22	0.22
Sat Flow, veh/h	420	1710	123	346	1767	75	1767	1690	140	883	1591	224
Grp Volume(v), veh/h	36	0	1503	25	0	1301	204	0	510	87	0	275
Grp Sat Flow(s),veh/h/ln	420	0	1833	346	0	1842	1767	0	1830	883	0	1815
Q Serve(g_s), s	0.0	0.0	87.0	0.0	0.0	87.0	8.0	0.0	37.5	5.5	0.0	19.5
Cycle Q Clear(g_c), s	87.0	0.0	87.0	87.0	0.0	87.0	8.0	0.0	37.5	31.0	0.0	19.5
Prop In Lane	1.00		0.07	1.00		0.04	1.00		0.08	1.00		0.12
Lane Grp Cap(c), veh/h	51	0	1139	51	0	1145	243	0	562	86	0	402
V/C Ratio(X)	0.70	0.00	1.32	0.49	0.00	1.14	0.84	0.00	0.91	1.01	0.00	0.68
Avail Cap(c_a), veh/h	51	0	1139	51	0	1145	243	0	562	86	0	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.0	0.0	26.5	70.0	0.0	26.5	49.1	0.0	46.6	68.9	0.0	50.0
Incr Delay (d2), s/veh	34.5	0.0	149.9	6.9	0.0	72.5	22.4	0.0	18.5	99.1	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	83.0	1.0	0.0	58.8	5.0	0.0	20.0	5.5	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.5	0.0	176.4	76.9	0.0	99.0	71.5	0.0	65.1	167.9	0.0	54.7
LnGrp LOS	F	A	F	E	A	F	E	A	E	F	A	D
Approach Vol, veh/h		1539			1326			714			362	
Approach Delay, s/veh		174.7			98.6			66.9			82.0	
Approach LOS		F			F			E			F	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		48.0		92.0	12.0	36.0		92.0				
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s		43.0		87.0	8.0	31.0		87.0				
Max Q Clear Time (g_c+I1), s		39.5		89.0	10.0	33.0		89.0				
Green Ext Time (p_c), s		1.1		0.0	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												121.1
HCM 6th LOS												F



HCM 6th Signalized Intersection Summary  
 120: 10th St & SR 32/Conner St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1290	93	23	1148	49	188	433	36	80	222	31
Future Volume (veh/h)	33	1290	93	23	1148	49	188	433	36	80	222	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	1402	101	25	1248	53	204	471	39	87	241	34
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	51	1063	77	51	1098	47	243	519	43	86	352	50
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.06	0.31	0.31	0.22	0.22	0.22
Sat Flow, veh/h	420	1710	123	346	1767	75	1767	1690	140	883	1591	224
Grp Volume(v), veh/h	36	0	1503	25	0	1301	204	0	510	87	0	275
Grp Sat Flow(s),veh/h/ln	420	0	1833	346	0	1842	1767	0	1830	883	0	1815
Q Serve(g_s), s	0.0	0.0	87.0	0.0	0.0	87.0	8.0	0.0	37.5	5.5	0.0	19.5
Cycle Q Clear(g_c), s	87.0	0.0	87.0	87.0	0.0	87.0	8.0	0.0	37.5	31.0	0.0	19.5
Prop In Lane	1.00		0.07	1.00		0.04	1.00		0.08	1.00		0.12
Lane Grp Cap(c), veh/h	51	0	1139	51	0	1145	243	0	562	86	0	402
V/C Ratio(X)	0.70	0.00	1.32	0.49	0.00	1.14	0.84	0.00	0.91	1.01	0.00	0.68
Avail Cap(c_a), veh/h	51	0	1139	51	0	1145	243	0	562	86	0	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.0	0.0	26.5	70.0	0.0	26.5	49.1	0.0	46.6	68.9	0.0	50.0
Incr Delay (d2), s/veh	34.5	0.0	149.9	6.9	0.0	72.5	22.4	0.0	18.5	99.1	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8	0.0	83.0	1.0	0.0	58.8	5.0	0.0	20.0	5.5	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.5	0.0	176.4	76.9	0.0	99.0	71.5	0.0	65.1	167.9	0.0	54.7
LnGrp LOS	F	A	F	E	A	F	E	A	E	F	A	D
Approach Vol, veh/h		1539			1326			714			362	
Approach Delay, s/veh		174.7			98.6			66.9			82.0	
Approach LOS		F			F			E			F	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		48.0		92.0	12.0	36.0		92.0				
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s		43.0		87.0	8.0	31.0		87.0				
Max Q Clear Time (g_c+I1), s		39.5		89.0	10.0	33.0		89.0				
Green Ext Time (p_c), s		1.1		0.0	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												121.1
HCM 6th LOS												F

HCM 6th Signalized Intersection Summary  
 120: 10th St & SR 32/Conner St

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	981	44	19	926	28	104	161	31	56	196	13
Future Volume (veh/h)	6	981	44	19	926	28	104	161	31	56	196	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	7	1066	48	21	1007	30	113	175	34	61	213	14
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	221	1371	62	201	1395	42	463	621	121	402	392	26
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.11	0.41	0.41	0.23	0.23	0.23
Sat Flow, veh/h	540	3436	155	502	3495	104	1767	1509	293	1163	1722	113
Grp Volume(v), veh/h	7	547	567	21	508	529	113	0	209	61	0	227
Grp Sat Flow(s),veh/h/ln	540	1763	1828	502	1763	1837	1767	0	1803	1163	0	1835
Q Serve(g_s), s	0.6	14.2	14.2	2.0	12.8	12.8	2.3	0.0	4.1	2.3	0.0	5.7
Cycle Q Clear(g_c), s	13.4	14.2	14.2	16.2	12.8	12.8	2.3	0.0	4.1	2.3	0.0	5.7
Prop In Lane	1.00		0.08	1.00		0.06	1.00		0.16	1.00		0.06
Lane Grp Cap(c), veh/h	221	703	729	201	703	733	463	0	741	402	0	418
V/C Ratio(X)	0.03	0.78	0.78	0.10	0.72	0.72	0.24	0.00	0.28	0.15	0.00	0.54
Avail Cap(c_a), veh/h	241	770	798	220	770	802	528	0	924	477	0	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	13.8	13.8	20.9	13.4	13.4	11.7	0.0	10.3	16.6	0.0	17.9
Incr Delay (d2), s/veh	0.1	4.7	4.5	0.2	3.0	2.9	0.3	0.0	0.2	0.2	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.6	5.8	0.2	4.8	5.0	0.8	0.0	1.5	0.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.1	18.5	18.3	21.1	16.4	16.3	12.0	0.0	10.5	16.7	0.0	19.0
LnGrp LOS	B	B	B	C	B	B	B		B	B		B
Approach Vol, veh/h		1121			1058			322			288	
Approach Delay, s/veh		18.4			16.4			11.0			18.5	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		26.7		26.0	9.7	17.0		26.0				
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s		27.0		23.0	7.6	15.4		23.0				
Max Q Clear Time (g_c+I1), s		6.1		16.2	4.3	7.7		18.2				
Green Ext Time (p_c), s		1.2		3.9	0.1	0.9		2.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				16.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
 120: 10th St & SR 32/Conner St

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1290	93	23	1148	49	188	433	36	80	222	31
Future Volume (veh/h)	33	1290	93	23	1148	49	188	433	36	80	222	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	1402	101	25	1248	53	204	471	39	87	241	34
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	180	1526	110	139	1576	67	382	641	53	241	317	45
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.11	0.38	0.38	0.20	0.20	0.20
Sat Flow, veh/h	420	3336	239	346	3446	146	1767	1690	140	883	1591	224
Grp Volume(v), veh/h	36	738	765	25	638	663	204	0	510	87	0	275
Grp Sat Flow(s),veh/h/ln	420	1763	1812	346	1763	1829	1767	0	1830	883	0	1815
Q Serve(g_s), s	4.9	23.9	24.2	3.8	18.8	18.9	5.2	0.0	14.7	5.8	0.0	8.8
Cycle Q Clear(g_c), s	23.8	23.9	24.2	28.0	18.8	18.9	5.2	0.0	14.7	9.4	0.0	8.8
Prop In Lane	1.00		0.13	1.00		0.08	1.00		0.08	1.00		0.12
Lane Grp Cap(c), veh/h	180	806	829	139	806	837	382	0	694	241	0	361
V/C Ratio(X)	0.20	0.92	0.92	0.18	0.79	0.79	0.53	0.00	0.73	0.36	0.00	0.76
Avail Cap(c_a), veh/h	180	806	829	139	806	837	399	0	807	287	0	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	15.5	15.6	29.0	14.1	14.1	15.9	0.0	16.4	25.1	0.0	23.1
Incr Delay (d2), s/veh	0.5	15.1	15.6	0.6	5.4	5.2	1.3	0.0	3.0	0.9	0.0	5.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.5	12.0	0.4	7.5	7.8	2.1	0.0	6.1	1.2	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.8	30.6	31.2	29.6	19.5	19.4	17.2	0.0	19.3	26.1	0.0	28.8
LnGrp LOS	C	C	C	C	B	B	B		B	C		C
Approach Vol, veh/h		1539			1326			714				362
Approach Delay, s/veh		30.7			19.6			18.7				28.1
Approach LOS		C			B			B				C
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		28.2		33.0	11.0	17.2		33.0				
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s		27.0		28.0	7.6	15.4		28.0				
Max Q Clear Time (g_c+I1), s		16.7		26.2	7.2	11.4		30.0				
Green Ext Time (p_c), s		2.5		1.5	0.0	0.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh					24.6							
HCM 6th LOS					C							

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	17	13	5	11	35	4	609	4	18	411	1
Future Vol, veh/h	2	17	13	5	11	35	4	609	4	18	411	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	18	14	5	12	38	4	662	4	20	447	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1185	1162	448	1176	1160	664	448	0	0	666	0	0
Stage 1	488	488	-	672	672	-	-	-	-	-	-	-
Stage 2	697	674	-	504	488	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	165	194	609	167	195	459	1107	-	-	919	-	-
Stage 1	559	548	-	444	453	-	-	-	-	-	-	-
Stage 2	430	452	-	548	548	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	140	187	609	147	188	459	1107	-	-	919	-	-
Mov Cap-2 Maneuver	140	187	-	147	188	-	-	-	-	-	-	-
Stage 1	556	532	-	441	450	-	-	-	-	-	-	-
Stage 2	382	449	-	502	532	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.5		19.6		0.1		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1107	-	-	253	302	919	-
HCM Lane V/C Ratio	0.004	-	-	0.137	0.184	0.021	-
HCM Control Delay (s)	8.3	0	-	21.5	19.6	9	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.5	0.7	0.1	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	17	13	5	11	35	4	609	4	18	411	1
Future Vol, veh/h	2	17	13	5	11	35	4	609	4	18	411	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	18	14	5	12	38	4	662	4	20	447	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1185	1162	448	1176	1160	664	448	0	0	666	0	0
Stage 1	488	488	-	672	672	-	-	-	-	-	-	-
Stage 2	697	674	-	504	488	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	165	194	609	167	195	459	1107	-	-	919	-	-
Stage 1	559	548	-	444	453	-	-	-	-	-	-	-
Stage 2	430	452	-	548	548	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	140	187	609	147	188	459	1107	-	-	919	-	-
Mov Cap-2 Maneuver	140	187	-	147	188	-	-	-	-	-	-	-
Stage 1	556	532	-	441	450	-	-	-	-	-	-	-
Stage 2	382	449	-	502	532	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.5		19.6		0.1		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1107	-	-	253	302	919	-
HCM Lane V/C Ratio	0.004	-	-	0.137	0.184	0.021	-
HCM Control Delay (s)	8.3	0	-	21.5	19.6	9	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.5	0.7	0.1	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	17	13	5	11	35	4	609	4	18	411	1
Future Vol, veh/h	2	17	13	5	11	35	4	609	4	18	411	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	18	14	5	12	38	4	662	4	20	447	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1185	1162	448	1176	1160	664	448	0	0	666	0	0
Stage 1	488	488	-	672	672	-	-	-	-	-	-	-
Stage 2	697	674	-	504	488	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	165	194	609	167	195	459	1107	-	-	919	-	-
Stage 1	559	548	-	444	453	-	-	-	-	-	-	-
Stage 2	430	452	-	548	548	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	140	187	609	147	188	459	1107	-	-	919	-	-
Mov Cap-2 Maneuver	140	187	-	147	188	-	-	-	-	-	-	-
Stage 1	556	532	-	441	450	-	-	-	-	-	-	-
Stage 2	382	449	-	502	532	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.5		19.6		0.1		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1107	-	-	253	302	919	-
HCM Lane V/C Ratio	0.004	-	-	0.137	0.184	0.021	-
HCM Control Delay (s)	8.3	0	-	21.5	19.6	9	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.5	0.7	0.1	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	17	13	5	11	35	4	609	4	18	411	1
Future Vol, veh/h	2	17	13	5	11	35	4	609	4	18	411	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	18	14	5	12	38	4	662	4	20	447	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1185	1162	448	1176	1160	664	448	0	0	666	0	0
Stage 1	488	488	-	672	672	-	-	-	-	-	-	-
Stage 2	697	674	-	504	488	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	165	194	609	167	195	459	1107	-	-	919	-	-
Stage 1	559	548	-	444	453	-	-	-	-	-	-	-
Stage 2	430	452	-	548	548	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	140	187	609	147	188	459	1107	-	-	919	-	-
Mov Cap-2 Maneuver	140	187	-	147	188	-	-	-	-	-	-	-
Stage 1	556	532	-	441	450	-	-	-	-	-	-	-
Stage 2	382	449	-	502	532	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.5		19.6		0.1		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1107	-	-	253	302	919	-
HCM Lane V/C Ratio	0.004	-	-	0.137	0.184	0.021	-
HCM Control Delay (s)	8.3	0	-	21.5	19.6	9	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.5	0.7	0.1	-

HCM 6th Signalized Intersection Summary  
 122: 16th St & Conner St

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	765	2	1	603	74	3	39	5	123	78	9
Future Volume (veh/h)	21	765	2	1	603	74	3	39	5	123	78	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	832	2	1	655	80	3	42	5	134	85	10
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	311	987	2	254	865	106	90	402	45	318	177	17
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	716	1850	4	653	1622	198	29	1600	181	777	706	68
Grp Volume(v), veh/h	23	0	834	1	0	735	50	0	0	229	0	0
Grp Sat Flow(s),veh/h/ln	716	0	1855	653	0	1820	1810	0	0	1551	0	0
Q Serve(g_s), s	1.2	0.0	17.7	0.1	0.0	14.7	0.0	0.0	0.0	4.4	0.0	0.0
Cycle Q Clear(g_c), s	15.9	0.0	17.7	17.8	0.0	14.7	1.0	0.0	0.0	5.8	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.11	0.06		0.10	0.59		0.04
Lane Grp Cap(c), veh/h	311	0	989	254	0	971	537	0	0	513	0	0
V/C Ratio(X)	0.07	0.00	0.84	0.00	0.00	0.76	0.09	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	422	0	1278	356	0	1254	588	0	0	556	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.7	0.0	9.2	16.7	0.0	8.5	13.4	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2	0.0	0.0	2.0	0.1	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	5.9	0.0	0.0	4.4	0.4	0.0	0.0	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	0.0	13.4	16.7	0.0	10.5	13.5	0.0	0.0	15.7	0.0	0.0
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		857			736			50			229	
Approach Delay, s/veh		13.4			10.5			13.5			15.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.7		29.8		16.7		29.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		13.0		32.0		13.0		32.0				
Max Q Clear Time (g_c+I1), s		3.0		19.7		7.8		19.8				
Green Ext Time (p_c), s		0.1		5.1		0.6		4.2				

Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B



HCM 6th Signalized Intersection Summary  
 122: 16th St & Conner St

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	765	2	1	603	74	3	39	5	123	78	9
Future Volume (veh/h)	21	765	2	1	603	74	3	39	5	123	78	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	832	2	1	655	80	3	42	5	134	85	10
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	311	987	2	254	865	106	90	402	45	318	177	17
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	716	1850	4	653	1622	198	29	1600	181	777	706	68
Grp Volume(v), veh/h	23	0	834	1	0	735	50	0	0	229	0	0
Grp Sat Flow(s),veh/h/ln	716	0	1855	653	0	1820	1810	0	0	1551	0	0
Q Serve(g_s), s	1.2	0.0	17.7	0.1	0.0	14.7	0.0	0.0	0.0	4.4	0.0	0.0
Cycle Q Clear(g_c), s	15.9	0.0	17.7	17.8	0.0	14.7	1.0	0.0	0.0	5.8	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.11	0.06		0.10	0.59		0.04
Lane Grp Cap(c), veh/h	311	0	989	254	0	971	537	0	0	513	0	0
V/C Ratio(X)	0.07	0.00	0.84	0.00	0.00	0.76	0.09	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	422	0	1278	356	0	1254	588	0	0	556	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.7	0.0	9.2	16.7	0.0	8.5	13.4	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2	0.0	0.0	2.0	0.1	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	5.9	0.0	0.0	4.4	0.4	0.0	0.0	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	0.0	13.4	16.7	0.0	10.5	13.5	0.0	0.0	15.7	0.0	0.0
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		857			736			50			229	
Approach Delay, s/veh		13.4			10.5			13.5			15.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.7		29.8		16.7		29.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		13.0		32.0		13.0		32.0				
Max Q Clear Time (g_c+I1), s		3.0		19.7		7.8		19.8				
Green Ext Time (p_c), s		0.1		5.1		0.6		4.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
122: 16th St & Conner St




















Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1360	2	1	1203	74	3	39	5	123	78	9
Future Volume (veh/h)	21	1360	2	1	1203	74	3	39	5	123	78	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	1478	2	1	1308	80	3	42	5	134	85	10
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	89	1439	2	55	1345	82	34	235	27	177	85	10
Arrive On Green	0.78	0.78	0.78	0.78	0.78	0.78	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	387	1853	3	354	1731	106	32	1609	182	912	579	68
Grp Volume(v), veh/h	23	0	1480	1	0	1388	50	0	0	229	0	0
Grp Sat Flow(s),veh/h/ln	387	0	1855	354	0	1836	1823	0	0	1559	0	0
Q Serve(g_s), s	7.5	0.0	101.0	0.0	0.0	89.8	0.0	0.0	0.0	15.9	0.0	0.0
Cycle Q Clear(g_c), s	97.3	0.0	101.0	101.0	0.0	89.8	3.1	0.0	0.0	19.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.06	0.06		0.10	0.59		0.04
Lane Grp Cap(c), veh/h	89	0	1441	55	0	1427	296	0	0	272	0	0
V/C Ratio(X)	0.26	0.00	1.03	0.02	0.00	0.97	0.17	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	89	0	1441	55	0	1427	296	0	0	272	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.7	0.0	14.5	65.0	0.0	13.2	48.7	0.0	0.0	55.3	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	30.8	0.1	0.0	17.7	0.3	0.0	0.0	20.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	45.7	0.0	0.0	36.3	1.5	0.0	0.0	9.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	0.0	45.3	65.1	0.0	30.9	49.0	0.0	0.0	76.0	0.0	0.0
LnGrp LOS	E	A	F	E	A	C	D	A	A	E	A	A
Approach Vol, veh/h		1503			1389			50			229	
Approach Delay, s/veh		45.5			30.9			49.0			76.0	
Approach LOS		D			C			D			E	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.0		106.0		24.0		106.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		19.0		101.0		19.0		101.0				
Max Q Clear Time (g_c+I1), s		5.1		103.0		21.0		103.0				
Green Ext Time (p_c), s		0.1		0.0		0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				41.4								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary  
122: 16th St & Conner St

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1360	2	1	1203	74	3	39	5	123	78	9
Future Volume (veh/h)	21	1360	2	1	1203	74	3	39	5	123	78	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	1478	2	1	1308	80	3	42	5	134	85	10
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	89	1439	2	55	1345	82	34	235	27	177	85	10
Arrive On Green	0.78	0.78	0.78	0.78	0.78	0.78	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	387	1853	3	354	1731	106	32	1609	182	912	579	68
Grp Volume(v), veh/h	23	0	1480	1	0	1388	50	0	0	229	0	0
Grp Sat Flow(s),veh/h/ln	387	0	1855	354	0	1836	1823	0	0	1559	0	0
Q Serve(g_s), s	7.5	0.0	101.0	0.0	0.0	89.8	0.0	0.0	0.0	15.9	0.0	0.0
Cycle Q Clear(g_c), s	97.3	0.0	101.0	101.0	0.0	89.8	3.1	0.0	0.0	19.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.06	0.06		0.10	0.59		0.04
Lane Grp Cap(c), veh/h	89	0	1441	55	0	1427	296	0	0	272	0	0
V/C Ratio(X)	0.26	0.00	1.03	0.02	0.00	0.97	0.17	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	89	0	1441	55	0	1427	296	0	0	272	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.7	0.0	14.5	65.0	0.0	13.2	48.7	0.0	0.0	55.3	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	30.8	0.1	0.0	17.7	0.3	0.0	0.0	20.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	45.7	0.0	0.0	36.3	1.5	0.0	0.0	9.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	0.0	45.3	65.1	0.0	30.9	49.0	0.0	0.0	76.0	0.0	0.0
LnGrp LOS	E	A	F	E	A	C	D	A	A	E	A	A
Approach Vol, veh/h		1503			1389			50			229	
Approach Delay, s/veh		45.5			30.9			49.0			76.0	
Approach LOS		D			C			D			E	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.0		106.0		24.0		106.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		19.0		101.0		19.0		101.0				
Max Q Clear Time (g_c+I1), s		5.1		103.0		21.0		103.0				
Green Ext Time (p_c), s		0.1		0.0		0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				41.4								
HCM 6th LOS				D								

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	39	0	0	55	14	0	3	0	43	21	1
Future Vol, veh/h	0	39	0	0	55	14	0	3	0	43	21	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	42	0	0	60	15	0	3	0	47	23	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	42	0	0	122	117	42	112	110	68
Stage 1	-	-	-	-	-	-	42	42	-	68	68	-
Stage 2	-	-	-	-	-	-	80	75	-	44	42	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1518	-	-	1561	-	-	850	771	1026	863	778	992
Stage 1	-	-	-	-	-	-	970	858	-	940	836	-
Stage 2	-	-	-	-	-	-	926	831	-	968	858	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1518	-	-	1561	-	-	830	771	1026	860	778	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	771	-	860	778	-
Stage 1	-	-	-	-	-	-	970	858	-	940	836	-
Stage 2	-	-	-	-	-	-	900	831	-	964	858	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.7			9.7		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	771	1518	-	-	1561	-	-	833
HCM Lane V/C Ratio	0.004	-	-	-	-	-	-	0.085
HCM Control Delay (s)	9.7	0	-	-	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	39	0	0	55	14	0	3	0	43	21	1
Future Vol, veh/h	0	39	0	0	55	14	0	3	0	43	21	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	42	0	0	60	15	0	3	0	47	23	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	42	0	0	122	117	42	112	110	68
Stage 1	-	-	-	-	-	-	42	42	-	68	68	-
Stage 2	-	-	-	-	-	-	80	75	-	44	42	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1518	-	-	1561	-	-	850	771	1026	863	778	992
Stage 1	-	-	-	-	-	-	970	858	-	940	836	-
Stage 2	-	-	-	-	-	-	926	831	-	968	858	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1518	-	-	1561	-	-	830	771	1026	860	778	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	771	-	860	778	-
Stage 1	-	-	-	-	-	-	970	858	-	940	836	-
Stage 2	-	-	-	-	-	-	900	831	-	964	858	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.7			9.7		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	771	1518	-	-	1561	-	-	833
HCM Lane V/C Ratio	0.004	-	-	-	-	-	-	0.085
HCM Control Delay (s)	9.7	0	-	-	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	39	0	0	55	14	0	3	0	43	21	1
Future Vol, veh/h	0	39	0	0	55	14	0	3	0	43	21	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	42	0	0	60	15	0	3	0	47	23	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	42	0	0	122	117	42	112	110	68
Stage 1	-	-	-	-	-	-	42	42	-	68	68	-
Stage 2	-	-	-	-	-	-	80	75	-	44	42	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1518	-	-	1561	-	-	850	771	1026	863	778	992
Stage 1	-	-	-	-	-	-	970	858	-	940	836	-
Stage 2	-	-	-	-	-	-	926	831	-	968	858	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1518	-	-	1561	-	-	830	771	1026	860	778	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	771	-	860	778	-
Stage 1	-	-	-	-	-	-	970	858	-	940	836	-
Stage 2	-	-	-	-	-	-	900	831	-	964	858	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.7			9.7		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	771	1518	-	-	1561	-	-	833
HCM Lane V/C Ratio	0.004	-	-	-	-	-	-	0.085
HCM Control Delay (s)	9.7	0	-	-	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	39	0	0	55	14	0	3	0	43	21	1
Future Vol, veh/h	0	39	0	0	55	14	0	3	0	43	21	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	42	0	0	60	15	0	3	0	47	23	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	42	0	0	122	117	42	112	110	68
Stage 1	-	-	-	-	-	-	42	42	-	68	68	-
Stage 2	-	-	-	-	-	-	80	75	-	44	42	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1518	-	-	1561	-	-	850	771	1026	863	778	992
Stage 1	-	-	-	-	-	-	970	858	-	940	836	-
Stage 2	-	-	-	-	-	-	926	831	-	968	858	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1518	-	-	1561	-	-	830	771	1026	860	778	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	771	-	860	778	-
Stage 1	-	-	-	-	-	-	970	858	-	940	836	-
Stage 2	-	-	-	-	-	-	900	831	-	964	858	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.7			9.7		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	771	1518	-	-	1561	-	-	833
HCM Lane V/C Ratio	0.004	-	-	-	-	-	-	0.085
HCM Control Delay (s)	9.7	0	-	-	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

HCM 6th Signalized Intersection Summary  
 124: 19th St & Conner St/SR 32/38

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	18	764	45	22	598	52	138	24	74	45	26	24
Future Volume (veh/h)	18	764	45	22	598	52	138	24	74	45	26	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	20	830	49	24	650	57	150	26	80	49	28	26
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	381	969	57	241	1036	878	433	96	296	384	212	197
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	735	1735	102	626	1856	1572	1339	401	1233	1278	885	822
Grp Volume(v), veh/h	20	0	879	24	650	57	150	0	106	49	0	54
Grp Sat Flow(s),veh/h/ln	735	0	1837	626	1856	1572	1339	0	1634	1278	0	1708
Q Serve(g_s), s	0.9	0.0	20.1	1.7	11.8	0.8	4.9	0.0	2.6	1.6	0.0	1.2
Cycle Q Clear(g_c), s	12.8	0.0	20.1	21.8	11.8	0.8	6.1	0.0	2.6	4.2	0.0	1.2
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.75	1.00		0.48
Lane Grp Cap(c), veh/h	381	0	1026	241	1036	878	433	0	392	384	0	410
V/C Ratio(X)	0.05	0.00	0.86	0.10	0.63	0.06	0.35	0.00	0.27	0.13	0.00	0.13
Avail Cap(c_a), veh/h	503	0	1332	346	1345	1140	489	0	461	438	0	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	9.3	18.5	7.4	5.0	17.2	0.0	15.3	17.1	0.0	14.8
Incr Delay (d2), s/veh	0.1	0.0	4.6	0.2	0.6	0.0	0.5	0.0	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	6.4	0.2	3.2	0.2	1.4	0.0	0.9	0.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	0.0	13.8	18.7	8.1	5.0	17.7	0.0	15.7	17.2	0.0	15.0
LnGrp LOS	B	A	B	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h		899			731			256				103
Approach Delay, s/veh		13.8			8.2			16.9				16.0
Approach LOS		B			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.9		32.7		16.9		32.7				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		14.0		36.0		14.0		36.0				
Max Q Clear Time (g_c+I1), s		8.1		22.1		6.2		23.8				
Green Ext Time (p_c), s		0.5		5.6		0.2		3.7				

Intersection Summary

HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B



HCM 6th Signalized Intersection Summary  
 124: 19th St & Conner St/SR 32/38























Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	18	764	45	22	598	52	138	24	74	45	26	24
Future Volume (veh/h)	18	764	45	22	598	52	138	24	74	45	26	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	20	830	49	24	650	57	150	26	80	49	28	26
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	381	969	57	241	1036	878	433	96	296	384	212	197
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	735	1735	102	626	1856	1572	1339	401	1233	1278	885	822
Grp Volume(v), veh/h	20	0	879	24	650	57	150	0	106	49	0	54
Grp Sat Flow(s),veh/h/ln	735	0	1837	626	1856	1572	1339	0	1634	1278	0	1708
Q Serve(g_s), s	0.9	0.0	20.1	1.7	11.8	0.8	4.9	0.0	2.6	1.6	0.0	1.2
Cycle Q Clear(g_c), s	12.8	0.0	20.1	21.8	11.8	0.8	6.1	0.0	2.6	4.2	0.0	1.2
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.75	1.00		0.48
Lane Grp Cap(c), veh/h	381	0	1026	241	1036	878	433	0	392	384	0	410
V/C Ratio(X)	0.05	0.00	0.86	0.10	0.63	0.06	0.35	0.00	0.27	0.13	0.00	0.13
Avail Cap(c_a), veh/h	503	0	1332	346	1345	1140	489	0	461	438	0	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	9.3	18.5	7.4	5.0	17.2	0.0	15.3	17.1	0.0	14.8
Incr Delay (d2), s/veh	0.1	0.0	4.6	0.2	0.6	0.0	0.5	0.0	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	6.4	0.2	3.2	0.2	1.4	0.0	0.9	0.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	0.0	13.8	18.7	8.1	5.0	17.7	0.0	15.7	17.2	0.0	15.0
LnGrp LOS	B	A	B	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h		899			731			256				103
Approach Delay, s/veh		13.8			8.2			16.9				16.0
Approach LOS		B			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.9		32.7		16.9		32.7				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		14.0		36.0		14.0		36.0				
Max Q Clear Time (g_c+I1), s		8.1		22.1		6.2		23.8				
Green Ext Time (p_c), s		0.5		5.6		0.2		3.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.2								
HCM 6th LOS				B								























HCM 6th Signalized Intersection Summary  
 124: 19th St & Conner St/SR 32/38

Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	1359	45	22	1198	52	138	24	74	45	26	24
Future Volume (veh/h)	18	1359	45	22	1198	52	138	24	74	45	26	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	20	1477	49	24	1302	57	150	26	80	49	28	26
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	201	1454	48	51	1511	1280	166	46	141	119	101	94
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	397	1786	59	339	1856	1572	1339	401	1233	1278	885	822
Grp Volume(v), veh/h	20	0	1526	24	1302	57	150	0	106	49	0	54
Grp Sat Flow(s),veh/h/ln	397	0	1845	339	1856	1572	1339	0	1634	1278	0	1708
Q Serve(g_s), s	4.6	0.0	114.0	0.0	61.2	1.0	12.0	0.0	8.6	5.3	0.0	4.0
Cycle Q Clear(g_c), s	65.8	0.0	114.0	114.0	61.2	1.0	16.0	0.0	8.6	13.9	0.0	4.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.75	1.00		0.48
Lane Grp Cap(c), veh/h	201	0	1502	51	1511	1280	166	0	187	119	0	195
V/C Ratio(X)	0.10	0.00	1.02	0.47	0.86	0.04	0.90	0.00	0.57	0.41	0.00	0.28
Avail Cap(c_a), veh/h	201	0	1502	51	1511	1280	166	0	187	119	0	195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	13.0	70.0	8.1	2.5	65.4	0.0	58.7	65.3	0.0	56.7
Incr Delay (d2), s/veh	0.2	0.0	27.2	6.4	5.4	0.0	43.6	0.0	4.0	2.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	44.6	1.0	20.2	0.2	7.4	0.0	3.8	1.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	0.0	40.2	76.4	13.4	2.5	109.0	0.0	62.7	67.6	0.0	57.5
LnGrp LOS	C	A	F	E	B	A	F	A	E	E	A	E
Approach Vol, veh/h		1546			1383			256			103	
Approach Delay, s/veh		40.1			14.1			89.9			62.3	
Approach LOS		D			B			F			E	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.0		119.0		21.0		119.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		16.0		114.0		16.0		114.0				
Max Q Clear Time (g_c+I1), s		18.0		116.0		15.9		116.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
 124: 19th St & Conner St/SR 32/38

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	1359	45	22	1198	52	138	24	74	45	26	24
Future Volume (veh/h)	18	1359	45	22	1198	52	138	24	74	45	26	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	20	1477	49	24	1302	57	150	26	80	49	28	26
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	201	1454	48	51	1511	1280	166	46	141	119	101	94
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	397	1786	59	339	1856	1572	1339	401	1233	1278	885	822
Grp Volume(v), veh/h	20	0	1526	24	1302	57	150	0	106	49	0	54
Grp Sat Flow(s),veh/h/ln	397	0	1845	339	1856	1572	1339	0	1634	1278	0	1708
Q Serve(g_s), s	4.6	0.0	114.0	0.0	61.2	1.0	12.0	0.0	8.6	5.3	0.0	4.0
Cycle Q Clear(g_c), s	65.8	0.0	114.0	114.0	61.2	1.0	16.0	0.0	8.6	13.9	0.0	4.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.75	1.00		0.48
Lane Grp Cap(c), veh/h	201	0	1502	51	1511	1280	166	0	187	119	0	195
V/C Ratio(X)	0.10	0.00	1.02	0.47	0.86	0.04	0.90	0.00	0.57	0.41	0.00	0.28
Avail Cap(c_a), veh/h	201	0	1502	51	1511	1280	166	0	187	119	0	195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	13.0	70.0	8.1	2.5	65.4	0.0	58.7	65.3	0.0	56.7
Incr Delay (d2), s/veh	0.2	0.0	27.2	6.4	5.4	0.0	43.6	0.0	4.0	2.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	44.6	1.0	20.2	0.2	7.4	0.0	3.8	1.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	0.0	40.2	76.4	13.4	2.5	109.0	0.0	62.7	67.6	0.0	57.5
LnGrp LOS	C	A	F	E	B	A	F	A	E	E	A	E
Approach Vol, veh/h		1546			1383			256			103	
Approach Delay, s/veh		40.1			14.1			89.9			62.3	
Approach LOS		D			B			F			E	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.0		119.0		21.0		119.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		16.0		114.0		16.0		114.0				
Max Q Clear Time (g_c+I1), s		18.0		116.0		15.9		116.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.7								
HCM 6th LOS				C								

<b>Intersection</b>												
Intersection Delay, s/veh	9.4											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	63	12	33	64	66	4	154	60	61	70	0
Future Vol, veh/h	11	63	12	33	64	66	4	154	60	61	70	0
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	68	13	36	70	72	4	167	65	66	76	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	9.3	9.7	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	13%	20%	47%
Vol Thru, %	71%	73%	39%	53%
Vol Right, %	28%	14%	40%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	86	163	131
LT Vol	4	11	33	61
Through Vol	154	63	64	70
RT Vol	60	12	66	0
Lane Flow Rate	237	93	177	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.305	0.13	0.235	0.197
Departure Headway (Hd)	4.628	5.025	4.772	4.987
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	708	748	715
Service Time	2.684	3.096	2.834	3.051
HCM Lane V/C Ratio	0.307	0.131	0.237	0.199
HCM Control Delay	9.7	8.9	9.3	9.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.4	0.9	0.7

Intersection												
Intersection Delay, s/veh	9.4											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	63	12	33	64	66	4	154	60	61	70	0
Future Vol, veh/h	11	63	12	33	64	66	4	154	60	61	70	0
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	68	13	36	70	72	4	167	65	66	76	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	9.3	9.7	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	13%	20%	47%
Vol Thru, %	71%	73%	39%	53%
Vol Right, %	28%	14%	40%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	86	163	131
LT Vol	4	11	33	61
Through Vol	154	63	64	70
RT Vol	60	12	66	0
Lane Flow Rate	237	93	177	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.305	0.13	0.235	0.197
Departure Headway (Hd)	4.628	5.025	4.772	4.987
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	708	748	715
Service Time	2.684	3.096	2.834	3.051
HCM Lane V/C Ratio	0.307	0.131	0.237	0.199
HCM Control Delay	9.7	8.9	9.3	9.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.4	0.9	0.7

Intersection												
Intersection Delay, s/veh	9.4											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	63	12	33	64	66	4	154	60	61	70	0
Future Vol, veh/h	11	63	12	33	64	66	4	154	60	61	70	0
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	68	13	36	70	72	4	167	65	66	76	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	9.3	9.7	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	13%	20%	47%
Vol Thru, %	71%	73%	39%	53%
Vol Right, %	28%	14%	40%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	86	163	131
LT Vol	4	11	33	61
Through Vol	154	63	64	70
RT Vol	60	12	66	0
Lane Flow Rate	237	93	177	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.305	0.13	0.235	0.197
Departure Headway (Hd)	4.628	5.025	4.772	4.987
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	708	748	715
Service Time	2.684	3.096	2.834	3.051
HCM Lane V/C Ratio	0.307	0.131	0.237	0.199
HCM Control Delay	9.7	8.9	9.3	9.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.4	0.9	0.7

**Intersection**

Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	63	12	33	64	66	4	154	60	61	70	0
Future Vol, veh/h	11	63	12	33	64	66	4	154	60	61	70	0
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	68	13	36	70	72	4	167	65	66	76	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	9.3	9.7	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	13%	20%	47%
Vol Thru, %	71%	73%	39%	53%
Vol Right, %	28%	14%	40%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	86	163	131
LT Vol	4	11	33	61
Through Vol	154	63	64	70
RT Vol	60	12	66	0
Lane Flow Rate	237	93	177	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.305	0.13	0.235	0.197
Departure Headway (Hd)	4.628	5.025	4.772	4.987
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	708	748	715
Service Time	2.684	3.096	2.834	3.051
HCM Lane V/C Ratio	0.307	0.131	0.237	0.199
HCM Control Delay	9.7	8.9	9.3	9.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.4	0.9	0.7

HCM 6th Signalized Intersection Summary  
126: Cumberland Rd & SR 32/38

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↕	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	90	718	80	13	625	181	96	295	87	135	163	69
Future Volume (veh/h)	90	718	80	13	625	181	96	295	87	135	163	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	780	87	14	679	197	104	321	95	147	177	75
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	144	1026	124	72	1154	331	450	384	326	357	405	343
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.10	0.21	0.21	0.11	0.22	0.22
Sat Flow, veh/h	154	2322	279	17	2611	748	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	455	0	510	481	0	409	104	321	95	147	177	75
Grp Sat Flow(s),veh/h/ln	1118	0	1638	1822	0	1554	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	11.4	0.0	14.6	0.0	0.0	11.6	2.5	9.6	3.0	3.6	4.8	2.3
Cycle Q Clear(g_c), s	23.0	0.0	14.6	11.3	0.0	11.6	2.5	9.6	3.0	3.6	4.8	2.3
Prop In Lane	0.22		0.17	0.03		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	569	0	724	869	0	687	450	384	326	357	405	343
V/C Ratio(X)	0.80	0.00	0.70	0.55	0.00	0.60	0.23	0.84	0.29	0.41	0.44	0.22
Avail Cap(c_a), veh/h	578	0	735	881	0	697	490	416	353	377	416	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	13.1	12.2	0.0	12.3	15.0	22.0	19.4	15.7	19.6	18.6
Incr Delay (d2), s/veh	7.7	0.0	3.0	0.7	0.0	1.4	0.3	13.0	0.5	0.8	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	5.0	4.0	0.0	3.5	0.9	5.1	1.0	1.3	1.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.0	0.0	16.1	12.9	0.0	13.6	15.3	35.0	19.9	16.5	20.3	18.9
LnGrp LOS	C	A	B	B	A	B	B	D	B	B	C	B
Approach Vol, veh/h		965			890			520			399	
Approach Delay, s/veh		19.4			13.2			28.3			18.6	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	17.0		30.6	9.7	17.7		30.6				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	13.0			26.0	7.0	13.0		26.0				
Max Q Clear Time (g_c+1/3), s	11.6			25.0	4.5	6.8		13.6				
Green Ext Time (p_c), s	0.0	0.3		0.7	0.0	0.6		4.6				

Intersection Summary

HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B



HCM 6th Signalized Intersection Summary  
126: Cumberland Rd & SR 32/38

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↕	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	90	718	80	13	625	181	96	295	87	135	163	69
Future Volume (veh/h)	90	718	80	13	625	181	96	295	87	135	163	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	780	87	14	679	197	104	321	95	147	177	75
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	144	1026	124	72	1154	331	450	384	326	357	405	343
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.10	0.21	0.21	0.11	0.22	0.22
Sat Flow, veh/h	154	2322	279	17	2611	748	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	455	0	510	481	0	409	104	321	95	147	177	75
Grp Sat Flow(s),veh/h/ln	1118	0	1638	1822	0	1554	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	11.4	0.0	14.6	0.0	0.0	11.6	2.5	9.6	3.0	3.6	4.8	2.3
Cycle Q Clear(g_c), s	23.0	0.0	14.6	11.3	0.0	11.6	2.5	9.6	3.0	3.6	4.8	2.3
Prop In Lane	0.22		0.17	0.03		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	569	0	724	869	0	687	450	384	326	357	405	343
V/C Ratio(X)	0.80	0.00	0.70	0.55	0.00	0.60	0.23	0.84	0.29	0.41	0.44	0.22
Avail Cap(c_a), veh/h	578	0	735	881	0	697	490	416	353	377	416	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	13.1	12.2	0.0	12.3	15.0	22.0	19.4	15.7	19.6	18.6
Incr Delay (d2), s/veh	7.7	0.0	3.0	0.7	0.0	1.4	0.3	13.0	0.5	0.8	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	5.0	4.0	0.0	3.5	0.9	5.1	1.0	1.3	1.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.0	0.0	16.1	12.9	0.0	13.6	15.3	35.0	19.9	16.5	20.3	18.9
LnGrp LOS	C	A	B	B	A	B	B	D	B	B	C	B
Approach Vol, veh/h		965			890			520			399	
Approach Delay, s/veh		19.4			13.2			28.3			18.6	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	17.0		30.6	9.7	17.7		30.6				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	13.0			26.0	7.0	13.0		26.0				
Max Q Clear Time (g_c+1/3), s	11.6			25.0	4.5	6.8		13.6				
Green Ext Time (p_c), s	0.0	0.3		0.7	0.0	0.6		4.6				

Intersection Summary

HCM 6th Ctrl Delay		19.0										
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary  
 126: Cumberland Rd & SR 32/38

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↑	↕	↕	↑	↕
Traffic Volume (veh/h)	90	1313	80	13	1225	181	96	295	87	135	163	69
Future Volume (veh/h)	90	1313	80	13	1225	181	96	295	87	135	163	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	1427	87	14	1332	197	104	321	95	147	177	75
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	99	1534	105	38	1967	291	231	278	236	163	278	236
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.06	0.15	0.15	0.06	0.15	0.15
Sat Flow, veh/h	96	2272	156	12	2914	432	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	687	0	925	808	0	735	104	321	95	147	177	75
Grp Sat Flow(s),veh/h/ln	864	0	1660	1747	0	1611	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	48.3	0.0	49.1	2.2	0.0	32.7	5.9	18.0	6.6	7.0	10.8	5.1
Cycle Q Clear(g_c), s	81.0	0.0	49.1	51.3	0.0	32.7	5.9	18.0	6.6	7.0	10.8	5.1
Prop In Lane	0.14		0.09	0.02		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	618	0	1121	1209	0	1087	231	278	236	163	278	236
V/C Ratio(X)	1.11	0.00	0.83	0.67	0.00	0.68	0.45	1.15	0.40	0.90	0.64	0.32
Avail Cap(c_a), veh/h	618	0	1121	1209	0	1087	231	278	236	163	278	236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	14.3	11.3	0.0	11.7	40.5	51.0	46.1	44.9	47.9	45.5
Incr Delay (d2), s/veh	70.9	0.0	5.2	1.4	0.0	1.7	1.4	101.9	1.1	43.2	4.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.9	0.0	17.7	11.5	0.0	10.9	2.7	16.1	2.6	3.0	5.3	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.1	0.0	19.5	12.7	0.0	13.3	41.9	152.9	47.2	88.1	52.6	46.3
LnGrp LOS	F	A	B	B	A	B	D	F	D	F	D	D
Approach Vol, veh/h		1612			1543			520			399	
Approach Delay, s/veh		52.6			13.0			111.4			64.5	
Approach LOS		D			B			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	1.0	23.0		86.0	11.0	23.0		86.0				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0			81.0	7.0	18.0		81.0				
Max Q Clear Time (g_c+19), s	20.0			83.0	7.9	12.8		53.3				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.5		13.8				

Intersection Summary

HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
126: Cumberland Rd & SR 32/38

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↑	↕	↕	↑	↕
Traffic Volume (veh/h)	90	1313	80	13	1225	181	96	295	87	135	163	69
Future Volume (veh/h)	90	1313	80	13	1225	181	96	295	87	135	163	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	1427	87	14	1332	197	104	321	95	147	177	75
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	99	1534	105	38	1967	291	231	278	236	163	278	236
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.06	0.15	0.15	0.06	0.15	0.15
Sat Flow, veh/h	96	2272	156	12	2914	432	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	687	0	925	808	0	735	104	321	95	147	177	75
Grp Sat Flow(s),veh/h/ln	864	0	1660	1747	0	1611	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	48.3	0.0	49.1	2.2	0.0	32.7	5.9	18.0	6.6	7.0	10.8	5.1
Cycle Q Clear(g_c), s	81.0	0.0	49.1	51.3	0.0	32.7	5.9	18.0	6.6	7.0	10.8	5.1
Prop In Lane	0.14		0.09	0.02		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	618	0	1121	1209	0	1087	231	278	236	163	278	236
V/C Ratio(X)	1.11	0.00	0.83	0.67	0.00	0.68	0.45	1.15	0.40	0.90	0.64	0.32
Avail Cap(c_a), veh/h	618	0	1121	1209	0	1087	231	278	236	163	278	236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	14.3	11.3	0.0	11.7	40.5	51.0	46.1	44.9	47.9	45.5
Incr Delay (d2), s/veh	70.9	0.0	5.2	1.4	0.0	1.7	1.4	101.9	1.1	43.2	4.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.9	0.0	17.7	11.5	0.0	10.9	2.7	16.1	2.6	3.0	5.3	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.1	0.0	19.5	12.7	0.0	13.3	41.9	152.9	47.2	88.1	52.6	46.3
LnGrp LOS	F	A	B	B	A	B	D	F	D	F	D	D
Approach Vol, veh/h		1612			1543			520			399	
Approach Delay, s/veh		52.6			13.0			111.4			64.5	
Approach LOS		D			B			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	1.0	23.0		86.0	11.0	23.0		86.0				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0			81.0	7.0	18.0		81.0				
Max Q Clear Time (g_c+19), s	20.0			83.0	7.9	12.8		53.3				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.5		13.8				

Intersection Summary

HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Intersection						
Int Delay, s/veh	8.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	213	141	132	229	160	96
Future Vol, veh/h	213	141	132	229	160	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	0	115	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	232	153	143	249	174	104

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	392	0	-	0	760 143
Stage 1	-	-	-	-	143 -
Stage 2	-	-	-	-	617 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1161	-	-	-	372 902
Stage 1	-	-	-	-	882 -
Stage 2	-	-	-	-	536 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1161	-	-	-	298 902
Mov Cap-2 Maneuver	-	-	-	-	298 -
Stage 1	-	-	-	-	706 -
Stage 2	-	-	-	-	536 -

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	24
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1161	-	-	-	298	902
HCM Lane V/C Ratio	0.199	-	-	-	0.584	0.116
HCM Control Delay (s)	8.9	-	-	-	32.7	9.5
HCM Lane LOS	A	-	-	-	D	A
HCM 95th %tile Q(veh)	0.7	-	-	-	3.4	0.4

Intersection						
Int Delay, s/veh	8.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	213	141	132	229	160	96
Future Vol, veh/h	213	141	132	229	160	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	0	115	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	232	153	143	249	174	104

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	392	0	-	0	760
Stage 1	-	-	-	-	143
Stage 2	-	-	-	-	617
Critical Hdwy	4.13	-	-	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	2.227	-	-	-	3.527
Pot Cap-1 Maneuver	1161	-	-	-	372
Stage 1	-	-	-	-	882
Stage 2	-	-	-	-	536
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1161	-	-	-	298
Mov Cap-2 Maneuver	-	-	-	-	298
Stage 1	-	-	-	-	706
Stage 2	-	-	-	-	536

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	24
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1161	-	-	-	298	902
HCM Lane V/C Ratio	0.199	-	-	-	0.584	0.116
HCM Control Delay (s)	8.9	-	-	-	32.7	9.5
HCM Lane LOS	A	-	-	-	D	A
HCM 95th %tile Q(veh)	0.7	-	-	-	3.4	0.4

Intersection						
Int Delay, s/veh	8.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	213	141	132	229	160	96
Future Vol, veh/h	213	141	132	229	160	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	0	115	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	232	153	143	249	174	104

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	392	0	-	0	760 143
Stage 1	-	-	-	-	143 -
Stage 2	-	-	-	-	617 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1161	-	-	-	372 902
Stage 1	-	-	-	-	882 -
Stage 2	-	-	-	-	536 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1161	-	-	-	298 902
Mov Cap-2 Maneuver	-	-	-	-	298 -
Stage 1	-	-	-	-	706 -
Stage 2	-	-	-	-	536 -

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	24
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1161	-	-	-	298	902
HCM Lane V/C Ratio	0.199	-	-	-	0.584	0.116
HCM Control Delay (s)	8.9	-	-	-	32.7	9.5
HCM Lane LOS	A	-	-	-	D	A
HCM 95th %tile Q(veh)	0.7	-	-	-	3.4	0.4

Intersection						
Int Delay, s/veh	8.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	213	141	132	229	160	96
Future Vol, veh/h	213	141	132	229	160	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	0	115	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	232	153	143	249	174	104

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	392	0	-	0	760 143
Stage 1	-	-	-	-	143 -
Stage 2	-	-	-	-	617 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1161	-	-	-	372 902
Stage 1	-	-	-	-	882 -
Stage 2	-	-	-	-	536 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1161	-	-	-	298 902
Mov Cap-2 Maneuver	-	-	-	-	298 -
Stage 1	-	-	-	-	706 -
Stage 2	-	-	-	-	536 -

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	24
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1161	-	-	-	298	902
HCM Lane V/C Ratio	0.199	-	-	-	0.584	0.116
HCM Control Delay (s)	8.9	-	-	-	32.7	9.5
HCM Lane LOS	A	-	-	-	D	A
HCM 95th %tile Q(veh)	0.7	-	-	-	3.4	0.4

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↗	↗	↗	↗↗	↗
Traffic Vol, veh/h	0	0	284	0	0	8	294	1713	14	8	980	27
Future Vol, veh/h	0	0	284	0	0	8	294	1713	14	8	980	27
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	-	-	0	520	-	55	0	-	450
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	309	0	0	9	320	1862	15	9	1065	29

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	533	-	-	931	1094	0	0	1877	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	489	0	0	267	628	-	-	312	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	489	-	-	267	628	-	-	312	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	24.1		18.9		2.4		0.1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	628	-	-	489	267	312	-
HCM Lane V/C Ratio	0.509	-	-	0.631	0.033	0.028	-
HCM Control Delay (s)	16.5	-	-	24.1	18.9	16.9	-
HCM Lane LOS	C	-	-	C	C	C	-
HCM 95th %tile Q(veh)	2.9	-	-	4.3	0.1	0.1	-



Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↗	↗	↗	↗↗	↗
Traffic Vol, veh/h	0	0	284	0	0	8	294	1713	14	8	980	27
Future Vol, veh/h	0	0	284	0	0	8	294	1713	14	8	980	27
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	-	-	0	520	-	55	0	-	450
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	309	0	0	9	320	1862	15	9	1065	29

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	533	-	-	931	1094	0	0	1877	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	489	0	0	267	628	-	-	312	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	489	-	-	267	628	-	-	312	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	24.1		18.9		2.4		0.1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	628	-	-	489	267	312	-
HCM Lane V/C Ratio	0.509	-	-	0.631	0.033	0.028	-
HCM Control Delay (s)	16.5	-	-	24.1	18.9	16.9	-
HCM Lane LOS	C	-	-	C	C	C	-
HCM 95th %tile Q(veh)	2.9	-	-	4.3	0.1	0.1	-

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↗	↗	↗	↗↗	↗
Traffic Vol, veh/h	0	0	284	0	0	8	294	2996	14	8	1447	27
Future Vol, veh/h	0	0	284	0	0	8	294	2996	14	8	1447	27
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	-	-	0	520	-	55	0	-	450
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	309	0	0	9	320	3257	15	9	1573	29

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	787	-	-	1629	1602	0	0	3272	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	332	0	0	90	400	-	-	86	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	332	-	-	90	400	-	-	86	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	69.2		49.2		3.7		0.3	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	400	-	-	332	90	86	-
HCM Lane V/C Ratio	0.799	-	-	0.93	0.097	0.101	-
HCM Control Delay (s)	41.4	-	-	69.2	49.2	51.5	-
HCM Lane LOS	E	-	-	F	E	F	-
HCM 95th %tile Q(veh)	7	-	-	9.4	0.3	0.3	-

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↗	↗	↗	↗↗	↗
Traffic Vol, veh/h	0	0	284	0	0	8	294	2996	14	8	1447	27
Future Vol, veh/h	0	0	284	0	0	8	294	2996	14	8	1447	27
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	-	-	0	520	-	55	0	-	450
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	309	0	0	9	320	3257	15	9	1573	29

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	787	-	-	1629	1602	0	0	3272	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	332	0	0	90	400	-	-	86	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	332	-	-	90	400	-	-	86	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	69.2		49.2		3.7		0.3	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	400	-	-	332	90	86	-
HCM Lane V/C Ratio	0.799	-	-	0.93	0.097	0.101	-
HCM Control Delay (s)	41.4	-	-	69.2	49.2	51.5	-
HCM Lane LOS	E	-	-	F	E	F	-
HCM 95th %tile Q(veh)	7	-	-	9.4	0.3	0.3	-

Intersection							
Intersection Delay, s/veh	7.0						
Intersection LOS	A						
Approach	EB		WB		NB		SB
Entry Lanes	2		2		1		1
Conflicting Circle Lanes	2		2		2		2
Adj Approach Flow, veh/h	1020		938		97		94
Demand Flow Rate, veh/h	1051		965		100		97
Vehicles Circulating, veh/h	86		112		1076		980
Vehicles Exiting, veh/h	991		1064		61		97
Ped Vol Crossing Leg, #/h	0		0		0		0
Ped Cap Adj	1.000		1.000		1.000		1.000
Approach Delay, s/veh	6.9		6.7		8.8		8.0
Approach LOS	A		A		A		A
Lane	Left	Right	Left	Right	Left	Left	
Designated Moves	LT	TR	LT	TR	LTR	LTR	
Assumed Moves	LT	TR	LT	TR	LTR	LTR	
RT Channelized							
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328	
Entry Flow, veh/h	494	557	454	511	100	97	
Cap Entry Lane, veh/h	1247	1320	1218	1291	569	617	
Entry HV Adj Factor	0.971	0.971	0.971	0.973	0.973	0.965	
Flow Entry, veh/h	479	541	441	497	97	94	
Cap Entry, veh/h	1210	1281	1182	1256	553	596	
V/C Ratio	0.396	0.422	0.373	0.396	0.176	0.157	
Control Delay, s/veh	6.9	7.0	6.7	6.7	8.8	8.0	
LOS	A	A	A	A	A	A	
95th %tile Queue, veh	2	2	2	2	1	1	

Intersection							
Intersection Delay, s/veh	7.0						
Intersection LOS	A						
Approach	EB		WB		NB		SB
Entry Lanes	2		2		1		1
Conflicting Circle Lanes	2		2		2		2
Adj Approach Flow, veh/h	1020		938		97		94
Demand Flow Rate, veh/h	1051		965		100		97
Vehicles Circulating, veh/h	86		112		1076		980
Vehicles Exiting, veh/h	991		1064		61		97
Ped Vol Crossing Leg, #/h	0		0		0		0
Ped Cap Adj	1.000		1.000		1.000		1.000
Approach Delay, s/veh	6.9		6.7		8.8		8.0
Approach LOS	A		A		A		A
Lane	Left	Right	Left	Right	Left	Left	
Designated Moves	LT	TR	LT	TR	LTR	LTR	
Assumed Moves	LT	TR	LT	TR	LTR	LTR	
RT Channelized							
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328	
Entry Flow, veh/h	494	557	454	511	100	97	
Cap Entry Lane, veh/h	1247	1320	1218	1291	569	617	
Entry HV Adj Factor	0.971	0.971	0.971	0.973	0.973	0.965	
Flow Entry, veh/h	479	541	441	497	97	94	
Cap Entry, veh/h	1210	1281	1182	1256	553	596	
V/C Ratio	0.396	0.422	0.373	0.396	0.176	0.157	
Control Delay, s/veh	6.9	7.0	6.7	6.7	8.8	8.0	
LOS	A	A	A	A	A	A	
95th %tile Queue, veh	2	2	2	2	1	1	

Intersection							
Intersection Delay, s/veh	20.5						
Intersection LOS	C						
Approach	EB		WB		NB		SB
Entry Lanes	2		2		1		1
Conflicting Circle Lanes	2		2		2		2
Adj Approach Flow, veh/h	1918		1718		98		265
Demand Flow Rate, veh/h	1975		1769		101		273
Vehicles Circulating, veh/h	195		127		2108		1694
Vehicles Exiting, veh/h	1772		2082		62		202
Ped Vol Crossing Leg, #/h	0		0		0		0
Ped Cap Adj	1.000		1.000		1.000		1.000
Approach Delay, s/veh	22.1		13.7		28.9		49.0
Approach LOS	C		B		D		E
Lane	Left	Right	Left	Right	Left	Left	
Designated Moves	LT	TR	LT	TR	LTR	LTR	
Assumed Moves	LT	TR	LT	TR	LTR	LTR	
RT Channelized							
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328	
Entry Flow, veh/h	928	1047	831	938	101	273	
Cap Entry Lane, veh/h	1128	1203	1201	1275	237	336	
Entry HV Adj Factor	0.971	0.971	0.972	0.971	0.973	0.969	
Flow Entry, veh/h	901	1016	807	910	98	265	
Cap Entry, veh/h	1096	1168	1167	1237	230	326	
V/C Ratio	0.823	0.870	0.692	0.736	0.427	0.811	
Control Delay, s/veh	20.5	23.6	13.2	14.2	28.9	49.0	
LOS	C	C	B	B	D	E	
95th %tile Queue, veh	10	12	6	7	2	7	

Intersection						
Intersection Delay, s/veh	20.5					
Intersection LOS	C					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	1918		1718		98	265
Demand Flow Rate, veh/h	1975		1769		101	273
Vehicles Circulating, veh/h	195		127		2108	1694
Vehicles Exiting, veh/h	1772		2082		62	202
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	22.1		13.7		28.9	49.0
Approach LOS	C		B		D	E
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	928	1047	831	938	101	273
Cap Entry Lane, veh/h	1128	1203	1201	1275	237	336
Entry HV Adj Factor	0.971	0.971	0.972	0.971	0.973	0.969
Flow Entry, veh/h	901	1016	807	910	98	265
Cap Entry, veh/h	1096	1168	1167	1237	230	326
V/C Ratio	0.823	0.870	0.692	0.736	0.427	0.811
Control Delay, s/veh	20.5	23.6	13.2	14.2	28.9	49.0
LOS	C	C	B	B	D	E
95th %tile Queue, veh	10	12	6	7	2	7

Intersection						
Intersection Delay, s/veh 9.8						
Intersection LOS A						
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	859		695		756	
Demand Flow Rate, veh/h	884		716		779	
Vehicles Circulating, veh/h	224		259		732	
Vehicles Exiting, veh/h	751		1252		376	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	7.3		6.6		15.5	
Approach LOS	A		A		C	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	LTR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.469	0.531	0.471	0.529	0.332	0.668
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	415	469	337	379	259	520
Cap Entry Lane, veh/h	1098	1174	1064	1139	688	762
Entry HV Adj Factor	0.972	0.970	0.969	0.971	0.969	0.971
Flow Entry, veh/h	404	455	326	368	251	505
Cap Entry, veh/h	1068	1139	1031	1107	667	740
V/C Ratio	0.378	0.400	0.317	0.333	0.376	0.682
Control Delay, s/veh	7.3	7.2	6.7	6.5	10.5	18.0
LOS	A	A	A	A	B	C
95th %tile Queue, veh	2	2	1	1	2	5



Intersection						
Intersection Delay, s/veh	9.8					
Intersection LOS	A					
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	859		695		756	
Demand Flow Rate, veh/h	884		716		779	
Vehicles Circulating, veh/h	224		259		732	
Vehicles Exiting, veh/h	751		1252		376	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	7.3		6.6		15.5	
Approach LOS	A		A		C	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	LTR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.469	0.531	0.471	0.529	0.332	0.668
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	415	469	337	379	259	520
Cap Entry Lane, veh/h	1098	1174	1064	1139	688	762
Entry HV Adj Factor	0.972	0.970	0.969	0.971	0.969	0.971
Flow Entry, veh/h	404	455	326	368	251	505
Cap Entry, veh/h	1068	1139	1031	1107	667	740
V/C Ratio	0.378	0.400	0.317	0.333	0.376	0.682
Control Delay, s/veh	7.3	7.2	6.7	6.5	10.5	18.0
LOS	A	A	A	A	B	C
95th %tile Queue, veh	2	2	1	1	2	5

Intersection							
Intersection Delay, s/veh 10.4							
Intersection LOS F							
Approach	EB		WB		NB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	2		2		2		
Adj Approach Flow, veh/h	1905		1493		1254		
Demand Flow Rate, veh/h	1962		1538		1292		
Vehicles Circulating, veh/h	387		376		1748		
Vehicles Exiting, veh/h	1527		2664		601		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	49.6		19.1		682.7		
Approach LOS	E		C		F		
Lane	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	L	LTR	
Assumed Moves	LT	TR	LT	TR	L	TR	
RT Channelized							
Lane Util	0.470	0.530	0.470	0.530	0.291	0.709	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	922	1040	723	815	376	916	
Cap Entry Lane, veh/h	946	1022	955	1032	270	321	
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.971	0.971	
Flow Entry, veh/h	895	1010	702	792	365	889	
Cap Entry, veh/h	918	992	927	1002	262	312	
V/C Ratio	0.975	1.018	0.757	0.790	1.391	2.851	
Control Delay, s/veh	45.0	53.6	18.7	19.5	234.3	866.8	
LOS	E	F	C	C	F	F	
95th %tile Queue, veh	17	21	7	9	20	77	

Intersection						
Intersection Delay, s/veh						
10.4						
Intersection LOS						
F						
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	1905		1493		1254	
Demand Flow Rate, veh/h	1962		1538		1292	
Vehicles Circulating, veh/h	387		376		1748	
Vehicles Exiting, veh/h	1527		2664		601	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	49.6		19.1		682.7	
Approach LOS	E		C		F	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	LTR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.291	0.709
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	922	1040	723	815	376	916
Cap Entry Lane, veh/h	946	1022	955	1032	270	321
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.971	0.971
Flow Entry, veh/h	895	1010	702	792	365	889
Cap Entry, veh/h	918	992	927	1002	262	312
V/C Ratio	0.975	1.018	0.757	0.790	1.391	2.851
Control Delay, s/veh	45.0	53.6	18.7	19.5	234.3	866.8
LOS	E	F	C	C	F	F
95th %tile Queue, veh	17	21	7	9	20	77

Intersection						
Intersection Delay, s/veh 7.2						
Intersection LOS A						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	818		716		48	347
Demand Flow Rate, veh/h	842		737		49	357
Vehicles Circulating, veh/h	227		237		1041	535
Vehicles Exiting, veh/h	665		853		28	439
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	7.0		6.5		7.2	8.8
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.469	0.531	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	396	446	346	391	49	357
Cap Entry Lane, veh/h	1095	1171	1085	1161	586	901
Entry HV Adj Factor	0.971	0.972	0.973	0.970	0.988	0.971
Flow Entry, veh/h	384	433	337	379	48	347
Cap Entry, veh/h	1063	1138	1056	1127	579	875
V/C Ratio	0.361	0.381	0.319	0.337	0.084	0.396
Control Delay, s/veh	7.1	7.0	6.6	6.5	7.2	8.8
LOS	A	A	A	A	A	A
95th %tile Queue, veh	2	2	1	1	0	2

Intersection						
Intersection Delay, s/veh	7.2					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	818		716		48	347
Demand Flow Rate, veh/h	842		737		49	357
Vehicles Circulating, veh/h	227		237		1041	535
Vehicles Exiting, veh/h	665		853		28	439
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	7.0		6.5		7.2	8.8
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.469	0.531	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	396	446	346	391	49	357
Cap Entry Lane, veh/h	1095	1171	1085	1161	586	901
Entry HV Adj Factor	0.971	0.972	0.973	0.970	0.988	0.971
Flow Entry, veh/h	384	433	337	379	48	347
Cap Entry, veh/h	1063	1138	1056	1127	579	875
V/C Ratio	0.361	0.381	0.319	0.337	0.084	0.396
Control Delay, s/veh	7.1	7.0	6.6	6.5	7.2	8.8
LOS	A	A	A	A	A	A
95th %tile Queue, veh	2	2	1	1	0	2

Intersection						
Intersection Delay, s/veh 20.7						
Intersection LOS F						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	2169		1953		48	941
Demand Flow Rate, veh/h	2234		2011		49	969
Vehicles Circulating, veh/h	675		572		2881	1166
Vehicles Exiting, veh/h	1460		2358		28	1417
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	233.3		122.5		50.2	404.3
Approach LOS	F		F		F	F
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	1050	1184	945	1066	49	969
Cap Entry Lane, veh/h	725	800	798	873	123	527
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.988	0.971
Flow Entry, veh/h	1019	1150	918	1035	48	941
Cap Entry, veh/h	704	777	775	848	121	512
V/C Ratio	1.447	1.480	1.185	1.221	0.400	1.839
Control Delay, s/veh	226.8	239.1	116.1	128.2	50.2	404.3
LOS	F	F	F	F	F	F
95th %tile Queue, veh	47	55	30	35	2	60

Intersection						
Intersection Delay, s/veh 20.7						
Intersection LOS F						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	2169		1953		48	941
Demand Flow Rate, veh/h	2234		2011		49	969
Vehicles Circulating, veh/h	675		572		2881	1166
Vehicles Exiting, veh/h	1460		2358		28	1417
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	233.3		122.5		50.2	404.3
Approach LOS	F		F		F	F
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	1050	1184	945	1066	49	969
Cap Entry Lane, veh/h	725	800	798	873	123	527
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.988	0.971
Flow Entry, veh/h	1019	1150	918	1035	48	941
Cap Entry, veh/h	704	777	775	848	121	512
V/C Ratio	1.447	1.480	1.185	1.221	0.400	1.839
Control Delay, s/veh	226.8	239.1	116.1	128.2	50.2	404.3
LOS	F	F	F	F	F	F
95th %tile Queue, veh	47	55	30	35	2	60

Intersection								
Intersection Delay, s/veh								
138.5								
Intersection LOS								
F								
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		1		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	1129		1663		42		1222	
Demand Flow Rate, veh/h	1163		1713		44		1259	
Vehicles Circulating, veh/h	852		151		1943		1400	
Vehicles Exiting, veh/h	1807		1836		72		464	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	39.3		13.6		17.3		404.4	
Approach LOS	E		B		C		F	
Lane	Left	Right	Left	Right	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	LTR	LT	R	
Assumed Moves	LT	TR	LT	TR	LTR	LT	R	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	1.000	0.654	0.346	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.645	4.328	
Entry Flow, veh/h	547	616	805	908	44	823	436	
Cap Entry Lane, veh/h	616	688	1175	1249	272	372	432	
Entry HV Adj Factor	0.970	0.971	0.971	0.970	0.953	0.970	0.970	
Flow Entry, veh/h	530	598	781	881	42	799	423	
Cap Entry, veh/h	598	668	1140	1212	259	361	419	
V/C Ratio	0.887	0.895	0.685	0.727	0.162	2.210	1.009	
Control Delay, s/veh	40.3	38.5	13.2	14.1	17.3	577.1	78.2	
LOS	E	E	B	B	C	F	F	
95th %tile Queue, veh	11	11	6	7	1	60	13	



Intersection								
Intersection Delay, s/veh								
Intersection LOS								
F								
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		1		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	2169		1953		48		941	
Demand Flow Rate, veh/h	2234		2011		49		969	
Vehicles Circulating, veh/h	675		572		2881		1166	
Vehicles Exiting, veh/h	1460		2358		28		1417	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	233.3		122.5		50.2		169.4	
Approach LOS	F		F		F		F	
Lane	Left	Right	Left	Right	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	LTR	LT	R	
Assumed Moves	LT	TR	LT	TR	LTR	LT	R	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	1.000	0.689	0.311	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.645	4.328	
Entry Flow, veh/h	1050	1184	945	1066	49	668	301	
Cap Entry Lane, veh/h	725	800	798	873	123	462	527	
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.988	0.971	0.970	
Flow Entry, veh/h	1019	1150	918	1035	48	649	292	
Cap Entry, veh/h	704	777	775	848	121	448	511	
V/C Ratio	1.447	1.480	1.185	1.221	0.400	1.446	0.571	
Control Delay, s/veh	226.8	239.1	116.1	128.2	50.2	237.2	18.9	
LOS	F	F	F	F	F	F	C	
95th %tile Queue, veh	47	55	30	35	2	33	4	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	939	654	1	3	1
Future Vol, veh/h	3	939	654	1	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	1021	711	1	3	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	712	0	-	0	1739 712
Stage 1	-	-	-	-	712 -
Stage 2	-	-	-	-	1027 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	883	-	-	-	95 431
Stage 1	-	-	-	-	484 -
Stage 2	-	-	-	-	344 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	883	-	-	-	94 431
Mov Cap-2 Maneuver	-	-	-	-	94 -
Stage 1	-	-	-	-	480 -
Stage 2	-	-	-	-	344 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	37
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	883	-	-	-	117
HCM Lane V/C Ratio	0.004	-	-	-	0.037
HCM Control Delay (s)	9.1	0	-	-	37
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	939	654	1	3	1
Future Vol, veh/h	3	939	654	1	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	1021	711	1	3	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	712	0	-	0	1739 712
Stage 1	-	-	-	-	712 -
Stage 2	-	-	-	-	1027 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	883	-	-	-	95 431
Stage 1	-	-	-	-	484 -
Stage 2	-	-	-	-	344 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	883	-	-	-	94 431
Mov Cap-2 Maneuver	-	-	-	-	94 -
Stage 1	-	-	-	-	480 -
Stage 2	-	-	-	-	344 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	37
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	883	-	-	-	117
HCM Lane V/C Ratio	0.004	-	-	-	0.037
HCM Control Delay (s)	9.1	0	-	-	37
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	4	2343	1952	1	3	2
Future Vol, veh/h	4	2343	1952	1	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	2547	2122	1	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	2123	0	-	0	4678 2123
Stage 1	-	-	-	-	2123 -
Stage 2	-	-	-	-	2555 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	254	-	-	-	~ 1 63
Stage 1	-	-	-	-	99 -
Stage 2	-	-	-	-	59 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	254	-	-	-	~ 1 63
Mov Cap-2 Maneuver	-	-	-	-	~ 1 -
Stage 1	-	-	-	-	99 -
Stage 2	-	-	-	-	59 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	\$ 3724.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	254	-	-	-	2
HCM Lane V/C Ratio	0.017	-	-	-	2.717
HCM Control Delay (s)	19.4	0	-	-	\$ 3724.5
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	1.7

Notes			
-:	Volume exceeds capacity	⋄:	Delay exceeds 300s
+	Computation Not Defined	*	All major volume in platoon

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	4	2343	1952	1	3	2
Future Vol, veh/h	4	2343	1952	1	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	2547	2122	1	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	2123	0	-	0	4678 2123
Stage 1	-	-	-	-	2123 -
Stage 2	-	-	-	-	2555 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	254	-	-	-	~ 1 63
Stage 1	-	-	-	-	99 -
Stage 2	-	-	-	-	59 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	254	-	-	-	~ 1 63
Mov Cap-2 Maneuver	-	-	-	-	~ 1 -
Stage 1	-	-	-	-	99 -
Stage 2	-	-	-	-	59 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	\$ 3724.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	254	-	-	-	2
HCM Lane V/C Ratio	0.017	-	-	-	2.717
HCM Control Delay (s)	19.4	0	-	-	\$ 3724.5
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	1.7

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection								
Intersection Delay, s/veh	5.5							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	481		14		593		360	
Demand Flow Rate, veh/h	495		14		611		371	
Vehicles Circulating, veh/h	274		868		292		122	
Vehicles Exiting, veh/h	219		35		477		760	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	5.6		5.6		6.3		4.2	
Approach LOS	A		A		A		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	L	LTR	LTR	LT	TR	LT	TR	
Assumed Moves	L	LTR	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.529	0.471	1.000	0.470	0.530	0.469	0.531	
Follow-Up Headway, s	2.667	2.535	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	262	233	14	287	324	174	197	
Cap Entry Lane, veh/h	1049	1125	679	1032	1108	1207	1280	
Entry HV Adj Factor	0.972	0.969	0.992	0.971	0.970	0.973	0.969	
Flow Entry, veh/h	255	226	14	279	314	169	191	
Cap Entry, veh/h	1020	1091	673	1002	1075	1174	1241	
V/C Ratio	0.250	0.207	0.021	0.278	0.292	0.144	0.154	
Control Delay, s/veh	5.9	5.2	5.6	6.4	6.2	4.3	4.2	
LOS	A	A	A	A	A	A	A	
95th %tile Queue, veh	1	1	0	1	1	1	1	

Intersection								
Intersection Delay, s/veh	5.5							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	481		14		593		360	
Demand Flow Rate, veh/h	495		14		611		371	
Vehicles Circulating, veh/h	274		868		292		122	
Vehicles Exiting, veh/h	219		35		477		760	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	5.6		5.6		6.3		4.2	
Approach LOS	A		A		A		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	L	LTR	LTR	LT	TR	LT	TR	
Assumed Moves	L	LTR	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.529	0.471	1.000	0.470	0.530	0.469	0.531	
Follow-Up Headway, s	2.667	2.535	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	262	233	14	287	324	174	197	
Cap Entry Lane, veh/h	1049	1125	679	1032	1108	1207	1280	
Entry HV Adj Factor	0.972	0.969	0.992	0.971	0.970	0.973	0.969	
Flow Entry, veh/h	255	226	14	279	314	169	191	
Cap Entry, veh/h	1020	1091	673	1002	1075	1174	1241	
V/C Ratio	0.250	0.207	0.021	0.278	0.292	0.144	0.154	
Control Delay, s/veh	5.9	5.2	5.6	6.4	6.2	4.3	4.2	
LOS	A	A	A	A	A	A	A	
95th %tile Queue, veh	1	1	0	1	1	1	1	

Intersection								
Intersection Delay, s/veh	8.3							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	516		14		1109		579	
Demand Flow Rate, veh/h	531		14		1143		596	
Vehicles Circulating, veh/h	493		1409		301		153	
Vehicles Exiting, veh/h	256		35		723		1270	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	7.4		8.9		10.2		5.3	
Approach LOS	A		A		B		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	L	LTR	LTR	LT	TR	LT	TR	
Assumed Moves	L	LTR	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.529	0.471	1.000	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	281	250	14	537	606	280	316	
Cap Entry Lane, veh/h	858	934	429	1023	1099	1173	1247	
Entry HV Adj Factor	0.973	0.969	0.992	0.971	0.970	0.972	0.971	
Flow Entry, veh/h	273	242	14	521	588	272	307	
Cap Entry, veh/h	834	905	425	994	1067	1140	1211	
V/C Ratio	0.328	0.268	0.033	0.525	0.551	0.239	0.253	
Control Delay, s/veh	8.0	6.8	8.9	10.2	10.2	5.3	5.2	
LOS	A	A	A	B	B	A	A	
95th %tile Queue, veh	1	1	0	3	3	1	1	



Intersection								
Intersection Delay, s/veh	8.3							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	516		14		1109		579	
Demand Flow Rate, veh/h	531		14		1143		596	
Vehicles Circulating, veh/h	493		1409		301		153	
Vehicles Exiting, veh/h	256		35		723		1270	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	7.4		8.9		10.2		5.3	
Approach LOS	A		A		B		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	L	LTR	LTR	LT	TR	LT	TR	
Assumed Moves	L	LTR	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.529	0.471	1.000	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	281	250	14	537	606	280	316	
Cap Entry Lane, veh/h	858	934	429	1023	1099	1173	1247	
Entry HV Adj Factor	0.973	0.969	0.992	0.971	0.970	0.972	0.971	
Flow Entry, veh/h	273	242	14	521	588	272	307	
Cap Entry, veh/h	834	905	425	994	1067	1140	1211	
V/C Ratio	0.328	0.268	0.033	0.525	0.551	0.239	0.253	
Control Delay, s/veh	8.0	6.8	8.9	10.2	10.2	5.3	5.2	
LOS	A	A	A	B	B	A	A	
95th %tile Queue, veh	1	1	0	3	3	1	1	

Intersection				
Intersection Delay, s/veh	9.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	842	352	45	33
Demand Flow Rate, veh/h	868	362	46	34
Vehicles Circulating, veh/h	8	300	853	314
Vehicles Exiting, veh/h	340	599	23	348
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.5	7.4	7.4	4.0
Approach LOS	B	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	868	362	46	34
Cap Entry Lane, veh/h	1369	1016	578	1002
Entry HV Adj Factor	0.970	0.971	0.968	0.971
Flow Entry, veh/h	842	352	45	33
Cap Entry, veh/h	1327	987	560	972
V/C Ratio	0.634	0.356	0.080	0.034
Control Delay, s/veh	10.5	7.4	7.4	4.0
LOS	B	A	A	A
95th %tile Queue, veh	5	2	0	0

Intersection				
Intersection Delay, s/veh	9.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	842	352	45	33
Demand Flow Rate, veh/h	868	362	46	34
Vehicles Circulating, veh/h	8	300	853	314
Vehicles Exiting, veh/h	340	599	23	348
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.5	7.4	7.4	4.0
Approach LOS	B	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	868	362	46	34
Cap Entry Lane, veh/h	1369	1016	578	1002
Entry HV Adj Factor	0.970	0.971	0.968	0.971
Flow Entry, veh/h	842	352	45	33
Cap Entry, veh/h	1327	987	560	972
V/C Ratio	0.634	0.356	0.080	0.034
Control Delay, s/veh	10.5	7.4	7.4	4.0
LOS	B	A	A	A
95th %tile Queue, veh	5	2	0	0

Intersection				
Intersection Delay, s/veh	9.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	859	363	45	37
Demand Flow Rate, veh/h	885	374	46	38
Vehicles Circulating, veh/h	8	310	870	326
Vehicles Exiting, veh/h	356	606	23	358
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.8	7.7	7.5	4.1
Approach LOS	B	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	885	374	46	38
Cap Entry Lane, veh/h	1369	1006	568	990
Entry HV Adj Factor	0.970	0.971	0.968	0.974
Flow Entry, veh/h	859	363	45	37
Cap Entry, veh/h	1328	977	550	964
V/C Ratio	0.647	0.372	0.081	0.038
Control Delay, s/veh	10.8	7.7	7.5	4.1
LOS	B	A	A	A
95th %tile Queue, veh	5	2	0	0

Intersection				
Intersection Delay, s/veh	9.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	859	363	45	37
Demand Flow Rate, veh/h	885	374	46	38
Vehicles Circulating, veh/h	8	310	870	326
Vehicles Exiting, veh/h	356	606	23	358
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.8	7.7	7.5	4.1
Approach LOS	B	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	885	374	46	38
Cap Entry Lane, veh/h	1369	1006	568	990
Entry HV Adj Factor	0.970	0.971	0.968	0.974
Flow Entry, veh/h	859	363	45	37
Cap Entry, veh/h	1328	977	550	964
V/C Ratio	0.647	0.372	0.081	0.038
Control Delay, s/veh	10.8	7.7	7.5	4.1
LOS	B	A	A	A
95th %tile Queue, veh	5	2	0	0

Intersection					
Intersection Delay, s/veh	7.7				
Intersection LOS	A				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	630	320	543	4	
Demand Flow Rate, veh/h	649	330	559	4	
Vehicles Circulating, veh/h	103	439	246	750	
Vehicles Exiting, veh/h	651	366	103	19	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	5.5	8.6	9.7	5.7	
Approach LOS	A	A	A	A	
Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized	Yield				
Lane Util	1.000		1.000	1.000	1.000
Follow-Up Headway, s	2.609		2.609	2.609	2.609
Critical Headway, s	4.976	403	4.976	4.976	4.976
Entry Flow, veh/h	246	1242	330	559	4
Cap Entry Lane, veh/h	1242	0.971	882	1074	642
Entry HV Adj Factor	0.971	391	0.971	0.971	1.000
Flow Entry, veh/h	239	1206	320	543	4
Cap Entry, veh/h	1207	0.324	856	1042	642
V/C Ratio	0.198	6.0	0.374	0.521	0.006
Control Delay, s/veh	4.7	A	8.6	9.7	5.7
LOS	A	1	A	A	A
95th %tile Queue, veh	1		2	3	0

Intersection					
Intersection Delay, s/veh	7.7				
Intersection LOS	A				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	630	320	543	4	
Demand Flow Rate, veh/h	649	330	559	4	
Vehicles Circulating, veh/h	103	439	246	750	
Vehicles Exiting, veh/h	651	366	103	19	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	5.5	8.6	9.7	5.7	
Approach LOS	A	A	A	A	
Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized	Yield				
Lane Util	1.000		1.000	1.000	1.000
Follow-Up Headway, s	2.609		2.609	2.609	2.609
Critical Headway, s	4.976	403	4.976	4.976	4.976
Entry Flow, veh/h	246	1242	330	559	4
Cap Entry Lane, veh/h	1242	0.971	882	1074	642
Entry HV Adj Factor	0.971	391	0.971	0.971	1.000
Flow Entry, veh/h	239	1206	320	543	4
Cap Entry, veh/h	1207	0.324	856	1042	642
V/C Ratio	0.198	6.0	0.374	0.521	0.006
Control Delay, s/veh	4.7	A	8.6	9.7	5.7
LOS	A	1	A	A	A
95th %tile Queue, veh	1		2	3	0

Intersection					
Intersection Delay, s/veh	8.1				
Intersection LOS	A				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	672	335	555	4	
Demand Flow Rate, veh/h	692	345	572	4	
Vehicles Circulating, veh/h	103	452	264	778	
Vehicles Exiting, veh/h	679	384	103	19	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	5.7	9.0	10.3	5.8	
Approach LOS	A	A	B	A	
Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized	Yield				
Lane Util	1.000		1.000	1.000	1.000
Follow-Up Headway, s	2.609		2.609	2.609	2.609
Critical Headway, s	4.976	428	4.976	4.976	4.976
Entry Flow, veh/h	264	1242	345	572	4
Cap Entry Lane, veh/h	1242	0.971	870	1054	624
Entry HV Adj Factor	0.971	416	0.971	0.970	1.000
Flow Entry, veh/h	256	1206	335	555	4
Cap Entry, veh/h	1207	0.345	845	1022	624
V/C Ratio	0.213	6.3	0.396	0.543	0.006
Control Delay, s/veh	4.8	A	9.0	10.3	5.8
LOS	A	2	A	B	A
95th %tile Queue, veh	1		2	3	0



Intersection					
Intersection Delay, s/veh	8.1				
Intersection LOS	A				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	672	335	555	4	
Demand Flow Rate, veh/h	692	345	572	4	
Vehicles Circulating, veh/h	103	452	264	778	
Vehicles Exiting, veh/h	679	384	103	19	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	5.7	9.0	10.3	5.8	
Approach LOS	A	A	B	A	
Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized	Yield				
Lane Util	1.000		1.000	1.000	1.000
Follow-Up Headway, s	2.609		2.609	2.609	2.609
Critical Headway, s	4.976	428	4.976	4.976	4.976
Entry Flow, veh/h	264	1242	345	572	4
Cap Entry Lane, veh/h	1242	0.971	870	1054	624
Entry HV Adj Factor	0.971	416	0.971	0.970	1.000
Flow Entry, veh/h	256	1206	335	555	4
Cap Entry, veh/h	1207	0.345	845	1022	624
V/C Ratio	0.213	6.3	0.396	0.543	0.006
Control Delay, s/veh	4.8	A	9.0	10.3	5.8
LOS	A	2	A	B	A
95th %tile Queue, veh	1		2	3	0

HCM 6th Signalized Intersection Summary  
143: SR 37 & Pleasant St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (veh/h)	179	298	67	75	190	352	139	1544	98	258	988	79
Future Volume (veh/h)	179	298	67	75	190	352	139	1544	98	258	988	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	195	324	73	82	207	383	151	1678	107	280	1074	86
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	254	303	68	145	336	477	257	1673	826	272	1897	967
Arrive On Green	0.08	0.21	0.21	0.05	0.18	0.18	0.07	0.47	0.47	0.12	0.54	0.54
Sat Flow, veh/h	1767	1466	330	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	195	0	397	82	207	383	151	1678	107	280	1074	86
Grp Sat Flow(s),veh/h/ln	1767	0	1796	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	10.0	0.0	27.0	4.9	13.4	10.1	6.6	62.0	2.3	16.0	26.4	2.9
Cycle Q Clear(g_c), s	10.0	0.0	27.0	4.9	13.4	10.1	6.6	62.0	2.3	16.0	26.4	2.9
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	0	371	145	336	477	257	1673	826	272	1897	967
V/C Ratio(X)	0.77	0.00	1.07	0.57	0.62	0.80	0.59	1.00	0.13	1.03	0.57	0.09
Avail Cap(c_a), veh/h	254	0	371	150	341	481	315	1673	826	272	1897	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	0.0	51.8	42.6	49.3	26.2	25.4	34.3	6.0	55.7	20.0	10.3
Incr Delay (d2), s/veh	13.1	0.0	66.4	4.6	3.2	9.4	2.1	22.7	0.1	62.9	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	19.0	2.3	6.5	4.1	2.7	29.3	0.9	13.3	9.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	0.0	118.2	47.1	52.6	35.6	27.5	57.0	6.1	118.6	20.4	10.3
LnGrp LOS	E	A	F	D	D	D	C	F	A	F	C	B
Approach Vol, veh/h		592			672			1936			1440	
Approach Delay, s/veh		97.7			42.2			51.9			38.9	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	67.0	10.6	32.0	12.7	75.3	14.0	28.6				
Change Period (Y+Rc), s	5.0	* 5	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	* 62	7.0	27.0	13.0	65.0	10.0	24.0				
Max Q Clear Time (g_c+11g), s	10.0	64.0	6.9	29.0	8.6	28.4	12.0	15.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	8.3	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
143: SR 37 & Pleasant St

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (veh/h)	179	298	67	75	190	352	139	1544	98	258	988	79
Future Volume (veh/h)	179	298	67	75	190	352	139	1544	98	258	988	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	195	324	73	82	207	383	151	1678	107	280	1074	86
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	254	303	68	145	336	477	257	1673	826	272	1897	967
Arrive On Green	0.08	0.21	0.21	0.05	0.18	0.18	0.07	0.47	0.47	0.12	0.54	0.54
Sat Flow, veh/h	1767	1466	330	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	195	0	397	82	207	383	151	1678	107	280	1074	86
Grp Sat Flow(s),veh/h/ln	1767	0	1796	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	10.0	0.0	27.0	4.9	13.4	10.1	6.6	62.0	2.3	16.0	26.4	2.9
Cycle Q Clear(g_c), s	10.0	0.0	27.0	4.9	13.4	10.1	6.6	62.0	2.3	16.0	26.4	2.9
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	0	371	145	336	477	257	1673	826	272	1897	967
V/C Ratio(X)	0.77	0.00	1.07	0.57	0.62	0.80	0.59	1.00	0.13	1.03	0.57	0.09
Avail Cap(c_a), veh/h	254	0	371	150	341	481	315	1673	826	272	1897	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	0.0	51.8	42.6	49.3	26.2	25.4	34.3	6.0	55.7	20.0	10.3
Incr Delay (d2), s/veh	13.1	0.0	66.4	4.6	3.2	9.4	2.1	22.7	0.1	62.9	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	19.0	2.3	6.5	4.1	2.7	29.3	0.9	13.3	9.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	0.0	118.2	47.1	52.6	35.6	27.5	57.0	6.1	118.6	20.4	10.3
LnGrp LOS	E	A	F	D	D	D	C	F	A	F	C	B
Approach Vol, veh/h		592			672			1936			1440	
Approach Delay, s/veh		97.7			42.2			51.9			38.9	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	67.0	10.6	32.0	12.7	75.3	14.0	28.6				
Change Period (Y+Rc), s	5.0	* 5	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	* 62	7.0	27.0	13.0	65.0	10.0	24.0				
Max Q Clear Time (g_c+11g), s	10.0	64.0	6.9	29.0	8.6	28.4	12.0	15.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	8.3	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
143: SR 37 & Pleasant St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (veh/h)	193	315	67	84	203	355	147	2810	118	260	1453	79
Future Volume (veh/h)	193	315	67	84	203	355	147	2810	118	260	1453	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	210	342	73	91	221	386	160	3054	128	283	1579	86
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	194	236	50	130	233	333	205	2055	989	200	2179	1097
Arrive On Green	0.08	0.16	0.16	0.05	0.13	0.13	0.06	0.58	0.58	0.09	0.62	0.62
Sat Flow, veh/h	1767	1482	316	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	210	0	415	91	221	386	160	3054	128	283	1579	86
Grp Sat Flow(s),veh/h/ln	1767	0	1799	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	12.0	0.0	24.0	6.8	17.8	16.3	6.5	88.0	2.6	13.0	46.8	2.6
Cycle Q Clear(g_c), s	12.0	0.0	24.0	6.8	17.8	16.3	6.5	88.0	2.6	13.0	46.8	2.6
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	0	286	130	233	333	205	2055	989	200	2179	1097
V/C Ratio(X)	1.08	0.00	1.45	0.70	0.95	1.16	0.78	1.49	0.13	1.42	0.72	0.08
Avail Cap(c_a), veh/h	194	0	286	130	233	333	291	2055	989	200	2179	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	0.0	63.5	55.7	65.5	43.4	30.2	31.5	4.2	67.4	19.9	7.3
Incr Delay (d2), s/veh	87.8	0.0	221.8	15.6	44.1	99.5	8.4	221.5	0.1	214.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	28.6	3.6	11.3	15.0	3.3	96.4	1.0	19.4	17.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	143.7	0.0	285.3	71.4	109.6	142.9	38.6	253.0	4.3	281.6	21.2	7.3
LnGrp LOS	F	A	F	E	F	F	D	F	A	F	C	A
Approach Vol, veh/h		625			698			3342			1948	
Approach Delay, s/veh		237.7			123.1			233.2			58.4	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	93.0	11.0	29.0	12.7	98.3	16.0	24.0				
Change Period (Y+Rc), s	5.0	* 5	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	* 88	7.0	24.0	16.0	85.0	12.0	19.0				
Max Q Clear Time (g_c+M), s	11.0	90.0	8.8	26.0	8.5	48.8	14.0	19.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	14.7	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	170.5
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
143: SR 37 & Pleasant St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	315	67	84	203	355	147	2810	118	260	1453	79
Future Volume (veh/h)	193	315	67	84	203	355	147	2810	118	260	1453	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	210	342	73	91	221	386	160	3054	128	283	1579	86
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	194	236	50	130	233	333	205	2055	989	200	2179	1097
Arrive On Green	0.08	0.16	0.16	0.05	0.13	0.13	0.06	0.58	0.58	0.09	0.62	0.62
Sat Flow, veh/h	1767	1482	316	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	210	0	415	91	221	386	160	3054	128	283	1579	86
Grp Sat Flow(s),veh/h/ln	1767	0	1799	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	12.0	0.0	24.0	6.8	17.8	16.3	6.5	88.0	2.6	13.0	46.8	2.6
Cycle Q Clear(g_c), s	12.0	0.0	24.0	6.8	17.8	16.3	6.5	88.0	2.6	13.0	46.8	2.6
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	0	286	130	233	333	205	2055	989	200	2179	1097
V/C Ratio(X)	1.08	0.00	1.45	0.70	0.95	1.16	0.78	1.49	0.13	1.42	0.72	0.08
Avail Cap(c_a), veh/h	194	0	286	130	233	333	291	2055	989	200	2179	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	0.0	63.5	55.7	65.5	43.4	30.2	31.5	4.2	67.4	19.9	7.3
Incr Delay (d2), s/veh	87.8	0.0	221.8	15.6	44.1	99.5	8.4	221.5	0.1	214.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	28.6	3.6	11.3	15.0	3.3	96.4	1.0	19.4	17.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	143.7	0.0	285.3	71.4	109.6	142.9	38.6	253.0	4.3	281.6	21.2	7.3
LnGrp LOS	F	A	F	E	F	F	D	F	A	F	C	A
Approach Vol, veh/h		625			698			3342			1948	
Approach Delay, s/veh		237.7			123.1			233.2			58.4	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	93.0	11.0	29.0	12.7	98.3	16.0	24.0				
Change Period (Y+Rc), s	5.0	* 5	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	* 88	7.0	24.0	16.0	85.0	12.0	19.0				
Max Q Clear Time (g_c+max), s	13.0	90.0	8.8	26.0	8.5	48.8	14.0	19.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	14.7	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	170.5
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 144: Clover Rd/Noble Creek Dr & Pleasant St

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	355	172	97	245	1	132	61	133	52	34	21
Future Volume (veh/h)	45	355	172	97	245	1	132	61	133	52	34	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	49	386	187	105	266	1	143	66	145	57	37	23
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	495	677	574	374	677	574	637	178	391	498	369	229
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1104	1856	1572	833	1856	1572	1332	517	1135	1161	1070	665
Grp Volume(v), veh/h	49	386	187	105	266	1	143	0	211	57	0	60
Grp Sat Flow(s),veh/h/ln	1104	1856	1572	833	1856	1572	1332	0	1651	1161	0	1736
Q Serve(g_s), s	1.2	5.7	3.0	4.0	3.7	0.0	2.8	0.0	3.3	1.3	0.0	0.8
Cycle Q Clear(g_c), s	4.8	5.7	3.0	9.7	3.7	0.0	3.6	0.0	3.3	4.6	0.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.38
Lane Grp Cap(c), veh/h	495	677	574	374	677	574	637	0	569	498	0	598
V/C Ratio(X)	0.10	0.57	0.33	0.28	0.39	0.00	0.22	0.00	0.37	0.11	0.00	0.10
Avail Cap(c_a), veh/h	604	862	731	457	862	731	719	0	671	570	0	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.9	8.8	7.9	12.7	8.1	6.9	8.9	0.0	8.5	10.2	0.0	7.7
Incr Delay (d2), s/veh	0.1	0.8	0.3	0.4	0.4	0.0	0.2	0.0	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	0.7	0.6	1.1	0.0	0.6	0.0	0.9	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	9.5	8.2	13.1	8.5	6.9	9.1	0.0	8.9	10.3	0.0	7.7
LnGrp LOS	A	A	A	B	A	A	A	A	A	B	A	A
Approach Vol, veh/h	622			372			354			117		
Approach Delay, s/veh	9.2			9.8			9.0			9.0		
Approach LOS	A			A			A			A		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	16.9		17.6		16.9		17.6					
Change Period (Y+Rc), s	5.0		5.0		5.0		5.0					
Max Green Setting (Gmax), s	14.0		16.0		14.0		16.0					
Max Q Clear Time (g_c+I1), s	5.6		7.7		6.6		11.7					
Green Ext Time (p_c), s	1.1		2.1		0.2		0.8					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	9.3											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary  
 144: Clover Rd/Noble Creek Dr & Pleasant St

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	355	172	97	245	1	132	61	133	52	34	21
Future Volume (veh/h)	45	355	172	97	245	1	132	61	133	52	34	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	49	386	187	105	266	1	143	66	145	57	37	23
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	495	677	574	374	677	574	637	178	391	498	369	229
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1104	1856	1572	833	1856	1572	1332	517	1135	1161	1070	665
Grp Volume(v), veh/h	49	386	187	105	266	1	143	0	211	57	0	60
Grp Sat Flow(s),veh/h/ln	1104	1856	1572	833	1856	1572	1332	0	1651	1161	0	1736
Q Serve(g_s), s	1.2	5.7	3.0	4.0	3.7	0.0	2.8	0.0	3.3	1.3	0.0	0.8
Cycle Q Clear(g_c), s	4.8	5.7	3.0	9.7	3.7	0.0	3.6	0.0	3.3	4.6	0.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.38
Lane Grp Cap(c), veh/h	495	677	574	374	677	574	637	0	569	498	0	598
V/C Ratio(X)	0.10	0.57	0.33	0.28	0.39	0.00	0.22	0.00	0.37	0.11	0.00	0.10
Avail Cap(c_a), veh/h	604	862	731	457	862	731	719	0	671	570	0	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.9	8.8	7.9	12.7	8.1	6.9	8.9	0.0	8.5	10.2	0.0	7.7
Incr Delay (d2), s/veh	0.1	0.8	0.3	0.4	0.4	0.0	0.2	0.0	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	0.7	0.6	1.1	0.0	0.6	0.0	0.9	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	9.5	8.2	13.1	8.5	6.9	9.1	0.0	8.9	10.3	0.0	7.7
LnGrp LOS	A	A	A	B	A	A	A	A	A	B	A	A
Approach Vol, veh/h	622			372			354			117		
Approach Delay, s/veh	9.2			9.8			9.0			9.0		
Approach LOS	A			A			A			A		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	16.9		17.6		16.9		17.6					
Change Period (Y+Rc), s	5.0		5.0		5.0		5.0					
Max Green Setting (Gmax), s	14.0		16.0		14.0		16.0					
Max Q Clear Time (g_c+I1), s	5.6		7.7		6.6		11.7					
Green Ext Time (p_c), s	1.1		2.1		0.2		0.8					

Intersection Summary

HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary  
 144: Clover Rd/Noble Creek Dr & Pleasant St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	386	172	97	266	1	132	61	133	52	34	21
Future Volume (veh/h)	45	386	172	97	266	1	132	61	133	52	34	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	49	420	187	105	289	1	143	66	145	57	37	23
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	508	738	625	377	738	625	602	169	371	464	350	218
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1081	1856	1572	807	1856	1572	1332	517	1135	1161	1070	665
Grp Volume(v), veh/h	49	420	187	105	289	1	143	0	211	57	0	60
Grp Sat Flow(s),veh/h/ln	1081	1856	1572	807	1856	1572	1332	0	1651	1161	0	1736
Q Serve(g_s), s	1.2	6.4	3.0	4.2	4.0	0.0	3.0	0.0	3.6	1.4	0.0	0.9
Cycle Q Clear(g_c), s	5.3	6.4	3.0	10.6	4.0	0.0	3.9	0.0	3.6	5.0	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.38
Lane Grp Cap(c), veh/h	508	738	625	377	738	625	602	0	540	464	0	568
V/C Ratio(X)	0.10	0.57	0.30	0.28	0.39	0.00	0.24	0.00	0.39	0.12	0.00	0.11
Avail Cap(c_a), veh/h	791	1225	1038	589	1225	1038	752	0	727	595	0	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.7	8.5	7.5	12.7	7.8	6.6	9.9	0.0	9.4	11.4	0.0	8.5
Incr Delay (d2), s/veh	0.1	0.7	0.3	0.4	0.3	0.0	0.2	0.0	0.5	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.9	0.7	0.6	1.2	0.0	0.7	0.0	1.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.8	9.2	7.8	13.1	8.2	6.6	10.1	0.0	9.9	11.5	0.0	8.6
LnGrp LOS	A	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		656			395			354			117	
Approach Delay, s/veh		8.8			9.5			10.0			10.0	
Approach LOS		A			A			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.9		19.5		16.9		19.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		16.0		24.0		16.0		24.0				
Max Q Clear Time (g_c+I1), s		5.9		8.4		7.0		12.6				
Green Ext Time (p_c), s		1.2		3.2		0.3		1.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				9.4								
HCM 6th LOS				A								



HCM 6th Signalized Intersection Summary  
 144: Clover Rd/Noble Creek Dr & Pleasant St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	386	172	97	266	1	132	61	133	52	34	21
Future Volume (veh/h)	45	386	172	97	266	1	132	61	133	52	34	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	49	420	187	105	289	1	143	66	145	57	37	23
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	508	738	625	377	738	625	602	169	371	464	350	218
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1081	1856	1572	807	1856	1572	1332	517	1135	1161	1070	665
Grp Volume(v), veh/h	49	420	187	105	289	1	143	0	211	57	0	60
Grp Sat Flow(s),veh/h/ln	1081	1856	1572	807	1856	1572	1332	0	1651	1161	0	1736
Q Serve(g_s), s	1.2	6.4	3.0	4.2	4.0	0.0	3.0	0.0	3.6	1.4	0.0	0.9
Cycle Q Clear(g_c), s	5.3	6.4	3.0	10.6	4.0	0.0	3.9	0.0	3.6	5.0	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.38
Lane Grp Cap(c), veh/h	508	738	625	377	738	625	602	0	540	464	0	568
V/C Ratio(X)	0.10	0.57	0.30	0.28	0.39	0.00	0.24	0.00	0.39	0.12	0.00	0.11
Avail Cap(c_a), veh/h	791	1225	1038	589	1225	1038	752	0	727	595	0	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.7	8.5	7.5	12.7	7.8	6.6	9.9	0.0	9.4	11.4	0.0	8.5
Incr Delay (d2), s/veh	0.1	0.7	0.3	0.4	0.3	0.0	0.2	0.0	0.5	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.9	0.7	0.6	1.2	0.0	0.7	0.0	1.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.8	9.2	7.8	13.1	8.2	6.6	10.1	0.0	9.9	11.5	0.0	8.6
LnGrp LOS	A	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		656			395			354			117	
Approach Delay, s/veh		8.8			9.5			10.0			10.0	
Approach LOS		A			A			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.9		19.5		16.9		19.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		16.0		24.0		16.0		24.0				
Max Q Clear Time (g_c+1), s		5.9		8.4		7.0		12.6				
Green Ext Time (p_c), s		1.2		3.2		0.3		1.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				9.4								
HCM 6th LOS				A								

Intersection					
Intersection Delay, s/veh	5.0				
Intersection LOS	A				
Approach	EB		WB		SB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	660		534		110
Demand Flow Rate, veh/h	680		550		113
Vehicles Circulating, veh/h	74		124		387
Vehicles Exiting, veh/h	426		630		287
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	5.2		4.9		4.6
Approach LOS	A		A		A
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.471	0.529	0.469	0.531	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	320	360	258	292	113
Cap Entry Lane, veh/h	1261	1334	1204	1278	1022
Entry HV Adj Factor	0.969	0.971	0.972	0.969	0.973
Flow Entry, veh/h	310	350	251	283	110
Cap Entry, veh/h	1222	1295	1171	1238	995
V/C Ratio	0.254	0.270	0.214	0.228	0.111
Control Delay, s/veh	5.2	5.2	5.0	4.9	4.6
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0

Intersection					
Intersection Delay, s/veh	5.0				
Intersection LOS	A				
Approach	EB		WB		SB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	660		534		110
Demand Flow Rate, veh/h	680		550		113
Vehicles Circulating, veh/h	74		124		387
Vehicles Exiting, veh/h	426		630		287
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	5.2		4.9		4.6
Approach LOS	A		A		A
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.471	0.529	0.469	0.531	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
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Cap Entry, veh/h	1222	1295	1171	1238	995
V/C Ratio	0.254	0.270	0.214	0.228	0.111
Control Delay, s/veh	5.2	5.2	5.0	4.9	4.6
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0

Intersection					
Intersection Delay, s/veh	5.2				
Intersection LOS	A				
Approach	EB		WB		SB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	694		557		110
Demand Flow Rate, veh/h	715		574		113
Vehicles Circulating, veh/h	74		124		411
Vehicles Exiting, veh/h	450		665		287
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	5.3		5.0		4.7
Approach LOS	A		A		A
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	336	379	270	304	113
Cap Entry Lane, veh/h	1261	1334	1204	1278	1001
Entry HV Adj Factor	0.970	0.970	0.970	0.971	0.973
Flow Entry, veh/h	326	368	262	295	110
Cap Entry, veh/h	1224	1294	1168	1241	975
V/C Ratio	0.266	0.284	0.224	0.238	0.113
Control Delay, s/veh	5.3	5.3	5.1	5.0	4.7
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0

Intersection					
Intersection Delay, s/veh	5.2				
Intersection LOS	A				
Approach	EB		WB		SB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	694		557		110
Demand Flow Rate, veh/h	715		574		113
Vehicles Circulating, veh/h	74		124		411
Vehicles Exiting, veh/h	450		665		287
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	5.3		5.0		4.7
Approach LOS	A		A		A
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	336	379	270	304	113
Cap Entry Lane, veh/h	1261	1334	1204	1278	1001
Entry HV Adj Factor	0.970	0.970	0.970	0.971	0.973
Flow Entry, veh/h	326	368	262	295	110
Cap Entry, veh/h	1224	1294	1168	1241	975
V/C Ratio	0.266	0.284	0.224	0.238	0.113
Control Delay, s/veh	5.3	5.3	5.1	5.0	4.7
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	0	539	12	32	342	0	21	0	45	2	0	0
Future Vol, veh/h	0	539	12	32	342	0	21	0	45	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	586	13	35	372	0	23	0	49	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	372	0	0	599	0	0	849	1035	300	735	1041	186
Stage 1	-	-	-	-	-	-	593	593	-	442	442	-
Stage 2	-	-	-	-	-	-	256	442	-	293	599	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	1176	-	-	967	-	-	253	229	693	306	227	821
Stage 1	-	-	-	-	-	-	456	489	-	562	572	-
Stage 2	-	-	-	-	-	-	723	572	-	688	486	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1176	-	-	967	-	-	246	221	693	277	219	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	221	-	277	219	-
Stage 1	-	-	-	-	-	-	456	489	-	562	551	-
Stage 2	-	-	-	-	-	-	697	551	-	639	486	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			14.8			18.1		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	439	1176	-	-	967	-	-	277
HCM Lane V/C Ratio	0.163	-	-	-	0.036	-	-	0.008
HCM Control Delay (s)	14.8	0	-	-	8.9	-	-	18.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	0	539	12	32	342	0	21	0	45	2	0	0
Future Vol, veh/h	0	539	12	32	342	0	21	0	45	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	586	13	35	372	0	23	0	49	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	372	0	0	599	0	0	849	1035	300	735	1041	186
Stage 1	-	-	-	-	-	-	593	593	-	442	442	-
Stage 2	-	-	-	-	-	-	256	442	-	293	599	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	1176	-	-	967	-	-	253	229	693	306	227	821
Stage 1	-	-	-	-	-	-	456	489	-	562	572	-
Stage 2	-	-	-	-	-	-	723	572	-	688	486	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1176	-	-	967	-	-	246	221	693	277	219	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	221	-	277	219	-
Stage 1	-	-	-	-	-	-	456	489	-	562	551	-
Stage 2	-	-	-	-	-	-	697	551	-	639	486	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			14.8			18.1		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	439	1176	-	-	967	-	-	277
HCM Lane V/C Ratio	0.163	-	-	-	0.036	-	-	0.008
HCM Control Delay (s)	14.8	0	-	-	8.9	-	-	18.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕		↵	↕			↕			↕	
Traffic Vol, veh/h	0	570	12	32	363	0	21	0	45	2	0	0
Future Vol, veh/h	0	570	12	32	363	0	21	0	45	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	620	13	35	395	0	23	0	49	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	395	0	0	633	0	0	895	1092	317	775	1098	198
Stage 1	-	-	-	-	-	-	627	627	-	465	465	-
Stage 2	-	-	-	-	-	-	268	465	-	310	633	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	1153	-	-	939	-	-	234	212	676	286	210	807
Stage 1	-	-	-	-	-	-	436	472	-	544	559	-
Stage 2	-	-	-	-	-	-	712	559	-	672	469	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1153	-	-	939	-	-	227	204	676	258	202	807
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	204	-	258	202	-
Stage 1	-	-	-	-	-	-	436	472	-	544	538	-
Stage 2	-	-	-	-	-	-	685	538	-	623	469	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.7			15.5			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	415	1153	-	-	939	-	-	258
HCM Lane V/C Ratio	0.173	-	-	-	0.037	-	-	0.008
HCM Control Delay (s)	15.5	0	-	-	9	-	-	19.1
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0



Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕		↵	↕			↕			↕	
Traffic Vol, veh/h	0	570	12	32	363	0	21	0	45	2	0	0
Future Vol, veh/h	0	570	12	32	363	0	21	0	45	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	620	13	35	395	0	23	0	49	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	395	0	0	633	0	0	895	1092	317	775	1098	198
Stage 1	-	-	-	-	-	-	627	627	-	465	465	-
Stage 2	-	-	-	-	-	-	268	465	-	310	633	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	1153	-	-	939	-	-	234	212	676	286	210	807
Stage 1	-	-	-	-	-	-	436	472	-	544	559	-
Stage 2	-	-	-	-	-	-	712	559	-	672	469	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1153	-	-	939	-	-	227	204	676	258	202	807
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	204	-	258	202	-
Stage 1	-	-	-	-	-	-	436	472	-	544	538	-
Stage 2	-	-	-	-	-	-	685	538	-	623	469	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.7			15.5			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	415	1153	-	-	939	-	-	258
HCM Lane V/C Ratio	0.173	-	-	-	0.037	-	-	0.008
HCM Control Delay (s)	15.5	0	-	-	9	-	-	19.1
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0

Intersection								
Intersection Delay, s/veh	9.2							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		2		1	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	383		379		659		454	
Demand Flow Rate, veh/h	395		391		678		468	
Vehicles Circulating, veh/h	467		563		480		272	
Vehicles Exiting, veh/h	273		595		382		682	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	6.2		6.9		13.3		7.7	
Approach LOS	A		A		B		A	
Lane	Left	Right	Left	Right	Left	Right	Left	
Designated Moves	LT	TR	LT	TR	LT	R	LTR	
Assumed Moves	LT	TR	LT	TR	LT	R	LTR	
RT Channelized								
Lane Util	0.471	0.529	0.471	0.529	0.830	0.170	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.328	
Entry Flow, veh/h	186	209	184	207	563	115	468	
Cap Entry Lane, veh/h	878	955	804	880	868	944	1127	
Entry HV Adj Factor	0.968	0.971	0.969	0.971	0.971	0.974	0.971	
Flow Entry, veh/h	180	203	178	201	547	112	454	
Cap Entry, veh/h	850	927	779	855	843	920	1094	
V/C Ratio	0.212	0.219	0.229	0.235	0.649	0.122	0.415	
Control Delay, s/veh	6.4	6.1	7.1	6.7	15.0	5.1	7.7	
LOS	A	A	A	A	C	A	A	
95th %tile Queue, veh	1	1	1	1	5	0	2	

Intersection								
Intersection Delay, s/veh	9.2							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		2		1	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	383		379		659		454	
Demand Flow Rate, veh/h	395		391		678		468	
Vehicles Circulating, veh/h	467		563		480		272	
Vehicles Exiting, veh/h	273		595		382		682	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	6.2		6.9		13.3		7.7	
Approach LOS	A		A		B		A	
Lane	Left	Right	Left	Right	Left	Right	Left	
Designated Moves	LT	TR	LT	TR	LT	R	LTR	
Assumed Moves	LT	TR	LT	TR	LT	R	LTR	
RT Channelized								
Lane Util	0.471	0.529	0.471	0.529	0.830	0.170	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.328	
Entry Flow, veh/h	186	209	184	207	563	115	468	
Cap Entry Lane, veh/h	878	955	804	880	868	944	1127	
Entry HV Adj Factor	0.968	0.971	0.969	0.971	0.971	0.974	0.971	
Flow Entry, veh/h	180	203	178	201	547	112	454	
Cap Entry, veh/h	850	927	779	855	843	920	1094	
V/C Ratio	0.212	0.219	0.229	0.235	0.649	0.122	0.415	
Control Delay, s/veh	6.4	6.1	7.1	6.7	15.0	5.1	7.7	
LOS	A	A	A	A	C	A	A	
95th %tile Queue, veh	1	1	1	1	5	0	2	

Intersection								
Intersection Delay, s/veh	111.8							
Intersection LOS	F							
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		2		1	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	863		402		1349		454	
Demand Flow Rate, veh/h	889		414		1389		468	
Vehicles Circulating, veh/h	467		1274		515		1006	
Vehicles Exiting, veh/h	1007		630		841		682	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	10.2		17.4		233.2		28.0	
Approach LOS	B		C		F		D	
Lane	Left	Right	Left	Right	Left	Right	Left	
Designated Moves	LT	TR	LT	TR	LT	R	LTR	
Assumed Moves	LT	R	LT	TR	LT	R	LTR	
RT Channelized								
Lane Util	0.463	0.537	0.471	0.529	0.917	0.083	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.328	
Entry Flow, veh/h	412	477	195	219	1274	115	468	
Cap Entry Lane, veh/h	878	955	418	481	841	917	604	
Entry HV Adj Factor	0.971	0.971	0.968	0.972	0.971	0.974	0.971	
Flow Entry, veh/h	400	463	189	213	1237	112	454	
Cap Entry, veh/h	853	927	405	467	816	893	586	
V/C Ratio	0.469	0.500	0.466	0.456	1.516	0.125	0.775	
Control Delay, s/veh	10.2	10.2	18.8	16.3	253.8	5.2	28.0	
LOS	B	B	C	C	F	A	D	
95th %tile Queue, veh	3	3	2	2	60	0	7	

Intersection								
Intersection Delay, s/veh	111.8							
Intersection LOS	F							
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		2		1	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	863		402		1349		454	
Demand Flow Rate, veh/h	889		414		1389		468	
Vehicles Circulating, veh/h	467		1274		515		1006	
Vehicles Exiting, veh/h	1007		630		841		682	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	10.2		17.4		233.2		28.0	
Approach LOS	B		C		F		D	
Lane	Left	Right	Left	Right	Left	Right	Left	
Designated Moves	LT	TR	LT	TR	LT	R	LTR	
Assumed Moves	LT	R	LT	TR	LT	R	LTR	
RT Channelized								
Lane Util	0.463	0.537	0.471	0.529	0.917	0.083	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.328	
Entry Flow, veh/h	412	477	195	219	1274	115	468	
Cap Entry Lane, veh/h	878	955	418	481	841	917	604	
Entry HV Adj Factor	0.971	0.971	0.968	0.972	0.971	0.974	0.971	
Flow Entry, veh/h	400	463	189	213	1237	112	454	
Cap Entry, veh/h	853	927	405	467	816	893	586	
V/C Ratio	0.469	0.500	0.466	0.456	1.516	0.125	0.775	
Control Delay, s/veh	10.2	10.2	18.8	16.3	253.8	5.2	28.0	
LOS	B	B	C	C	F	A	D	
95th %tile Queue, veh	3	3	2	2	60	0	7	

Intersection					
Intersection Delay, s/veh	0.0				
Intersection LOS	-				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	0	0	0	0	
Demand Flow Rate, veh/h	0	0	0	0	
Vehicles Circulating, veh/h	0	0	0	0	
Vehicles Exiting, veh/h	0	0	0	0	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	0.0	0.0	0.0	0.0	
Approach LOS	-	-	-	-	
Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized	Yield				
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	0	4.976	4.976
Entry Flow, veh/h	0	0	1380	0	0
Cap Entry Lane, veh/h	1380	1380	0.971	1380	1380
Entry HV Adj Factor	1.000	1.000	0	1.000	1.000
Flow Entry, veh/h	0	0	1340	0	0
Cap Entry, veh/h	1380	1380	0.000	1380	1380
V/C Ratio	0.000	0.000	2.7	0.000	0.000
Control Delay, s/veh	2.6	2.6	A	2.6	2.6
LOS	A	A	0	A	A
95th %tile Queue, veh	0	0	0	0	0

Intersection					
Intersection Delay, s/veh	0.0				
Intersection LOS	-				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	0	0	0	0	
Demand Flow Rate, veh/h	0	0	0	0	
Vehicles Circulating, veh/h	0	0	0	0	
Vehicles Exiting, veh/h	0	0	0	0	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	0.0	0.0	0.0	0.0	
Approach LOS	-	-	-	-	
Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized	Yield				
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	0	4.976	4.976
Entry Flow, veh/h	0	0	1380	0	0
Cap Entry Lane, veh/h	1380	1380	0.971	1380	1380
Entry HV Adj Factor	1.000	1.000	0	1.000	1.000
Flow Entry, veh/h	0	0	1340	0	0
Cap Entry, veh/h	1380	1380	0.000	1380	1380
V/C Ratio	0.000	0.000	2.7	0.000	0.000
Control Delay, s/veh	2.6	2.6	A	2.6	2.6
LOS	A	A	0	A	A
95th %tile Queue, veh	0	0	0	0	0

Intersection					
Intersection Delay, s/veh	0.0				
Intersection LOS	-				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	0	0	0	0	
Demand Flow Rate, veh/h	0	0	0	0	
Vehicles Circulating, veh/h	0	0	0	0	
Vehicles Exiting, veh/h	0	0	0	0	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	0.0	0.0	0.0	0.0	
Approach LOS	-	-	-	-	
Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized	Yield				
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	0	4.976	4.976
Entry Flow, veh/h	0	0	1380	0	0
Cap Entry Lane, veh/h	1380	1380	0.971	1380	1380
Entry HV Adj Factor	1.000	1.000	0	1.000	1.000
Flow Entry, veh/h	0	0	1340	0	0
Cap Entry, veh/h	1380	1380	0.000	1380	1380
V/C Ratio	0.000	0.000	2.7	0.000	0.000
Control Delay, s/veh	2.6	2.6	A	2.6	2.6
LOS	A	A	0	A	A
95th %tile Queue, veh	0	0	0	0	0



Intersection					
Intersection Delay, s/veh	0.0				
Intersection LOS	-				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	0	0	0	0	
Demand Flow Rate, veh/h	0	0	0	0	
Vehicles Circulating, veh/h	0	0	0	0	
Vehicles Exiting, veh/h	0	0	0	0	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	0.0	0.0	0.0	0.0	
Approach LOS	-	-	-	-	
Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized	Yield				
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	0	4.976	4.976
Entry Flow, veh/h	0	0	1380	0	0
Cap Entry Lane, veh/h	1380	1380	0.971	1380	1380
Entry HV Adj Factor	1.000	1.000	0	1.000	1.000
Flow Entry, veh/h	0	0	1340	0	0
Cap Entry, veh/h	1380	1380	0.000	1380	1380
V/C Ratio	0.000	0.000	2.7	0.000	0.000
Control Delay, s/veh	2.6	2.6	A	2.6	2.6
LOS	A	A	0	A	A
95th %tile Queue, veh	0	0	0	0	0

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↑		↻
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	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	-	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1	0	- 1
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.13	-	- 6.23
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.227	-	- 3.327
Pot Cap-1 Maneuver	-	-	1615	-	0 1081
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1615	-	- 1081
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1615	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑		↔
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	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	-	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1	0	1
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.13	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.227	-	3.327
Pot Cap-1 Maneuver	-	-	1615	-	1081
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1615	-	1081
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1615	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↑		↻
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	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	-	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1	0	- 1
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.13	-	- 6.23
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.227	-	- 3.327
Pot Cap-1 Maneuver	-	-	1615	-	0 1081
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1615	-	- 1081
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1615	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑		↔
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	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	-	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1	0	- 1
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.13	-	- 6.23
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.227	-	- 3.327
Pot Cap-1 Maneuver	-	-	1615	-	0 1081
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1615	-	- 1081
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1615	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	40	50	76	51	27	115
Future Vol, veh/h	40	50	76	51	27	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	43	54	83	55	29	125
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	8.4	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	19%	0%	60%
Vol Thru, %	0%	44%	40%
Vol Right, %	81%	56%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	142	90	127
LT Vol	27	0	76
Through Vol	0	40	51
RT Vol	115	50	0
Lane Flow Rate	154	98	138
Geometry Grp	1	1	1
Degree of Util (X)	0.173	0.111	0.169
Departure Headway (Hd)	4.032	4.098	4.419
Convergence, Y/N	Yes	Yes	Yes
Cap	895	878	799
Service Time	2.035	2.111	2.513
HCM Lane V/C Ratio	0.172	0.112	0.173
HCM Control Delay	7.9	7.6	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.4	0.6

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶	↷
Traffic Vol, veh/h	40	50	76	51	27	115
Future Vol, veh/h	40	50	76	51	27	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	43	54	83	55	29	125
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	8.4	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	19%	0%	60%
Vol Thru, %	0%	44%	40%
Vol Right, %	81%	56%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	142	90	127
LT Vol	27	0	76
Through Vol	0	40	51
RT Vol	115	50	0
Lane Flow Rate	154	98	138
Geometry Grp	1	1	1
Degree of Util (X)	0.173	0.111	0.169
Departure Headway (Hd)	4.032	4.098	4.419
Convergence, Y/N	Yes	Yes	Yes
Cap	895	878	799
Service Time	2.035	2.111	2.513
HCM Lane V/C Ratio	0.172	0.112	0.173
HCM Control Delay	7.9	7.6	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.4	0.6

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	87	50	79	69	28	118
Future Vol, veh/h	87	50	79	69	28	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	95	54	86	75	30	128
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.2	8.8	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	19%	0%	53%
Vol Thru, %	0%	64%	47%
Vol Right, %	81%	36%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	146	137	148
LT Vol	28	0	79
Through Vol	0	87	69
RT Vol	118	50	0
Lane Flow Rate	159	149	161
Geometry Grp	1	1	1
Degree of Util (X)	0.185	0.176	0.204
Departure Headway (Hd)	4.202	4.263	4.565
Convergence, Y/N	Yes	Yes	Yes
Cap	855	843	788
Service Time	2.22	2.282	2.584
HCM Lane V/C Ratio	0.186	0.177	0.204
HCM Control Delay	8.2	8.2	8.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.6	0.8



Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	87	50	79	69	28	118
Future Vol, veh/h	87	50	79	69	28	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	95	54	86	75	30	128
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.2	8.8	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	19%	0%	53%
Vol Thru, %	0%	64%	47%
Vol Right, %	81%	36%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	146	137	148
LT Vol	28	0	79
Through Vol	0	87	69
RT Vol	118	50	0
Lane Flow Rate	159	149	161
Geometry Grp	1	1	1
Degree of Util (X)	0.185	0.176	0.204
Departure Headway (Hd)	4.202	4.263	4.565
Convergence, Y/N	Yes	Yes	Yes
Cap	855	843	788
Service Time	2.22	2.282	2.584
HCM Lane V/C Ratio	0.186	0.177	0.204
HCM Control Delay	8.2	8.2	8.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.6	0.8

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	6	95	71	21	34	22
Future Vol, veh/h	6	95	71	21	34	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, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	7	103	77	23	37	24

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	100	0	-	0	206 89
Stage 1	-	-	-	-	89 -
Stage 2	-	-	-	-	117 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1486	-	-	-	780 966
Stage 1	-	-	-	-	932 -
Stage 2	-	-	-	-	906 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1486	-	-	-	776 966
Mov Cap-2 Maneuver	-	-	-	-	776 -
Stage 1	-	-	-	-	927 -
Stage 2	-	-	-	-	906 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1486	-	-	-	841
HCM Lane V/C Ratio	0.004	-	-	-	0.072
HCM Control Delay (s)	7.4	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	6	95	71	21	34	22
Future Vol, veh/h	6	95	71	21	34	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, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	7	103	77	23	37	24

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	100	0	-	0	206 89
Stage 1	-	-	-	-	89 -
Stage 2	-	-	-	-	117 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1486	-	-	-	780 966
Stage 1	-	-	-	-	932 -
Stage 2	-	-	-	-	906 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1486	-	-	-	776 966
Mov Cap-2 Maneuver	-	-	-	-	776 -
Stage 1	-	-	-	-	927 -
Stage 2	-	-	-	-	906 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1486	-	-	-	841
HCM Lane V/C Ratio	0.004	-	-	-	0.072
HCM Control Delay (s)	7.4	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	19	142	89	22	34	45
Future Vol, veh/h	19	142	89	22	34	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, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	154	97	24	37	49

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	121	0	-	0	305 109
Stage 1	-	-	-	-	109 -
Stage 2	-	-	-	-	196 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1460	-	-	-	685 942
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	835 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1460	-	-	-	674 942
Mov Cap-2 Maneuver	-	-	-	-	674 -
Stage 1	-	-	-	-	898 -
Stage 2	-	-	-	-	835 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1460	-	-	-	804
HCM Lane V/C Ratio	0.014	-	-	-	0.107
HCM Control Delay (s)	7.5	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	19	142	89	22	34	45
Future Vol, veh/h	19	142	89	22	34	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, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	154	97	24	37	49

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	121	0	0	305	109
Stage 1	-	-	-	109	-
Stage 2	-	-	-	196	-
Critical Hdwy	4.13	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	3.527	3.327
Pot Cap-1 Maneuver	1460	-	-	685	942
Stage 1	-	-	-	913	-
Stage 2	-	-	-	835	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1460	-	-	674	942
Mov Cap-2 Maneuver	-	-	-	674	-
Stage 1	-	-	-	898	-
Stage 2	-	-	-	835	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1460	-	-	-	804
HCM Lane V/C Ratio	0.014	-	-	-	0.107
HCM Control Delay (s)	7.5	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	11	35	69	35	31
Future Vol, veh/h	80	11	35	69	35	31
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	87	12	38	75	38	34

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	186	76	0	0	113	0
Stage 1	76	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	801	982	-	-	1470	-
Stage 1	944	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	780	982	-	-	1470	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	888	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	800	1470
HCM Lane V/C Ratio	-	-	0.124	0.026
HCM Control Delay (s)	-	-	10.1	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	11	35	69	35	31
Future Vol, veh/h	80	11	35	69	35	31
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	87	12	38	75	38	34

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	186	76	0	0	113	0
Stage 1	76	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	801	982	-	-	1470	-
Stage 1	944	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	780	982	-	-	1470	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	888	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	800	1470
HCM Lane V/C Ratio	-	-	0.124	0.026
HCM Control Delay (s)	-	-	10.1	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	86	22	49	73	35	91
Future Vol, veh/h	86	22	49	73	35	91
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	93	24	53	79	38	99

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	268	93	0	0	132	0
Stage 1	93	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	719	961	-	-	1447	-
Stage 1	928	-	-	-	-	-
Stage 2	853	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	699	961	-	-	1447	-
Mov Cap-2 Maneuver	699	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	740	1447
HCM Lane V/C Ratio	-	-	0.159	0.026
HCM Control Delay (s)	-	-	10.8	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1



Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	86	22	49	73	35	91
Future Vol, veh/h	86	22	49	73	35	91
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	93	24	53	79	38	99

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	268	93	0	0	132	0
Stage 1	93	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	719	961	-	-	1447	-
Stage 1	928	-	-	-	-	-
Stage 2	853	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	699	961	-	-	1447	-
Mov Cap-2 Maneuver	699	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	740	1447
HCM Lane V/C Ratio	-	-	0.159	0.026
HCM Control Delay (s)	-	-	10.8	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	69	133	19	20	104	34	31	237	33	22	148	19
Future Vol, veh/h	69	133	19	20	104	34	31	237	33	22	148	19
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	75	145	21	22	113	37	34	258	36	24	161	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.4	11.1	13.9	11.5
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	31%	13%	12%
Vol Thru, %	79%	60%	66%	78%
Vol Right, %	11%	9%	22%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	301	221	158	189
LT Vol	31	69	20	22
Through Vol	237	133	104	148
RT Vol	33	19	34	19
Lane Flow Rate	327	240	172	205
Geometry Grp	1	1	1	1
Degree of Util (X)	0.497	0.385	0.276	0.324
Departure Headway (Hd)	5.466	5.767	5.791	5.676
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	658	620	617	631
Service Time	3.524	3.832	3.862	3.744
HCM Lane V/C Ratio	0.497	0.387	0.279	0.325
HCM Control Delay	13.9	12.4	11.1	11.5
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.8	1.8	1.1	1.4

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	69	133	19	20	104	34	31	237	33	22	148	19
Future Vol, veh/h	69	133	19	20	104	34	31	237	33	22	148	19
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	75	145	21	22	113	37	34	258	36	24	161	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.4	11.1	13.9	11.5
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	31%	13%	12%
Vol Thru, %	79%	60%	66%	78%
Vol Right, %	11%	9%	22%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	301	221	158	189
LT Vol	31	69	20	22
Through Vol	237	133	104	148
RT Vol	33	19	34	19
Lane Flow Rate	327	240	172	205
Geometry Grp	1	1	1	1
Degree of Util (X)	0.497	0.385	0.276	0.324
Departure Headway (Hd)	5.466	5.767	5.791	5.676
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	658	620	617	631
Service Time	3.524	3.832	3.862	3.744
HCM Lane V/C Ratio	0.497	0.387	0.279	0.325
HCM Control Delay	13.9	12.4	11.1	11.5
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.8	1.8	1.1	1.4

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	72	171	21	20	140	34	31	264	34	25	174	21
Future Vol, veh/h	72	171	21	20	140	34	31	264	34	25	174	21
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	78	186	23	22	152	37	34	287	37	27	189	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.6	13.2	17.7	13.8
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	27%	10%	11%
Vol Thru, %	80%	65%	72%	79%
Vol Right, %	10%	8%	18%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	329	264	194	220
LT Vol	31	72	20	25
Through Vol	264	171	140	174
RT Vol	34	21	34	21
Lane Flow Rate	358	287	211	239
Geometry Grp	1	1	1	1
Degree of Util (X)	0.599	0.502	0.374	0.418
Departure Headway (Hd)	6.032	6.297	6.391	6.288
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	597	571	561	572
Service Time	4.078	4.347	4.447	4.34
HCM Lane V/C Ratio	0.6	0.503	0.376	0.418
HCM Control Delay	17.7	15.6	13.2	13.8
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	4	2.8	1.7	2.1

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	72	171	21	20	140	34	31	264	34	25	174	21
Future Vol, veh/h	72	171	21	20	140	34	31	264	34	25	174	21
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	78	186	23	22	152	37	34	287	37	27	189	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.6	13.2	17.7	13.8
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	27%	10%	11%
Vol Thru, %	80%	65%	72%	79%
Vol Right, %	10%	8%	18%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	329	264	194	220
LT Vol	31	72	20	25
Through Vol	264	171	140	174
RT Vol	34	21	34	21
Lane Flow Rate	358	287	211	239
Geometry Grp	1	1	1	1
Degree of Util (X)	0.599	0.502	0.374	0.418
Departure Headway (Hd)	6.032	6.297	6.391	6.288
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	597	571	561	572
Service Time	4.078	4.347	4.447	4.34
HCM Lane V/C Ratio	0.6	0.503	0.376	0.418
HCM Control Delay	17.7	15.6	13.2	13.8
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	4	2.8	1.7	2.1

HCM 6th Signalized Intersection Summary  
 156: Hazel Dell Rd & 169th St

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	93	27	80	57	23	16	104	1061	30	10	653	53
Future Volume (veh/h)	93	27	80	57	23	16	104	1061	30	10	653	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	101	29	87	62	25	17	113	1153	33	11	710	58
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	550	92	277	473	210	143	375	1275	690	185	984	593
Arrive On Green	0.10	0.23	0.23	0.08	0.20	0.20	0.10	0.36	0.36	0.02	0.28	0.28
Sat Flow, veh/h	1767	409	1226	1767	1029	700	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	101	0	116	62	0	42	113	1153	33	11	710	58
Grp Sat Flow(s),veh/h/ln	1767	0	1635	1767	0	1730	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	2.4	0.0	3.4	1.5	0.0	1.1	2.3	17.7	0.7	0.3	10.3	1.4
Cycle Q Clear(g_c), s	2.4	0.0	3.4	1.5	0.0	1.1	2.3	17.7	0.7	0.3	10.3	1.4
Prop In Lane	1.00		0.75	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	550	0	369	473	0	353	375	1275	690	185	984	593
V/C Ratio(X)	0.18	0.00	0.31	0.13	0.00	0.12	0.30	0.90	0.05	0.06	0.72	0.10
Avail Cap(c_a), veh/h	594	0	369	555	0	365	411	1301	701	368	1301	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	0.0	18.4	15.3	0.0	18.5	12.0	17.2	9.2	15.6	18.5	11.5
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.1	0.0	0.1	0.4	9.0	0.0	0.1	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.1	0.5	0.0	0.4	0.7	7.2	0.2	0.1	3.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	18.9	15.4	0.0	18.6	12.4	26.3	9.2	15.7	19.9	11.5
LnGrp LOS	B	A	B	B	A	B	B	C	A	B	B	B
Approach Vol, veh/h		217			104			1299			779	
Approach Delay, s/veh		17.0			16.7			24.6			19.2	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	25.6	8.4	17.8	9.8	20.9	9.6	16.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	21.0	7.0	12.0	7.0	21.0	7.0	12.0					
Max Q Clear Time (g_c+1), s	19.7	3.5	5.4	4.3	12.3	4.4	3.1					
Green Ext Time (p_c), s	0.0	0.9	0.0	0.2	0.1	3.0	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary  
 156: Hazel Dell Rd & 169th St

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	93	27	80	57	23	16	104	1061	30	10	653	53
Future Volume (veh/h)	93	27	80	57	23	16	104	1061	30	10	653	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	101	29	87	62	25	17	113	1153	33	11	710	58
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	550	92	277	473	210	143	375	1275	690	185	984	593
Arrive On Green	0.10	0.23	0.23	0.08	0.20	0.20	0.10	0.36	0.36	0.02	0.28	0.28
Sat Flow, veh/h	1767	409	1226	1767	1029	700	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	101	0	116	62	0	42	113	1153	33	11	710	58
Grp Sat Flow(s),veh/h/ln	1767	0	1635	1767	0	1730	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	2.4	0.0	3.4	1.5	0.0	1.1	2.3	17.7	0.7	0.3	10.3	1.4
Cycle Q Clear(g_c), s	2.4	0.0	3.4	1.5	0.0	1.1	2.3	17.7	0.7	0.3	10.3	1.4
Prop In Lane	1.00		0.75	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	550	0	369	473	0	353	375	1275	690	185	984	593
V/C Ratio(X)	0.18	0.00	0.31	0.13	0.00	0.12	0.30	0.90	0.05	0.06	0.72	0.10
Avail Cap(c_a), veh/h	594	0	369	555	0	365	411	1301	701	368	1301	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	0.0	18.4	15.3	0.0	18.5	12.0	17.2	9.2	15.6	18.5	11.5
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.1	0.0	0.1	0.4	9.0	0.0	0.1	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.1	0.5	0.0	0.4	0.7	7.2	0.2	0.1	3.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	18.9	15.4	0.0	18.6	12.4	26.3	9.2	15.7	19.9	11.5
LnGrp LOS	B	A	B	B	A	B	B	C	A	B	B	B
Approach Vol, veh/h		217			104			1299			779	
Approach Delay, s/veh		17.0			16.7			24.6			19.2	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	25.6	8.4	17.8	9.8	20.9	9.6	16.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	21.0	7.0	12.0	7.0	21.0	7.0	12.0					
Max Q Clear Time (g_c+1), s	19.7	3.5	5.4	4.3	12.3	4.4	3.1					
Green Ext Time (p_c), s	0.0	0.9	0.0	0.2	0.1	3.0	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary  
156: Hazel Dell Rd & 169th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	140	29	106	57	65	16	157	1450	41	10	807	54
Future Volume (veh/h)	140	29	106	57	65	16	157	1450	41	10	807	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	152	32	115	62	71	17	171	1576	45	11	877	59
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	417	66	238	350	235	56	386	1695	864	151	1438	787
Arrive On Green	0.09	0.19	0.19	0.07	0.16	0.16	0.09	0.48	0.48	0.02	0.41	0.41
Sat Flow, veh/h	1767	354	1272	1767	1447	346	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	152	0	147	62	0	88	171	1576	45	11	877	59
Grp Sat Flow(s),veh/h/ln	1767	0	1627	1767	0	1793	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	5.2	0.0	5.9	2.1	0.0	3.2	3.7	30.9	1.0	0.3	14.4	1.4
Cycle Q Clear(g_c), s	5.2	0.0	5.9	2.1	0.0	3.2	3.7	30.9	1.0	0.3	14.4	1.4
Prop In Lane	1.00		0.78	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	417	0	304	350	0	292	386	1695	864	151	1438	787
V/C Ratio(X)	0.36	0.00	0.48	0.18	0.00	0.30	0.44	0.93	0.05	0.07	0.61	0.07
Avail Cap(c_a), veh/h	421	0	304	397	0	292	439	1724	876	285	1628	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	26.7	22.7	0.0	27.1	11.7	17.9	7.7	16.8	17.2	9.5
Incr Delay (d2), s/veh	0.5	0.0	1.2	0.2	0.0	0.6	0.8	9.4	0.0	0.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	2.2	0.8	0.0	1.3	1.2	12.3	0.3	0.1	5.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	27.9	22.9	0.0	27.7	12.5	27.3	7.7	17.0	17.7	9.6
LnGrp LOS	C	A	C	C	A	C	B	C	A	B	B	A
Approach Vol, veh/h		299			150			1792			947	
Approach Delay, s/veh		25.4			25.7			25.4			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.4	40.4	9.0	18.8	10.8	35.0	10.8	17.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	36.0	7.0	12.0	9.0	34.0	7.0	12.0					
Max Q Clear Time (g_c+1), s	32.9	4.1	7.9	5.7	16.4	7.2	5.2					
Green Ext Time (p_c), s	0.0	2.5	0.0	0.2	0.1	5.5	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C



HCM 6th Signalized Intersection Summary  
156: Hazel Dell Rd & 169th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	140	29	106	57	65	16	157	1450	41	10	807	54
Future Volume (veh/h)	140	29	106	57	65	16	157	1450	41	10	807	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	152	32	115	62	71	17	171	1576	45	11	877	59
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	417	66	238	350	235	56	386	1695	864	151	1438	787
Arrive On Green	0.09	0.19	0.19	0.07	0.16	0.16	0.09	0.48	0.48	0.02	0.41	0.41
Sat Flow, veh/h	1767	354	1272	1767	1447	346	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	152	0	147	62	0	88	171	1576	45	11	877	59
Grp Sat Flow(s),veh/h/ln	1767	0	1627	1767	0	1793	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	5.2	0.0	5.9	2.1	0.0	3.2	3.7	30.9	1.0	0.3	14.4	1.4
Cycle Q Clear(g_c), s	5.2	0.0	5.9	2.1	0.0	3.2	3.7	30.9	1.0	0.3	14.4	1.4
Prop In Lane	1.00		0.78	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	417	0	304	350	0	292	386	1695	864	151	1438	787
V/C Ratio(X)	0.36	0.00	0.48	0.18	0.00	0.30	0.44	0.93	0.05	0.07	0.61	0.07
Avail Cap(c_a), veh/h	421	0	304	397	0	292	439	1724	876	285	1628	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	26.7	22.7	0.0	27.1	11.7	17.9	7.7	16.8	17.2	9.5
Incr Delay (d2), s/veh	0.5	0.0	1.2	0.2	0.0	0.6	0.8	9.4	0.0	0.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	2.2	0.8	0.0	1.3	1.2	12.3	0.3	0.1	5.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	27.9	22.9	0.0	27.7	12.5	27.3	7.7	17.0	17.7	9.6
LnGrp LOS	C	A	C	C	A	C	B	C	A	B	B	A
Approach Vol, veh/h		299			150			1792			947	
Approach Delay, s/veh		25.4			25.7			25.4			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.4	40.4	9.0	18.8	10.8	35.0	10.8	17.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	36.0	7.0	12.0	9.0	34.0	7.0	12.0					
Max Q Clear Time (g_c+1), s	32.9	4.1	7.9	5.7	16.4	7.2	5.2					
Green Ext Time (p_c), s	0.0	2.5	0.0	0.2	0.1	5.5	0.0	0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				23.0								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	2	0	34	36	82
Future Vol, veh/h	72	2	0	34	36	82
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	78	2	0	37	39	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	121	84	128	0	-	0
Stage 1	84	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	872	972	1452	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	872	972	1452	-	-	-
Mov Cap-2 Maneuver	872	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	983	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1452	-	874	-	-
HCM Lane V/C Ratio	-	-	0.092	-	-
HCM Control Delay (s)	0	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	2	0	34	36	82
Future Vol, veh/h	72	2	0	34	36	82
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	78	2	0	37	39	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	121	84	128	0	-	0
Stage 1	84	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	872	972	1452	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	872	972	1452	-	-	-
Mov Cap-2 Maneuver	872	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	983	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1452	-	874	-	-
HCM Lane V/C Ratio	-	-	0.092	-	-
HCM Control Delay (s)	0	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	73	2	0	145	67	82
Future Vol, veh/h	73	2	0	145	67	82
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	79	2	0	158	73	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	276	118	162	0	-	0
Stage 1	118	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	712	931	1411	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	712	931	1411	-	-	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	868	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1411	-	716	-	-
HCM Lane V/C Ratio	-	-	0.114	-	-
HCM Control Delay (s)	0	-	10.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	73	2	0	145	67	82
Future Vol, veh/h	73	2	0	145	67	82
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	79	2	0	158	73	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	276	118	162	0	-	0
Stage 1	118	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	712	931	1411	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	712	931	1411	-	-	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	868	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1411	-	716	-	-
HCM Lane V/C Ratio	-	-	0.114	-	-
HCM Control Delay (s)	0	-	10.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection					
Intersection Delay, s/veh	18.8				
Intersection LOS	C				
Approach	EB	NB		SB	NW
Entry Lanes	1	2		1	1
Conflicting Circle Lanes	1	1		1	1
Adj Approach Flow, veh/h	655	667		393	643
Demand Flow Rate, veh/h	674	687		405	662
Vehicles Circulating, veh/h	449	868		417	480
Vehicles Exiting, veh/h	373	255		725	1075
Ped Vol Crossing Leg, #/h	0	0		0	0
Ped Cap Adj	1.000	1.000		1.000	1.000
Approach Delay, s/veh	20.9	19.1		9.7	22.1
Approach LOS	C	C		A	C
Lane	Left	Left	Right	Left	Left
Designated Moves	R	LT	R	LTR	LR
Assumed Moves	R	LT	R	LTR	LR
RT Channelized					
Lane Util	1.000	0.681	0.319	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	674	468	219	405	662
Cap Entry Lane, veh/h	873	645	645	902	846
Entry HV Adj Factor	0.972	0.970	0.973	0.970	0.971
Flow Entry, veh/h	655	454	213	393	643
Cap Entry, veh/h	848	625	627	875	821
V/C Ratio	0.772	0.726	0.340	0.449	0.783
Control Delay, s/veh	20.9	23.1	10.4	9.7	22.1
LOS	C	C	B	A	C
95th %tile Queue, veh	8	6	2	2	8

Intersection					
Intersection Delay, s/veh	18.8				
Intersection LOS	C				
Approach	EB	NB		SB	NW
Entry Lanes	1	2		1	1
Conflicting Circle Lanes	1	1		1	1
Adj Approach Flow, veh/h	655	667		393	643
Demand Flow Rate, veh/h	674	687		405	662
Vehicles Circulating, veh/h	449	868		417	480
Vehicles Exiting, veh/h	373	255		725	1075
Ped Vol Crossing Leg, #/h	0	0		0	0
Ped Cap Adj	1.000	1.000		1.000	1.000
Approach Delay, s/veh	20.9	19.1		9.7	22.1
Approach LOS	C	C		A	C
Lane	Left	Left	Right	Left	Left
Designated Moves	R	LT	R	LTR	LR
Assumed Moves	R	LT	R	LTR	LR
RT Channelized					
Lane Util	1.000	0.681	0.319	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	674	468	219	405	662
Cap Entry Lane, veh/h	873	645	645	902	846
Entry HV Adj Factor	0.972	0.970	0.973	0.970	0.971
Flow Entry, veh/h	655	454	213	393	643
Cap Entry, veh/h	848	625	627	875	821
V/C Ratio	0.772	0.726	0.340	0.449	0.783
Control Delay, s/veh	20.9	23.1	10.4	9.7	22.1
LOS	C	C	B	A	C
95th %tile Queue, veh	8	6	2	2	8

Intersection					
Intersection Delay, s/veh	587.2				
Intersection LOS	F				
Approach	EB	NB		SB	NW
Entry Lanes	1	2		1	1
Conflicting Circle Lanes	1	1		1	1
Adj Approach Flow, veh/h	1195	673		838	2066
Demand Flow Rate, veh/h	1230	693		863	2127
Vehicles Circulating, veh/h	907	1882		1178	486
Vehicles Exiting, veh/h	1134	255		1435	2089
Ped Vol Crossing Leg, #/h	0	0		0	0
Ped Cap Adj	1.000	1.000		1.000	1.000
Approach Delay, s/veh	585.3	316.4		516.3	705.3
Approach LOS	F	F		F	F
Lane	Left	Left	Right	Left	Left
Designated Moves	R	LT	R	LTR	LR
Assumed Moves	R	LT	R	LTR	LR
RT Channelized					
Lane Util	1.000	0.684	0.316	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	1230	474	219	863	2127
Cap Entry Lane, veh/h	547	256	256	415	841
Entry HV Adj Factor	0.972	0.970	0.973	0.971	0.971
Flow Entry, veh/h	1195	460	213	838	2066
Cap Entry, veh/h	532	249	249	403	816
V/C Ratio	2.248	1.851	0.855	2.079	2.530
Control Delay, s/veh	585.3	431.6	67.5	516.3	705.3
LOS	F	F	F	F	F
95th %tile Queue, veh	88	32	7	60	161



Intersection					
Intersection Delay, s/veh	587.2				
Intersection LOS	F				
Approach	EB	NB		SB	NW
Entry Lanes	1	2		1	1
Conflicting Circle Lanes	1	1		1	1
Adj Approach Flow, veh/h	1195	673		838	2066
Demand Flow Rate, veh/h	1230	693		863	2127
Vehicles Circulating, veh/h	907	1882		1178	486
Vehicles Exiting, veh/h	1134	255		1435	2089
Ped Vol Crossing Leg, #/h	0	0		0	0
Ped Cap Adj	1.000	1.000		1.000	1.000
Approach Delay, s/veh	585.3	316.4		516.3	705.3
Approach LOS	F	F		F	F
Lane	Left	Left	Right	Left	Left
Designated Moves	R	LT	R	LTR	LR
Assumed Moves	R	LT	R	LTR	LR
RT Channelized					
Lane Util	1.000	0.684	0.316	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
Entry Flow, veh/h	1230	474	219	863	2127
Cap Entry Lane, veh/h	547	256	256	415	841
Entry HV Adj Factor	0.972	0.970	0.973	0.971	0.971
Flow Entry, veh/h	1195	460	213	838	2066
Cap Entry, veh/h	532	249	249	403	816
V/C Ratio	2.248	1.851	0.855	2.079	2.530
Control Delay, s/veh	585.3	431.6	67.5	516.3	705.3
LOS	F	F	F	F	F
95th %tile Queue, veh	88	32	7	60	161

Intersection									
Intersection Delay, s/veh 32.8									
Intersection LOS D									
Approach	EB		WB			NB		SB	
Entry Lanes	2		2			2		2	
Conflicting Circle Lanes	2		2			2		2	
Adj Approach Flow, veh/h	1090		989			343		891	
Demand Flow Rate, veh/h	1122		1019			353		918	
Vehicles Circulating, veh/h	954		282			1858		381	
Vehicles Exiting, veh/h	345		1844			218		272	
Ped Vol Crossing Leg, #/h	0		0			0		0	
Ped Cap Adj	1.000		1.000			1.000		1.000	
Approach Delay, s/veh	50.6		9.6			104.0		9.5	
Approach LOS	F		A			F		A	
Lane	Left	Right	Left	Right	Bypass	Left	Bypass	Left	Right
Designated Moves	LT	TR	LT	TR	R	LT	R	L	LTR
Assumed Moves	LT	TR	LT	TR		LT		L	LTR
RT Channelized					Yield		Yield		
Lane Util	0.470	0.530	0.469	0.531		1.000		0.531	0.469
Follow-Up Headway, s	2.667	2.535	2.667	2.535		2.667		2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328		4.645		4.645	4.328
Entry Flow, veh/h	527	595	174	197	648	268	85	487	431
Cap Entry Lane, veh/h	561	631	1041	1117	1046	244	296	951	1027
Entry HV Adj Factor	0.972	0.971	0.972	0.968	0.971	0.972	0.971	0.969	0.971
Flow Entry, veh/h	512	578	169	191	629	260	83	472	419
Cap Entry, veh/h	546	613	1012	1082	1015	238	288	921	998
V/C Ratio	0.939	0.943	0.167	0.176	0.620	1.097	0.289	0.512	0.420
Control Delay, s/veh	52.1	49.3	5.1	4.9	12.2	131.1	19.0	10.5	8.3
LOS	F	E	A	A	B	F	C	B	A
95th %tile Queue, veh	12	13	1	1	4	11	1	3	2

Intersection									
Intersection Delay, s/veh96.1									
Intersection LOS F									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1195		2066		673		838		
Demand Flow Rate, veh/h	1230		2127		693		863		
Vehicles Circulating, veh/h	907		486		1882		1178		
Vehicles Exiting, veh/h	1134		1870		255		459		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	60.2		50.7		351.5		53.9		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Bypass	Left	Bypass	Left	Right
Designated Moves	LT	TR	LT	TR	R	LT	R	L	LTR
Assumed Moves	LT	TR	LT	TR		LT		L	LTR
RT Channelized					Yield		Yield		
Lane Util	0.470	0.530	0.470	0.530		1.000		0.530	0.470
Follow-Up Headway, s	2.667	2.535	2.667	2.535		2.667		2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328		4.645		4.645	4.328
Entry Flow, veh/h	578	652	541	610	976	474	219	457	406
Cap Entry Lane, veh/h	586	657	863	939	864	239	290	457	522
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.971	0.970	0.971	0.972	0.970
Flow Entry, veh/h	561	633	525	592	948	460	213	444	394
Cap Entry, veh/h	569	638	838	912	839	232	281	444	506
V/C Ratio	0.986	0.993	0.627	0.649	1.130	1.983	0.757	1.001	0.778
Control Delay, s/veh	61.2	59.2	14.4	14.2	93.7	492.3	47.6	73.7	31.7
LOS	F	F	B	B	F	F	E	F	D
95th %tile Queue, veh	14	15	5	5	27	34	6	13	7

Intersection					
Intersection Delay, s/veh	5.7				
Intersection LOS	A				
Approach	EB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	328	655		458	
Demand Flow Rate, veh/h	338	675		471	
Vehicles Circulating, veh/h	425	110		173	
Vehicles Exiting, veh/h	219	653		612	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	7.4	5.4		4.9	
Approach LOS	A	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.469	0.531
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	338	317	358	221	250
Cap Entry Lane, veh/h	989	1220	1293	1151	1226
Entry HV Adj Factor	0.970	0.972	0.970	0.973	0.970
Flow Entry, veh/h	328	308	347	215	243
Cap Entry, veh/h	960	1185	1255	1120	1189
V/C Ratio	0.342	0.260	0.277	0.192	0.204
Control Delay, s/veh	7.4	5.4	5.3	4.9	4.8
LOS	A	A	A	A	A
95th %tile Queue, veh	2	1	1	1	1

Intersection					
Intersection Delay, s/veh	5.7				
Intersection LOS	A				
Approach	EB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	328	655		458	
Demand Flow Rate, veh/h	338	675		471	
Vehicles Circulating, veh/h	425	110		173	
Vehicles Exiting, veh/h	219	653		612	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	7.4	5.4		4.9	
Approach LOS	A	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.469	0.531
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	338	317	358	221	250
Cap Entry Lane, veh/h	989	1220	1293	1151	1226
Entry HV Adj Factor	0.970	0.972	0.970	0.973	0.970
Flow Entry, veh/h	328	308	347	215	243
Cap Entry, veh/h	960	1185	1255	1120	1189
V/C Ratio	0.342	0.260	0.277	0.192	0.204
Control Delay, s/veh	7.4	5.4	5.3	4.9	4.8
LOS	A	A	A	A	A
95th %tile Queue, veh	2	1	1	1	1

Intersection					
Intersection Delay, s/veh	8.3				
Intersection LOS	A				
Approach	EB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	380	1204		687	
Demand Flow Rate, veh/h	391	1241		708	
Vehicles Circulating, veh/h	652	116		261	
Vehicles Exiting, veh/h	317	927		1096	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	11.0	8.3		6.6	
Approach LOS	B	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	391	583	658	333	375
Cap Entry Lane, veh/h	816	1213	1287	1062	1138
Entry HV Adj Factor	0.972	0.971	0.970	0.970	0.971
Flow Entry, veh/h	380	566	638	323	364
Cap Entry, veh/h	793	1178	1248	1030	1105
V/C Ratio	0.479	0.481	0.511	0.314	0.330
Control Delay, s/veh	11.0	8.3	8.4	6.7	6.5
LOS	B	A	A	A	A
95th %tile Queue, veh	3	3	3	1	1

Intersection					
Intersection Delay, s/veh	8.3				
Intersection LOS	A				
Approach	EB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	380	1204		687	
Demand Flow Rate, veh/h	391	1241		708	
Vehicles Circulating, veh/h	652	116		261	
Vehicles Exiting, veh/h	317	927		1096	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	11.0	8.3		6.6	
Approach LOS	B	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	391	583	658	333	375
Cap Entry Lane, veh/h	816	1213	1287	1062	1138
Entry HV Adj Factor	0.972	0.971	0.970	0.970	0.971
Flow Entry, veh/h	380	566	638	323	364
Cap Entry, veh/h	793	1178	1248	1030	1105
V/C Ratio	0.479	0.481	0.511	0.314	0.330
Control Delay, s/veh	11.0	8.3	8.4	6.7	6.5
LOS	B	A	A	A	A
95th %tile Queue, veh	3	3	3	1	1

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	176	579	126	79	450	1	83	111	24	0	70	69
Future Vol, veh/h	176	579	126	79	450	1	83	111	24	0	70	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	191	629	137	86	489	1	90	121	26	0	76	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	766	0	0	1817	1742	698	1815	1810	490
Stage 1	-	-	-	-	-	-	1080	1080	-	662	662	-
Stage 2	-	-	-	-	-	-	737	662	-	1153	1148	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1068	-	-	843	-	-	~ 60	~ 86	439	60	78	576
Stage 1	-	-	-	-	-	-	263	293	-	449	458	-
Stage 2	-	-	-	-	-	-	409	458	-	239	272	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1068	-	-	843	-	-	~ 50	439	-	~ 46	576	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 50	-	-	~ 46	-	-
Stage 1	-	-	-	-	-	-	179	199	-	305	394	-
Stage 2	-	-	-	-	-	-	247	394	-	60	185	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.8	1.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1068	-	-	843	-	-	-
HCM Lane V/C Ratio	-	0.179	-	-	0.102	-	-	-
HCM Control Delay (s)	-	9.1	0	-	9.8	0	-	-
HCM Lane LOS	-	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-	0.3	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	176	579	126	79	450	1	83	111	24	0	70	69
Future Vol, veh/h	176	579	126	79	450	1	83	111	24	0	70	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	191	629	137	86	489	1	90	121	26	0	76	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	766	0	0	1817	1742	698	1815	1810	490
Stage 1	-	-	-	-	-	-	1080	1080	-	662	662	-
Stage 2	-	-	-	-	-	-	737	662	-	1153	1148	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1068	-	-	843	-	-	~ 60	~ 86	439	60	78	576
Stage 1	-	-	-	-	-	-	263	293	-	449	458	-
Stage 2	-	-	-	-	-	-	409	458	-	239	272	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1068	-	-	843	-	-	~ 50	439	-	~ 46	576	
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 50	-	-	~ 46	-	
Stage 1	-	-	-	-	-	-	179	199	-	305	394	-
Stage 2	-	-	-	-	-	-	247	394	-	60	185	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.8			1.5								
HCM LOS							-			-		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1068	-	-	843	-	-	-
HCM Lane V/C Ratio	-	0.179	-	-	0.102	-	-	-
HCM Control Delay (s)	-	9.1	0	-	9.8	0	-	-
HCM Lane LOS	-	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-	0.3	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	189	1265	531	88	1432	26	388	144	24	8	79	79
Future Vol, veh/h	189	1265	531	88	1432	26	388	144	24	8	79	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	205	1375	577	96	1557	28	422	157	26	9	86	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1585	0	0	1952	0	0	3923	3851	1664	3928	4125	1571
Stage 1	-	-	-	-	-	-	2074	2074	-	1763	1763	-
Stage 2	-	-	-	-	-	-	1849	1777	-	2165	2362	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	412	-	-	297	-	-	~ 2	~ 4	119	~ 2	~ 2	135
Stage 1	-	-	-	-	-	-	~ 70	~ 95	-	107	137	-
Stage 2	-	-	-	-	-	-	~ 95	~ 134	-	62	~ 68	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	412	-	-	297	-	-	0	119	-	0	135	
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	-	-	0	-	
Stage 1	-	-	-	-	-	-	~ 70	~ 95	-	107	0	-
Stage 2	-	-	-	-	-	-	0	-	-	~ 68	-	

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	1.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	412	-	-	297	-	-	-
HCM Lane V/C Ratio	-	0.499	-	-	0.322	-	-	-
HCM Control Delay (s)	-	22.1	0	-	22.8	0	-	-
HCM Lane LOS	-	C	A	-	C	A	-	-
HCM 95th %tile Q(veh)	-	2.7	-	-	1.4	-	-	-

Notes			
-:	Volume exceeds capacity	Ⓢ:	Delay exceeds 300s
+	Computation Not Defined	*	All major volume in platoon

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	189	1265	531	88	1432	26	388	144	24	8	79	79
Future Vol, veh/h	189	1265	531	88	1432	26	388	144	24	8	79	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	205	1375	577	96	1557	28	422	157	26	9	86	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1585	0	0	1952	0	0	3923	3851	1664	3928	4125	1571
Stage 1	-	-	-	-	-	-	2074	2074	-	1763	1763	-
Stage 2	-	-	-	-	-	-	1849	1777	-	2165	2362	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	412	-	-	297	-	-	~ 2	~ 4	119	~ 2	~ 2	135
Stage 1	-	-	-	-	-	-	~ 70	~ 95	-	107	137	-
Stage 2	-	-	-	-	-	-	~ 95	~ 134	-	62	~ 68	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	412	-	-	297	-	-	0	119	-	0	135	
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	-	-	0	-	
Stage 1	-	-	-	-	-	-	~ 70	~ 95	-	107	0	-
Stage 2	-	-	-	-	-	-	0	-	-	~ 68	-	

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.1			1.3								
HCM LOS							-			-		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	412	-	-	297	-	-	-
HCM Lane V/C Ratio	-	0.499	-	-	0.322	-	-	-
HCM Control Delay (s)	-	22.1	0	-	22.8	0	-	-
HCM Lane LOS	-	C	A	-	C	A	-	-
HCM 95th %tile Q(veh)	-	2.7	-	-	1.4	-	-	-

Notes			
-: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	572	494	5	8	7
Future Vol, veh/h	3	572	494	5	8	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	622	537	5	9	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	542	0	-	0	1168 540
Stage 1	-	-	-	-	540 -
Stage 2	-	-	-	-	628 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1022	-	-	-	213 540
Stage 1	-	-	-	-	582 -
Stage 2	-	-	-	-	530 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1022	-	-	-	212 540
Mov Cap-2 Maneuver	-	-	-	-	212 -
Stage 1	-	-	-	-	580 -
Stage 2	-	-	-	-	530 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1022	-	-	-	296
HCM Lane V/C Ratio	0.003	-	-	-	0.055
HCM Control Delay (s)	8.5	0	-	-	17.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	572	494	5	8	7
Future Vol, veh/h	3	572	494	5	8	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	622	537	5	9	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	542	0	-	0	1168 540
Stage 1	-	-	-	-	540 -
Stage 2	-	-	-	-	628 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1022	-	-	-	213 540
Stage 1	-	-	-	-	582 -
Stage 2	-	-	-	-	530 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1022	-	-	-	212 540
Mov Cap-2 Maneuver	-	-	-	-	212 -
Stage 1	-	-	-	-	580 -
Stage 2	-	-	-	-	530 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1022	-	-	-	296
HCM Lane V/C Ratio	0.003	-	-	-	0.055
HCM Control Delay (s)	8.5	0	-	-	17.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	1564	1496	5	9	9
Future Vol, veh/h	5	1564	1496	5	9	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	1700	1626	5	10	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1631	0	-	0	3339 1629
Stage 1	-	-	-	-	1629 -
Stage 2	-	-	-	-	1710 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	395	-	-	-	~ 9 125
Stage 1	-	-	-	-	175 -
Stage 2	-	-	-	-	160 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	395	-	-	-	~ 7 125
Mov Cap-2 Maneuver	-	-	-	-	~ 7 -
Stage 1	-	-	-	-	135 -
Stage 2	-	-	-	-	160 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	\$ 843.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	395	-	-	-	13
HCM Lane V/C Ratio	0.014	-	-	-	1.505
HCM Control Delay (s)	14.2	0	-	-	\$ 843.3
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	3.1

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	1564	1496	5	9	9
Future Vol, veh/h	5	1564	1496	5	9	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	1700	1626	5	10	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1631	0	-	0	3339 1629
Stage 1	-	-	-	-	1629 -
Stage 2	-	-	-	-	1710 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	395	-	-	-	~ 9 125
Stage 1	-	-	-	-	175 -
Stage 2	-	-	-	-	160 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	395	-	-	-	~ 7 125
Mov Cap-2 Maneuver	-	-	-	-	~ 7 -
Stage 1	-	-	-	-	135 -
Stage 2	-	-	-	-	160 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	\$ 843.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	395	-	-	-	13
HCM Lane V/C Ratio	0.014	-	-	-	1.505
HCM Control Delay (s)	14.2	0	-	-	\$ 843.3
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	3.1

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	9.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	443	148	35	362	152	62
Future Vol, veh/h	443	148	35	362	152	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	482	161	38	393	165	67

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	643	0	1032
Stage 1	-	-	-	-	563
Stage 2	-	-	-	-	469
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	937	-	257
Stage 1	-	-	-	-	568
Stage 2	-	-	-	-	628
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	937	-	244
Mov Cap-2 Maneuver	-	-	-	-	244
Stage 1	-	-	-	-	568
Stage 2	-	-	-	-	595

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	53.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	289	-	-	937	-
HCM Lane V/C Ratio	0.805	-	-	0.041	-
HCM Control Delay (s)	53.8	-	-	9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	6.5	-	-	0.1	-



Intersection						
Int Delay, s/veh	9.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	443	148	35	362	152	62
Future Vol, veh/h	443	148	35	362	152	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	482	161	38	393	165	67

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	643	0	1032
Stage 1	-	-	-	-	563
Stage 2	-	-	-	-	469
Critical Hdwy	-	-	4.13	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.227	-	3.527
Pot Cap-1 Maneuver	-	-	937	-	257
Stage 1	-	-	-	-	568
Stage 2	-	-	-	-	628
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	937	-	244
Mov Cap-2 Maneuver	-	-	-	-	244
Stage 1	-	-	-	-	568
Stage 2	-	-	-	-	595

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	53.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	289	-	-	937	-
HCM Lane V/C Ratio	0.805	-	-	0.041	-
HCM Control Delay (s)	53.8	-	-	9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	6.5	-	-	0.1	-

Intersection						
Int Delay, s/veh	2235					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	915	669	45	1035	481	62
Future Vol, veh/h	915	669	45	1035	481	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	995	727	49	1125	523	67

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1722	0	2582 1359
Stage 1	-	-	-	-	1359 -
Stage 2	-	-	-	-	1223 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	364	-	~ 28 181
Stage 1	-	-	-	-	~ 238 -
Stage 2	-	-	-	-	~ 277 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	364	-	~ 18 181
Mov Cap-2 Maneuver	-	-	-	-	~ 18 -
Stage 1	-	-	-	-	~ 238 -
Stage 2	-	-	-	-	~ 178 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	\$ 13198.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	20	-	-	364	-
HCM Lane V/C Ratio	29.511	-	-	0.134	-
HCM Control Delay (s)	\$ 13198.6	-	-	16.4	0
HCM Lane LOS	F	-	-	C	A
HCM 95th %tile Q(veh)	74.3	-	-	0.5	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	2235					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	915	669	45	1035	481	62
Future Vol, veh/h	915	669	45	1035	481	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	995	727	49	1125	523	67

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1722	0	2582 1359
Stage 1	-	-	-	-	1359 -
Stage 2	-	-	-	-	1223 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	364	-	~ 28 181
Stage 1	-	-	-	-	~ 238 -
Stage 2	-	-	-	-	~ 277 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	364	-	~ 18 181
Mov Cap-2 Maneuver	-	-	-	-	~ 18 -
Stage 1	-	-	-	-	~ 238 -
Stage 2	-	-	-	-	~ 178 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	\$ 13198.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	20	-	-	364	-
HCM Lane V/C Ratio	29.511	-	-	0.134	-
HCM Control Delay (s)	\$ 13198.6	-	-	16.4	0
HCM Lane LOS	F	-	-	C	A
HCM 95th %tile Q(veh)	74.3	-	-	0.5	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection					
Intersection Delay, s/veh	11.8				
Intersection LOS	B				
Approach	EB		WB		NB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	1626		858		394
Demand Flow Rate, veh/h	1675		883		406
Vehicles Circulating, veh/h	47		362		1057
Vehicles Exiting, veh/h	1198		1101		665
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	10.6		8.7		23.6
Approach LOS	B		A		C
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	787	888	415	468	406
Cap Entry Lane, veh/h	1293	1364	968	1044	578
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.970
Flow Entry, veh/h	764	862	403	455	394
Cap Entry, veh/h	1255	1324	940	1014	561
V/C Ratio	0.609	0.651	0.429	0.448	0.702
Control Delay, s/veh	10.3	10.9	8.8	8.6	23.6
LOS	B	B	A	A	C
95th %tile Queue, veh	4	5	2	2	6

Intersection					
Intersection Delay, s/veh	23.5				
Intersection LOS	C				
Approach	EB		WB		NB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	1722		1174		590
Demand Flow Rate, veh/h	1774		1209		608
Vehicles Circulating, veh/h	50		539		1025
Vehicles Exiting, veh/h	1698		1094		799
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	11.6		17.3		70.4
Approach LOS	B		C		F
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	834	940	568	641	608
Cap Entry Lane, veh/h	1289	1361	822	898	594
Entry HV Adj Factor	0.971	0.971	0.972	0.971	0.970
Flow Entry, veh/h	809	913	552	622	590
Cap Entry, veh/h	1251	1322	799	872	577
V/C Ratio	0.647	0.691	0.691	0.714	1.023
Control Delay, s/veh	11.2	12.0	17.4	17.3	70.4
LOS	B	B	C	C	F
95th %tile Queue, veh	5	6	6	6	16

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	32	471	0	0	380	0	0	24	15	0	5	16
Future Vol, veh/h	32	471	0	0	380	0	0	24	15	0	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	35	512	0	0	413	0	0	26	16	0	5	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	413	0	0	512	0	0	1006	995	512	1016	995	413
Stage 1	-	-	-	-	-	-	582	582	-	413	413	-
Stage 2	-	-	-	-	-	-	424	413	-	603	582	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1141	-	-	1048	-	-	219	244	560	215	244	637
Stage 1	-	-	-	-	-	-	497	497	-	614	592	-
Stage 2	-	-	-	-	-	-	606	592	-	484	497	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1141	-	-	1048	-	-	202	234	560	185	234	637
Mov Cap-2 Maneuver	-	-	-	-	-	-	202	234	-	185	234	-
Stage 1	-	-	-	-	-	-	476	476	-	588	592	-
Stage 2	-	-	-	-	-	-	584	592	-	425	476	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	18.9	13.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	302	1141	-	-	1048	-	-	452
HCM Lane V/C Ratio	0.14	0.03	-	-	-	-	-	0.051
HCM Control Delay (s)	18.9	8.3	0	-	0	-	-	13.4
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	32	471	0	0	380	0	0	24	15	0	5	16
Future Vol, veh/h	32	471	0	0	380	0	0	24	15	0	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	35	512	0	0	413	0	0	26	16	0	5	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	413	0	0	512	0	0	1006	995	512	1016	995	413
Stage 1	-	-	-	-	-	-	582	582	-	413	413	-
Stage 2	-	-	-	-	-	-	424	413	-	603	582	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1141	-	-	1048	-	-	219	244	560	215	244	637
Stage 1	-	-	-	-	-	-	497	497	-	614	592	-
Stage 2	-	-	-	-	-	-	606	592	-	484	497	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1141	-	-	1048	-	-	202	234	560	185	234	637
Mov Cap-2 Maneuver	-	-	-	-	-	-	202	234	-	185	234	-
Stage 1	-	-	-	-	-	-	476	476	-	588	592	-
Stage 2	-	-	-	-	-	-	584	592	-	425	476	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	18.9	13.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	302	1141	-	-	1048	-	-	452
HCM Lane V/C Ratio	0.14	0.03	-	-	-	-	-	0.051
HCM Control Delay (s)	18.9	8.3	0	-	0	-	-	13.4
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	11.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	939	0	0	1059	2	0	32	58	0	5	20
Future Vol, veh/h	36	939	0	0	1059	2	0	32	58	0	5	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	39	1021	0	0	1151	2	0	35	63	0	5	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1153	0	0	1021	0	0	2265	2252	1021	2300	2251	1152
Stage 1	-	-	-	-	-	-	1099	1099	-	1152	1152	-
Stage 2	-	-	-	-	-	-	1166	1153	-	1148	1099	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	602	-	-	676	-	-	29	41	286	27	41	239
Stage 1	-	-	-	-	-	-	257	287	-	239	271	-
Stage 2	-	-	-	-	-	-	235	271	-	241	287	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	602	-	-	676	-	-	21	35	286	1	35	239
Mov Cap-2 Maneuver	-	-	-	-	-	-	21	35	-	1	35	-
Stage 1	-	-	-	-	-	-	218	244	-	203	271	-
Stage 2	-	-	-	-	-	-	209	271	-	137	244	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	258.5	48.1
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	81	602	-	-	676	-	-	110
HCM Lane V/C Ratio	1.208	0.065	-	-	-	-	-	0.247
HCM Control Delay (s)	258.5	11.4	0	-	0	-	-	48.1
HCM Lane LOS	F	B	A	-	A	-	-	E
HCM 95th %tile Q(veh)	7.2	0.2	-	-	0	-	-	0.9



Intersection												
Int Delay, s/veh	11.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	939	0	0	1059	2	0	32	58	0	5	20
Future Vol, veh/h	36	939	0	0	1059	2	0	32	58	0	5	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	39	1021	0	0	1151	2	0	35	63	0	5	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1153	0	0	1021	0	0	2265	2252	1021	2300	2251	1152
Stage 1	-	-	-	-	-	-	1099	1099	-	1152	1152	-
Stage 2	-	-	-	-	-	-	1166	1153	-	1148	1099	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	602	-	-	676	-	-	29	41	286	27	41	239
Stage 1	-	-	-	-	-	-	257	287	-	239	271	-
Stage 2	-	-	-	-	-	-	235	271	-	241	287	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	602	-	-	676	-	-	21	35	286	1	35	239
Mov Cap-2 Maneuver	-	-	-	-	-	-	21	35	-	1	35	-
Stage 1	-	-	-	-	-	-	218	244	-	203	271	-
Stage 2	-	-	-	-	-	-	209	271	-	137	244	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0			258.5			48.1		
HCM LOS							F			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	81	602	-	-	676	-	-	110
HCM Lane V/C Ratio	1.208	0.065	-	-	-	-	-	0.247
HCM Control Delay (s)	258.5	11.4	0	-	0	-	-	48.1
HCM Lane LOS	F	B	A	-	A	-	-	E
HCM 95th %tile Q(veh)	7.2	0.2	-	-	0	-	-	0.9

Intersection				
Intersection Delay, s/veh 13.8				
Intersection LOS B				
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1063	818	22	41
Demand Flow Rate, veh/h	1094	842	23	42
Vehicles Circulating, veh/h	14	21	1097	841
Vehicles Exiting, veh/h	869	1099	11	22
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	16.8	10.3	9.1	7.2
Approach LOS	C	B	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	1094	842	23	42
Cap Entry Lane, veh/h	1360	1351	451	585
Entry HV Adj Factor	0.971	0.971	0.950	0.969
Flow Entry, veh/h	1063	818	22	41
Cap Entry, veh/h	1321	1311	428	567
V/C Ratio	0.804	0.623	0.051	0.072
Control Delay, s/veh	16.8	10.3	9.1	7.2
LOS	C	B	A	A
95th %tile Queue, veh	10	5	0	0

Intersection				
Intersection Delay, s/veh	22.8			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1060	1153	98	27
Demand Flow Rate, veh/h	1092	1188	101	28
Vehicles Circulating, veh/h	5	76	1092	1186
Vehicles Exiting, veh/h	1209	1117	5	78
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	16.2	30.1	11.6	10.1
Approach LOS	C	D	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	1092	1188	101	28
Cap Entry Lane, veh/h	1373	1277	453	412
Entry HV Adj Factor	0.971	0.971	0.970	0.959
Flow Entry, veh/h	1060	1153	98	27
Cap Entry, veh/h	1333	1240	439	395
V/C Ratio	0.795	0.930	0.223	0.068
Control Delay, s/veh	16.2	30.1	11.6	10.1
LOS	C	D	B	B
95th %tile Queue, veh	9	16	1	0

Intersection												
Int Delay, s/veh	9.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	474	1	1	374	12	0	156	5	12	65	8
Future Vol, veh/h	14	474	1	1	374	12	0	156	5	12	65	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	515	1	1	407	13	0	170	5	13	71	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	420	0	0	516	0	0	1002	968	516	1049	962	414
Stage 1	-	-	-	-	-	-	546	546	-	416	416	-
Stage 2	-	-	-	-	-	-	456	422	-	633	546	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1134	-	-	1045	-	-	220	253	557	205	255	636
Stage 1	-	-	-	-	-	-	520	516	-	612	590	-
Stage 2	-	-	-	-	-	-	582	587	-	466	516	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1134	-	-	1045	-	-	167	248	557	90	250	636
Mov Cap-2 Maneuver	-	-	-	-	-	-	167	248	-	90	250	-
Stage 1	-	-	-	-	-	-	510	506	-	600	589	-
Stage 2	-	-	-	-	-	-	505	586	-	301	506	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			46.4			35.2		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	252	1134	-	-	1045	-	-	209
HCM Lane V/C Ratio	0.694	0.013	-	-	0.001	-	-	0.442
HCM Control Delay (s)	46.4	8.2	0	-	8.4	0	-	35.2
HCM Lane LOS	E	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	4.6	0	-	-	0	-	-	2.1

Intersection												
Int Delay, s/veh	9.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	474	1	1	374	12	0	156	5	12	65	8
Future Vol, veh/h	14	474	1	1	374	12	0	156	5	12	65	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	515	1	1	407	13	0	170	5	13	71	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	420	0	0	516	0	0	1002	968	516	1049	962	414
Stage 1	-	-	-	-	-	-	546	546	-	416	416	-
Stage 2	-	-	-	-	-	-	456	422	-	633	546	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1134	-	-	1045	-	-	220	253	557	205	255	636
Stage 1	-	-	-	-	-	-	520	516	-	612	590	-
Stage 2	-	-	-	-	-	-	582	587	-	466	516	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1134	-	-	1045	-	-	167	248	557	90	250	636
Mov Cap-2 Maneuver	-	-	-	-	-	-	167	248	-	90	250	-
Stage 1	-	-	-	-	-	-	510	506	-	600	589	-
Stage 2	-	-	-	-	-	-	505	586	-	301	506	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			46.4			35.2		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	252	1134	-	-	1045	-	-	209
HCM Lane V/C Ratio	0.694	0.013	-	-	0.001	-	-	0.442
HCM Control Delay (s)	46.4	8.2	0	-	8.4	0	-	35.2
HCM Lane LOS	E	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	4.6	0	-	-	0	-	-	2.1

Intersection												
Int Delay, s/veh	2565.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	590	370	1	474	12	492	186	35	12	69	20
Future Vol, veh/h	29	590	370	1	474	12	492	186	35	12	69	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	641	402	1	515	13	535	202	38	13	75	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	528	0	0	1043	0	0	1478	1436	842	1550	1631	522
Stage 1	-	-	-	-	-	-	906	906	-	524	524	-
Stage 2	-	-	-	-	-	-	572	530	-	1026	1107	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1034	-	-	663	-	-	~ 103	~ 133	363	92	101	553
Stage 1	-	-	-	-	-	-	~ 329	354	-	535	528	-
Stage 2	-	-	-	-	-	-	~ 503	525	-	282	285	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1034	-	-	663	-	-	~ 31	~ 122	363	-	93	553
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 31	~ 122	-	-	93	-
Stage 1	-	-	-	-	-	-	~ 302	325	-	491	527	-
Stage 2	-	-	-	-	-	-	~ 414	524	-	88	262	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	\$ 8240.6	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	41	1034	-	-	663	-	-	-
HCM Lane V/C Ratio	18.902	0.03	-	-	0.002	-	-	-
HCM Control Delay (s)	\$ 8240.6	8.6	0	-	10.4	0	-	-
HCM Lane LOS	F	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	94.8	0.1	-	-	0	-	-	-

Notes			
-:	Volume exceeds capacity	\$:	Delay exceeds 300s
+:	Computation Not Defined	*:	All major volume in platoon

Intersection												
Int Delay, s/veh	2565.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	590	370	1	474	12	492	186	35	12	69	20
Future Vol, veh/h	29	590	370	1	474	12	492	186	35	12	69	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	641	402	1	515	13	535	202	38	13	75	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	528	0	0	1043	0	0	1478	1436	842	1550	1631	522
Stage 1	-	-	-	-	-	-	906	906	-	524	524	-
Stage 2	-	-	-	-	-	-	572	530	-	1026	1107	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1034	-	-	663	-	-	~ 103	~ 133	363	92	101	553
Stage 1	-	-	-	-	-	-	~ 329	354	-	535	528	-
Stage 2	-	-	-	-	-	-	~ 503	525	-	282	285	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1034	-	-	663	-	-	~ 31	~ 122	363	-	93	553
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 31	~ 122	-	-	93	-
Stage 1	-	-	-	-	-	-	~ 302	325	-	491	527	-
Stage 2	-	-	-	-	-	-	~ 414	524	-	88	262	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	\$ 8240.6	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	41	1034	-	-	663	-	-	-
HCM Lane V/C Ratio	18.902	0.03	-	-	0.002	-	-	-
HCM Control Delay (s)	\$ 8240.6	8.6	0	-	10.4	0	-	-
HCM Lane LOS	F	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	94.8	0.1	-	-	0	-	-	-

Notes			
-: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection					
Intersection Delay, s/veh 17.7					
Intersection LOS C					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	2	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	1025	533	292	156	
Demand Flow Rate, veh/h	1056	549	301	160	
Vehicles Circulating, veh/h	152	294	285	760	
Vehicles Exiting, veh/h	768	292	923	83	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	26.5	10.4	5.0	9.0	
Approach LOS	D	B	A	A	
Lane	Left	Left	Left	Right	Left
Designated Moves	LTR	LTR	L	TR	LTR
Assumed Moves	LTR	LTR	L	TR	LTR
RT Channelized					
Lane Util	1.000	1.000	0.764	0.236	1.000
Follow-Up Headway, s	2.609	2.609	2.535	2.535	2.609
Critical Headway, s	4.976	4.976	4.544	4.544	4.976
Entry Flow, veh/h	1056	549	230	71	160
Cap Entry Lane, veh/h	1182	1022	1096	1096	636
Entry HV Adj Factor	0.971	0.970	0.970	0.977	0.976
Flow Entry, veh/h	1025	533	223	69	156
Cap Entry, veh/h	1147	992	1062	1071	620
V/C Ratio	0.894	0.537	0.210	0.065	0.252
Control Delay, s/veh	26.5	10.4	5.3	3.9	9.0
LOS	D	B	A	A	A
95th %tile Queue, veh	13	3	1	0	1



Intersection					
Intersection Delay, s/veh 24.8					
Intersection LOS C					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	2	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	1075	529	775	110	
Demand Flow Rate, veh/h	1107	544	798	113	
Vehicles Circulating, veh/h	91	792	706	1082	
Vehicles Exiting, veh/h	1104	712	492	254	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	23.9	39.8	17.5	12.0	
Approach LOS	C	E	C	B	
Lane	Left	Left	Left	Right	Left
Designated Moves	LTR	LTR	L	TR	LTR
Assumed Moves	LTR	LTR	L	TR	LTR
RT Channelized					
Lane Util	1.000	1.000	0.690	0.310	1.000
Follow-Up Headway, s	2.609	2.609	2.535	2.535	2.609
Critical Headway, s	4.976	4.976	4.544	4.544	4.976
Entry Flow, veh/h	1107	544	551	247	113
Cap Entry Lane, veh/h	1258	615	747	747	458
Entry HV Adj Factor	0.971	0.972	0.971	0.971	0.971
Flow Entry, veh/h	1075	529	535	240	110
Cap Entry, veh/h	1221	598	725	726	445
V/C Ratio	0.880	0.884	0.738	0.331	0.247
Control Delay, s/veh	23.9	39.8	21.3	9.0	12.0
LOS	C	E	C	A	B
95th %tile Queue, veh	13	10	7	1	1

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	36	43	6	2	0	61	215	17	0	181	6
Future Vol, veh/h	6	36	43	6	2	0	61	215	17	0	181	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	39	47	7	2	0	66	234	18	0	197	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	577	585	201	619	579	243	204	0	0	252	0	0
Stage 1	201	201	-	375	375	-	-	-	-	-	-	-
Stage 2	376	384	-	244	204	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	426	422	837	400	425	793	1362	-	-	1307	-	-
Stage 1	799	733	-	644	615	-	-	-	-	-	-	-
Stage 2	643	610	-	757	731	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	406	398	837	334	401	793	1362	-	-	1307	-	-
Mov Cap-2 Maneuver	406	398	-	334	401	-	-	-	-	-	-	-
Stage 1	754	733	-	608	581	-	-	-	-	-	-	-
Stage 2	605	576	-	677	731	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	15.6	1.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1362	-	-	543	349	1307	-
HCM Lane V/C Ratio	0.049	-	-	0.17	0.025	-	-
HCM Control Delay (s)	7.8	0	-	13	15.6	0	-
HCM Lane LOS	A	A	-	B	C	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.1	0	-

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	36	43	6	2	0	61	215	17	0	181	6
Future Vol, veh/h	6	36	43	6	2	0	61	215	17	0	181	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	39	47	7	2	0	66	234	18	0	197	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	577	585	201	619	579	243	204	0	0	252	0	0
Stage 1	201	201	-	375	375	-	-	-	-	-	-	-
Stage 2	376	384	-	244	204	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	426	422	837	400	425	793	1362	-	-	1307	-	-
Stage 1	799	733	-	644	615	-	-	-	-	-	-	-
Stage 2	643	610	-	757	731	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	406	398	837	334	401	793	1362	-	-	1307	-	-
Mov Cap-2 Maneuver	406	398	-	334	401	-	-	-	-	-	-	-
Stage 1	754	733	-	608	581	-	-	-	-	-	-	-
Stage 2	605	576	-	677	731	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	15.6	1.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1362	-	-	543	349	1307	-
HCM Lane V/C Ratio	0.049	-	-	0.17	0.025	-	-
HCM Control Delay (s)	7.8	0	-	13	15.6	0	-
HCM Lane LOS	A	A	-	B	C	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.1	0	-

Intersection

Int Delay, s/veh 263.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	170	43	6	6	0	170	546	28	101	633	6
Future Vol, veh/h	6	170	43	6	6	0	170	546	28	101	633	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	185	47	7	7	0	185	593	30	110	688	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1894	1905	692	2006	1893	608	695	0	0	623	0	0
Stage 1	912	912	-	978	978	-	-	-	-	-	-	-
Stage 2	982	993	-	1028	915	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	53	~ 68	442	44	69	494	896	-	-	953	-	-
Stage 1	327	351	-	300	327	-	-	-	-	-	-	-
Stage 2	299	322	-	281	350	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	30	~ 38	442	-	38	494	896	-	-	953	-	-
Mov Cap-2 Maneuver	30	~ 38	-	-	38	-	-	-	-	-	-	-
Stage 1	223	285	-	205	223	-	-	-	-	-	-	-
Stage 2	198	220	-	72	284	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$ 2054.4			2.3	1.3
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	896	-	-	46	-	953	-
HCM Lane V/C Ratio	0.206	-	-	5.175	-	0.115	-
HCM Control Delay (s)	10.1	0	\$ 2054.4	-	9.3	0	-
HCM Lane LOS	B	A	-	F	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	27.3	-	0.4	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection

Int Delay, s/veh 263.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	170	43	6	6	0	170	546	28	101	633	6
Future Vol, veh/h	6	170	43	6	6	0	170	546	28	101	633	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	185	47	7	7	0	185	593	30	110	688	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1894	1905	692	2006	1893	608	695	0	0	623	0	0
Stage 1	912	912	-	978	978	-	-	-	-	-	-	-
Stage 2	982	993	-	1028	915	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	53	~ 68	442	44	69	494	896	-	-	953	-	-
Stage 1	327	351	-	300	327	-	-	-	-	-	-	-
Stage 2	299	322	-	281	350	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	30	~ 38	442	-	38	494	896	-	-	953	-	-
Mov Cap-2 Maneuver	30	~ 38	-	-	38	-	-	-	-	-	-	-
Stage 1	223	285	-	205	223	-	-	-	-	-	-	-
Stage 2	198	220	-	72	284	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$ 2054.4			2.3	1.3
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	896	-	-	46	-	953	-
HCM Lane V/C Ratio	0.206	-	-	5.175	-	0.115	-
HCM Control Delay (s)	10.1	0	\$ 2054.4	-	9.3	0	-
HCM Lane LOS	B	A	-	F	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	27.3	-	0.4	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection					
Intersection Delay, s/veh	7.5				
Intersection LOS	A				
Approach	EB	WB	NB		SB
Entry Lanes	1	1	2		1
Conflicting Circle Lanes	1	1	1		1
Adj Approach Flow, veh/h	95	17	436		687
Demand Flow Rate, veh/h	98	17	449		708
Vehicles Circulating, veh/h	715	460	83		59
Vehicles Exiting, veh/h	52	72	730		418
Ped Vol Crossing Leg, #/h	0	0	0		0
Ped Cap Adj	1.000	1.000	1.000		1.000
Approach Delay, s/veh	7.3	4.4	5.4		8.9
Approach LOS	A	A	A		A
Lane	Left	Left	Left	Right	Left
Designated Moves	LTR	LTR	L	TR	LTR
Assumed Moves	LTR	LTR	L	TR	LTR
RT Channelized					
Lane Util	1.000	1.000	0.094	0.906	1.000
Follow-Up Headway, s	2.609	2.609	2.535	2.535	2.609
Critical Headway, s	4.976	4.976	4.544	4.544	4.976
Entry Flow, veh/h	98	17	42	407	708
Cap Entry Lane, veh/h	665	863	1317	1317	1299
Entry HV Adj Factor	0.967	0.991	0.976	0.971	0.971
Flow Entry, veh/h	95	17	41	395	687
Cap Entry, veh/h	643	856	1285	1279	1261
V/C Ratio	0.147	0.020	0.032	0.309	0.545
Control Delay, s/veh	7.3	4.4	3.1	5.6	8.9
LOS	A	A	A	A	A
95th %tile Queue, veh	1	0	0	1	3

Intersection					
Intersection Delay, s/veh 12.8					
Intersection LOS B					
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	2	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	239	14	808	805	
Demand Flow Rate, veh/h	246	14	833	829	
Vehicles Circulating, veh/h	829	809	311	205	
Vehicles Exiting, veh/h	205	335	764	618	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	12.7	6.3	10.1	15.8	
Approach LOS	B	A	B	C	
Lane	Left	Left	Left	Right	Left
Designated Moves	LTR	LTR	L	TR	LTR
Assumed Moves	LTR	LTR	L	TR	LTR
RT Channelized					
Lane Util	1.000	1.000	0.229	0.771	1.000
Follow-Up Headway, s	2.609	2.609	2.535	2.535	2.609
Critical Headway, s	4.976	4.976	4.544	4.544	4.976
Entry Flow, veh/h	246	14	191	642	829
Cap Entry Lane, veh/h	592	605	1070	1070	1120
Entry HV Adj Factor	0.973	0.985	0.969	0.971	0.971
Flow Entry, veh/h	239	14	185	623	805
Cap Entry, veh/h	577	596	1036	1039	1088
V/C Ratio	0.415	0.023	0.178	0.600	0.740
Control Delay, s/veh	12.7	6.3	5.1	11.5	15.8
LOS	B	A	A	B	C
95th %tile Queue, veh	2	0	1	4	7

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	83	96	3	52	0	81	180	1	0	230	75
Future Vol, veh/h	42	83	96	3	52	0	81	180	1	0	230	75
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	46	90	104	3	57	0	88	196	1	0	250	82

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	692	664	291	761	705	197	332	0	0	197	0	0
Stage 1	291	291	-	373	373	-	-	-	-	-	-	-
Stage 2	401	373	-	388	332	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	357	380	746	321	360	842	1222	-	-	1370	-	-
Stage 1	715	670	-	646	617	-	-	-	-	-	-	-
Stage 2	624	617	-	634	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	292	349	746	208	331	842	1222	-	-	1370	-	-
Mov Cap-2 Maneuver	292	349	-	208	331	-	-	-	-	-	-	-
Stage 1	657	670	-	594	567	-	-	-	-	-	-	-
Stage 2	516	567	-	472	643	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	23.2		18.8		2.5		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1222	-	-	433	321	1370	-
HCM Lane V/C Ratio	0.072	-	-	0.555	0.186	-	-
HCM Control Delay (s)	8.2	0	-	23.2	18.8	0	-
HCM Lane LOS	A	A	-	C	C	A	-
HCM 95th %tile Q(veh)	0.2	-	-	3.3	0.7	0	-



Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	83	96	3	52	0	81	180	1	0	230	75
Future Vol, veh/h	42	83	96	3	52	0	81	180	1	0	230	75
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	46	90	104	3	57	0	88	196	1	0	250	82

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	692	664	291	761	705	197	332	0	0	197	0	0
Stage 1	291	291	-	373	373	-	-	-	-	-	-	-
Stage 2	401	373	-	388	332	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	357	380	746	321	360	842	1222	-	-	1370	-	-
Stage 1	715	670	-	646	617	-	-	-	-	-	-	-
Stage 2	624	617	-	634	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	292	349	746	208	331	842	1222	-	-	1370	-	-
Mov Cap-2 Maneuver	292	349	-	208	331	-	-	-	-	-	-	-
Stage 1	657	670	-	594	567	-	-	-	-	-	-	-
Stage 2	516	567	-	472	643	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	23.2		18.8		2.5		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1222	-	-	433	321	1370	-
HCM Lane V/C Ratio	0.072	-	-	0.555	0.186	-	-
HCM Control Delay (s)	8.2	0	-	23.2	18.8	0	-
HCM Lane LOS	A	A	-	C	C	A	-
HCM 95th %tile Q(veh)	0.2	-	-	3.3	0.7	0	-

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	54	392	96	3	201	0	105	506	88	105	581	86
Future Vol, veh/h	54	392	96	3	201	0	105	506	88	105	581	86
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	59	426	104	3	218	0	114	550	96	114	632	93

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1842	1781	679	1998	1779	598	725	0	0	646	0	0
Stage 1	907	907	-	826	826	-	-	-	-	-	-	-
Stage 2	935	874	-	1172	953	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	~ 57	~ 82	450	44	~ 82	500	873	-	-	935	-	-
Stage 1	329	~ 353	-	365	385	-	-	-	-	-	-	-
Stage 2	317	~ 366	-	233	336	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 51	450	-	~ 51	500	873	-	-	935	-	-
Mov Cap-2 Maneuver	-	~ 51	-	-	~ 51	-	-	-	-	-	-	-
Stage 1	261	~ 280	-	289	305	-	-	-	-	-	-	-
Stage 2	71	~ 290	-	-	266	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					1.5		1.3	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	873	-	-	-	935	-	-
HCM Lane V/C Ratio	0.131	-	-	-	0.122	-	-
HCM Control Delay (s)	9.7	0	-	-	9.4	0	-
HCM Lane LOS	A	A	-	-	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.4	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	54	392	96	3	201	0	105	506	88	105	581	86
Future Vol, veh/h	54	392	96	3	201	0	105	506	88	105	581	86
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	59	426	104	3	218	0	114	550	96	114	632	93

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1842	1781	679	1998	1779	598	725	0	0	646	0	0
Stage 1	907	907	-	826	826	-	-	-	-	-	-	-
Stage 2	935	874	-	1172	953	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	~ 57	~ 82	450	44	~ 82	500	873	-	-	935	-	-
Stage 1	329	~ 353	-	365	385	-	-	-	-	-	-	-
Stage 2	317	~ 366	-	233	336	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 51	450	-	~ 51	500	873	-	-	935	-	-
Mov Cap-2 Maneuver	-	~ 51	-	-	~ 51	-	-	-	-	-	-	-
Stage 1	261	~ 280	-	289	305	-	-	-	-	-	-	-
Stage 2	71	~ 290	-	-	266	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					1.5		1.3	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	873	-	-	-	935	-	-
HCM Lane V/C Ratio	0.131	-	-	-	0.122	-	-
HCM Control Delay (s)	9.7	0	-	-	9.4	0	-
HCM Lane LOS	A	A	-	-	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.4	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh	5.7					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	196	224	349		621	
Demand Flow Rate, veh/h	203	231	360		640	
Vehicles Circulating, veh/h	508	356	181		264	
Vehicles Exiting, veh/h	396	185	530		323	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	6.3	5.6	4.5		6.2	
Approach LOS	A	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	203	231	169	191	301	339
Cap Entry Lane, veh/h	922	1049	1143	1218	1059	1135
Entry HV Adj Factor	0.967	0.971	0.971	0.969	0.970	0.971
Flow Entry, veh/h	196	224	164	185	292	329
Cap Entry, veh/h	892	1019	1110	1180	1027	1102
V/C Ratio	0.220	0.220	0.148	0.157	0.284	0.299
Control Delay, s/veh	6.3	5.6	4.5	4.4	6.3	6.1
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	1	1

Intersection						
Intersection Delay, s/veh 14.1						
Intersection LOS B						
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	589	221	760		839	
Demand Flow Rate, veh/h	607	228	783		864	
Vehicles Circulating, veh/h	771	744	617		345	
Vehicles Exiting, veh/h	438	655	761		628	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	28.1	8.5	11.4		8.4	
Approach LOS	D	A	B		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	607	228	368	415	406	458
Cap Entry Lane, veh/h	737	754	765	840	983	1059
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.971	0.971
Flow Entry, veh/h	589	221	357	403	394	445
Cap Entry, veh/h	716	733	743	816	955	1028
V/C Ratio	0.823	0.302	0.481	0.494	0.413	0.432
Control Delay, s/veh	28.1	8.5	11.7	11.1	8.5	8.3
LOS	D	A	B	B	A	A
95th %tile Queue, veh	9	1	3	3	2	2

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕		↕	↕	
Traffic Vol, veh/h	20	192	128	25	152	6	109	4	21	8	4	19
Future Vol, veh/h	20	192	128	25	152	6	109	4	21	8	4	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	115	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	22	209	139	27	165	7	118	4	23	9	4	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	172	0	0	348	0	0	558	549	279	555	611	165
Stage 1	-	-	-	-	-	-	323	323	-	219	219	-
Stage 2	-	-	-	-	-	-	235	226	-	336	392	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1399	-	-	1205	-	-	439	442	757	441	407	877
Stage 1	-	-	-	-	-	-	687	649	-	781	720	-
Stage 2	-	-	-	-	-	-	766	715	-	676	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1399	-	-	1205	-	-	410	423	757	410	389	877
Mov Cap-2 Maneuver	-	-	-	-	-	-	410	423	-	410	389	-
Stage 1	-	-	-	-	-	-	673	636	-	765	702	-
Stage 2	-	-	-	-	-	-	725	697	-	638	593	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.1			17.1			11.2		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	442	1399	-	-	1205	-	-	410	720
HCM Lane V/C Ratio	0.33	0.016	-	-	0.023	-	-	0.021	0.035
HCM Control Delay (s)	17.1	7.6	0	-	8.1	0	-	14	10.2
HCM Lane LOS	C	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	0.1	0.1

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕		↕	↕	
Traffic Vol, veh/h	20	192	128	25	152	6	109	4	21	8	4	19
Future Vol, veh/h	20	192	128	25	152	6	109	4	21	8	4	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	115	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	22	209	139	27	165	7	118	4	23	9	4	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	172	0	0	348	0	0	558	549	279	555	611	165
Stage 1	-	-	-	-	-	-	323	323	-	219	219	-
Stage 2	-	-	-	-	-	-	235	226	-	336	392	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1399	-	-	1205	-	-	439	442	757	441	407	877
Stage 1	-	-	-	-	-	-	687	649	-	781	720	-
Stage 2	-	-	-	-	-	-	766	715	-	676	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1399	-	-	1205	-	-	410	423	757	410	389	877
Mov Cap-2 Maneuver	-	-	-	-	-	-	410	423	-	410	389	-
Stage 1	-	-	-	-	-	-	673	636	-	765	702	-
Stage 2	-	-	-	-	-	-	725	697	-	638	593	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.1			17.1			11.2		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	442	1399	-	-	1205	-	-	410	720
HCM Lane V/C Ratio	0.33	0.016	-	-	0.023	-	-	0.021	0.035
HCM Control Delay (s)	17.1	7.6	0	-	8.1	0	-	14	10.2
HCM Lane LOS	C	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	0.1	0.1

Intersection												
Int Delay, s/veh	8.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕		↕	↕	
Traffic Vol, veh/h	20	513	142	25	336	6	110	4	21	8	4	19
Future Vol, veh/h	20	513	142	25	336	6	110	4	21	8	4	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	115	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	22	558	154	27	365	7	120	4	23	9	4	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	372	0	0	712	0	0	1114	1105	635	1112	1175	365
Stage 1	-	-	-	-	-	-	679	679	-	419	419	-
Stage 2	-	-	-	-	-	-	435	426	-	693	756	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1181	-	-	883	-	-	185	210	477	185	191	678
Stage 1	-	-	-	-	-	-	440	450	-	610	588	-
Stage 2	-	-	-	-	-	-	598	584	-	432	415	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1181	-	-	883	-	-	167	195	477	164	178	678
Mov Cap-2 Maneuver	-	-	-	-	-	-	167	195	-	164	178	-
Stage 1	-	-	-	-	-	-	426	436	-	590	565	-
Stage 2	-	-	-	-	-	-	553	561	-	394	402	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.6			71.4			17.2		
HCM LOS							F			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	187	1181	-	-	883	-	-	164	455
HCM Lane V/C Ratio	0.785	0.018	-	-	0.031	-	-	0.053	0.055
HCM Control Delay (s)	71.4	8.1	0	-	9.2	0	-	28.2	13.4
HCM Lane LOS	F	A	A	-	A	A	-	D	B
HCM 95th %tile Q(veh)	5.3	0.1	-	-	0.1	-	-	0.2	0.2



Intersection												
Int Delay, s/veh	8.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕		↕	↕	
Traffic Vol, veh/h	20	513	142	25	336	6	110	4	21	8	4	19
Future Vol, veh/h	20	513	142	25	336	6	110	4	21	8	4	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	115	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	22	558	154	27	365	7	120	4	23	9	4	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	372	0	0	712	0	0	1114	1105	635	1112	1175	365
Stage 1	-	-	-	-	-	-	679	679	-	419	419	-
Stage 2	-	-	-	-	-	-	435	426	-	693	756	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1181	-	-	883	-	-	185	210	477	185	191	678
Stage 1	-	-	-	-	-	-	440	450	-	610	588	-
Stage 2	-	-	-	-	-	-	598	584	-	432	415	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1181	-	-	883	-	-	167	195	477	164	178	678
Mov Cap-2 Maneuver	-	-	-	-	-	-	167	195	-	164	178	-
Stage 1	-	-	-	-	-	-	426	436	-	590	565	-
Stage 2	-	-	-	-	-	-	553	561	-	394	402	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.6			71.4			17.2		
HCM LOS							F			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	187	1181	-	-	883	-	-	164	455
HCM Lane V/C Ratio	0.785	0.018	-	-	0.031	-	-	0.053	0.055
HCM Control Delay (s)	71.4	8.1	0	-	9.2	0	-	28.2	13.4
HCM Lane LOS	F	A	A	-	A	A	-	D	B
HCM 95th %tile Q(veh)	5.3	0.1	-	-	0.1	-	-	0.2	0.2

Intersection				
Intersection Delay, s/veh	5.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	178	410	101	0
Demand Flow Rate, veh/h	183	422	104	0
Vehicles Circulating, veh/h	13	86	152	496
Vehicles Exiting, veh/h	483	170	44	12
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	6.1	3.9	0.0
Approach LOS	A	A	A	-
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	183	422	104	0
Cap Entry Lane, veh/h	1362	1264	1182	832
Entry HV Adj Factor	0.971	0.973	0.971	1.000
Flow Entry, veh/h	178	410	101	0
Cap Entry, veh/h	1321	1229	1148	832
V/C Ratio	0.134	0.334	0.088	0.000
Control Delay, s/veh	3.8	6.1	3.9	4.3
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	0

Intersection				
Intersection Delay, s/veh	8.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	734	399	147	34
Demand Flow Rate, veh/h	757	411	152	35
Vehicles Circulating, veh/h	41	151	607	528
Vehicles Exiting, veh/h	522	608	191	34
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.3	6.5	7.3	5.0
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	757	411	152	35
Cap Entry Lane, veh/h	1323	1183	743	805
Entry HV Adj Factor	0.970	0.971	0.966	0.968
Flow Entry, veh/h	734	399	147	34
Cap Entry, veh/h	1284	1149	718	780
V/C Ratio	0.572	0.347	0.205	0.043
Control Delay, s/veh	9.3	6.5	7.3	5.0
LOS	A	A	A	A
95th %tile Queue, veh	4	2	1	0

Intersection						
Intersection Delay, s/veh	6.7					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	203	339	529		644	
Demand Flow Rate, veh/h	209	349	544		664	
Vehicles Circulating, veh/h	674	505	389		168	
Vehicles Exiting, veh/h	158	428	494		686	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	7.6	8.3	6.6		5.7	
Approach LOS	A	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	209	349	256	288	312	352
Cap Entry Lane, veh/h	801	924	944	1020	1157	1231
Entry HV Adj Factor	0.971	0.972	0.971	0.973	0.970	0.970
Flow Entry, veh/h	203	339	249	280	303	341
Cap Entry, veh/h	777	898	916	993	1122	1194
V/C Ratio	0.261	0.378	0.271	0.282	0.270	0.286
Control Delay, s/veh	7.6	8.3	6.7	6.5	5.7	5.6
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	2	1	1	1	1

Intersection						
Intersection Delay, s/veh	6.7					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	203	339	529		644	
Demand Flow Rate, veh/h	209	349	544		664	
Vehicles Circulating, veh/h	674	505	389		168	
Vehicles Exiting, veh/h	158	428	494		686	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	7.6	8.3	6.6		5.7	
Approach LOS	A	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	209	349	256	288	312	352
Cap Entry Lane, veh/h	801	924	944	1020	1157	1231
Entry HV Adj Factor	0.971	0.972	0.971	0.973	0.970	0.970
Flow Entry, veh/h	203	339	249	280	303	341
Cap Entry, veh/h	777	898	916	993	1122	1194
V/C Ratio	0.261	0.378	0.271	0.282	0.270	0.286
Control Delay, s/veh	7.6	8.3	6.7	6.5	5.7	5.6
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	2	1	1	1	1

Intersection						
Intersection Delay, s/veh	50.7					
Intersection LOS	F					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	680	595	1090		910	
Demand Flow Rate, veh/h	701	613	1122		938	
Vehicles Circulating, veh/h	982	1062	832		422	
Vehicles Exiting, veh/h	378	892	851		1253	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	105.5	83.4	32.7		10.0	
Approach LOS	F	F	D		B	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	701	613	527	595	441	497
Cap Entry Lane, veh/h	616	576	628	700	916	992
Entry HV Adj Factor	0.971	0.971	0.972	0.971	0.970	0.971
Flow Entry, veh/h	680	595	512	578	428	483
Cap Entry, veh/h	598	559	610	680	888	963
V/C Ratio	1.138	1.065	0.839	0.850	0.482	0.501
Control Delay, s/veh	105.5	83.4	33.4	32.0	10.2	9.9
LOS	F	F	D	D	B	A
95th %tile Queue, veh	22	17	9	10	3	3

Intersection						
Intersection Delay, s/veh	50.7					
Intersection LOS	F					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	680	595	1090		910	
Demand Flow Rate, veh/h	701	613	1122		938	
Vehicles Circulating, veh/h	982	1062	832		422	
Vehicles Exiting, veh/h	378	892	851		1253	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	105.5	83.4	32.7		10.0	
Approach LOS	F	F	D		B	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	701	613	527	595	441	497
Cap Entry Lane, veh/h	616	576	628	700	916	992
Entry HV Adj Factor	0.971	0.971	0.972	0.971	0.970	0.971
Flow Entry, veh/h	680	595	512	578	428	483
Cap Entry, veh/h	598	559	610	680	888	963
V/C Ratio	1.138	1.065	0.839	0.850	0.482	0.501
Control Delay, s/veh	105.5	83.4	33.4	32.0	10.2	9.9
LOS	F	F	D	D	B	A
95th %tile Queue, veh	22	17	9	10	3	3

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	105	170	97	130	142
Future Vol, veh/h	46	105	170	97	130	142
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	50	114	185	105	141	154

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	674	238	0	0	290
Stage 1	238	-	-	-	-
Stage 2	436	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	418	798	-	-	1266
Stage 1	799	-	-	-	-
Stage 2	650	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	367	798	-	-	1266
Mov Cap-2 Maneuver	367	-	-	-	-
Stage 1	799	-	-	-	-
Stage 2	571	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	3.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	1266
HCM Lane V/C Ratio	-	-	0.279	0.112
HCM Control Delay (s)	-	-	13.5	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.1	0.4



Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	46	105	170	97	130	142
Future Vol, veh/h	46	105	170	97	130	142
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	50	114	185	105	141	154

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	674	238	0	0	290
Stage 1	238	-	-	-	-
Stage 2	436	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	418	798	-	-	1266
Stage 1	799	-	-	-	-
Stage 2	650	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	367	798	-	-	1266
Mov Cap-2 Maneuver	367	-	-	-	-
Stage 1	799	-	-	-	-
Stage 2	571	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	3.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	1266
HCM Lane V/C Ratio	-	-	0.279	0.112
HCM Control Delay (s)	-	-	13.5	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.1	0.4

Intersection						
Int Delay, s/veh	20.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	177	105	184	515	130	156
Future Vol, veh/h	177	105	184	515	130	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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	192	114	200	560	141	170

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	932	480	0	0	760	0
Stage 1	480	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	295	584	-	-	847	-
Stage 1	620	-	-	-	-	-
Stage 2	639	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	241	584	-	-	847	-
Mov Cap-2 Maneuver	241	-	-	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	521	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	88	0	4.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	308	847
HCM Lane V/C Ratio	-	-	0.995	0.167
HCM Control Delay (s)	-	-	88	10.1
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	10.6	0.6

Intersection						
Int Delay, s/veh	20.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	177	105	184	515	130	156
Future Vol, veh/h	177	105	184	515	130	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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	192	114	200	560	141	170

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	932	480	0	0	760
Stage 1	480	-	-	-	-
Stage 2	452	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	295	584	-	-	847
Stage 1	620	-	-	-	-
Stage 2	639	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	241	584	-	-	847
Mov Cap-2 Maneuver	241	-	-	-	-
Stage 1	620	-	-	-	-
Stage 2	521	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	88	0	4.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	308	847
HCM Lane V/C Ratio	-	-	0.995	0.167
HCM Control Delay (s)	-	-	88	10.1
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	10.6	0.6

Intersection			
Intersection Delay, s/veh	6.2		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	504	191	125
Demand Flow Rate, veh/h	519	197	129
Vehicles Circulating, veh/h	103	38	411
Vehicles Exiting, veh/h	132	502	211
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.2	4.0	5.5
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	519	197	129
Cap Entry Lane, veh/h	1242	1327	907
Entry HV Adj Factor	0.971	0.970	0.972
Flow Entry, veh/h	504	191	125
Cap Entry, veh/h	1206	1287	882
V/C Ratio	0.418	0.148	0.142
Control Delay, s/veh	7.2	4.0	5.5
LOS	A	A	A
95th %tile Queue, veh	2	1	0

Intersection			
Intersection Delay, s/veh	9.4		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	306	760	311
Demand Flow Rate, veh/h	315	783	320
Vehicles Circulating, veh/h	206	145	198
Vehicles Exiting, veh/h	722	373	323
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.0	12.2	6.0
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	315	783	320
Cap Entry Lane, veh/h	1118	1190	1128
Entry HV Adj Factor	0.971	0.971	0.972
Flow Entry, veh/h	306	760	311
Cap Entry, veh/h	1086	1155	1095
V/C Ratio	0.282	0.658	0.284
Control Delay, s/veh	6.0	12.2	6.0
LOS	A	B	A
95th %tile Queue, veh	1	5	1

Intersection						
Int Delay, s/veh	30.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	68	110	464	101	173	719
Future Vol, veh/h	68	110	464	101	173	719
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	74	120	504	110	188	782

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1717	559	0	0	614	0
Stage 1	559	-	-	-	-	-
Stage 2	1158	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	98	527	-	-	961	-
Stage 1	570	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	~ 64	527	-	-	961	-
Mov Cap-2 Maneuver	~ 64	-	-	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	195	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	269.6	0	1.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	140	961
HCM Lane V/C Ratio	-	-	1.382	0.196
HCM Control Delay (s)	-	-	269.6	9.7
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	12.5	0.7

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	30.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	68	110	464	101	173	719
Future Vol, veh/h	68	110	464	101	173	719
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	74	120	504	110	188	782

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1717	559	0	0	614
Stage 1	559	-	-	-	-
Stage 2	1158	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	98	527	-	-	961
Stage 1	570	-	-	-	-
Stage 2	298	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 64	527	-	-	961
Mov Cap-2 Maneuver	~ 64	-	-	-	-
Stage 1	570	-	-	-	-
Stage 2	195	-	-	-	-











Approach	WB	NB	SB
HCM Control Delay, s	269.6	0	1.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	140	961
HCM Lane V/C Ratio	-	-	1.382	0.196
HCM Control Delay (s)	-	-	269.6	9.7
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	12.5	0.7

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
 172: Greenfield Ave & 16th St











Existing AM Peak  
 Mitigated - Final

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	35	60	434	65	63	349
Future Volume (veh/h)	35	60	434	65	63	349
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	38	65	472	71	68	379
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	121	206	587	88	423	1038
Arrive On Green	0.20	0.20	0.37	0.37	0.09	0.56
Sat Flow, veh/h	600	1026	1576	237	1767	1856
Grp Volume(v), veh/h	104	0	0	543	68	379
Grp Sat Flow(s),veh/h/ln	1641	0	0	1813	1767	1856
Q Serve(g_s), s	2.3	0.0	0.0	11.2	0.8	4.7
Cycle Q Clear(g_c), s	2.3	0.0	0.0	11.2	0.8	4.7
Prop In Lane	0.37	0.62		0.13	1.00	
Lane Grp Cap(c), veh/h	330	0	0	675	423	1038
V/C Ratio(X)	0.31	0.00	0.00	0.80	0.16	0.36
Avail Cap(c_a), veh/h	471	0	0	954	557	1464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	0.0	11.8	7.5	5.1
Incr Delay (d2), s/veh	0.5	0.0	0.0	3.4	0.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	4.0	0.2	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.8	0.0	0.0	15.2	7.6	5.3
LnGrp LOS	B			B	A	A
Approach Vol, veh/h	104		543			447
Approach Delay, s/veh	14.8		15.2			5.7
Approach LOS	B		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.8	20.6			28.4	13.4
Change Period (Y+Rc), s	4.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	22.0			33.0	12.0
Max Q Clear Time (g_c+I1), s	2.8	13.2			6.7	4.3
Green Ext Time (p_c), s	0.0	2.4			2.4	0.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			11.2			
HCM 6th LOS			B			



HCM 6th Signalized Intersection Summary  
 172: Greenfield Ave & 16th St

Existing PM Peak  
 Mitigated - Final

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	68	110	464	101	173	719
Future Volume (veh/h)	68	110	464	101	173	719
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	74	120	504	110	188	782
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	133	215	590	129	425	1111
Arrive On Green	0.21	0.21	0.40	0.40	0.12	0.60
Sat Flow, veh/h	623	1011	1476	322	1767	1856
Grp Volume(v), veh/h	195	0	0	614	188	782
Grp Sat Flow(s),veh/h/ln	1642	0	0	1798	1767	1856
Q Serve(g_s), s	5.6	0.0	0.0	16.5	2.8	15.5
Cycle Q Clear(g_c), s	5.6	0.0	0.0	16.5	2.8	15.5
Prop In Lane	0.38	0.62		0.18	1.00	
Lane Grp Cap(c), veh/h	350	0	0	719	425	1111
V/C Ratio(X)	0.56	0.00	0.00	0.85	0.44	0.70
Avail Cap(c_a), veh/h	371	0	0	914	439	1327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	0.0	14.5	9.9	7.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	6.5	0.7	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	6.9	0.8	4.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.3	0.0	0.0	21.0	10.7	8.8
LnGrp LOS	C			C	B	A
Approach Vol, veh/h	195		614			970
Approach Delay, s/veh	20.3		21.0			9.1
Approach LOS	C		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.6	26.2			36.8	16.3
Change Period (Y+Rc), s	4.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	27.0			38.0	12.0
Max Q Clear Time (g_c+I1), s	4.8	18.5			17.5	7.6
Green Ext Time (p_c), s	0.1	2.7			5.8	0.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			14.5			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	39.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	68	110	1773	101	173	1626
Future Vol, veh/h	68	110	1773	101	173	1626
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	74	120	1927	110	188	1767

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	4125	1982	0	0	2037
Stage 1	1982	-	-	-	-
Stage 2	2143	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	~ 3	~ 76	-	-	275
Stage 1	116	-	-	-	-
Stage 2	96	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	0	~ 76	-	-	275
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	116	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s\$	818.8	0	4.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	76	275
HCM Lane V/C Ratio	-	-	2.546	0.684
HCM Control Delay (s)	-	-	\$ 818.8	42.3
HCM Lane LOS	-	-	F	E
HCM 95th %tile Q(veh)	-	-	18.6	4.6

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	39.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	68	110	1773	101	173	1626
Future Vol, veh/h	68	110	1773	101	173	1626
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	74	120	1927	110	188	1767

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	4125	1982	0	0	2037	0
Stage 1	1982	-	-	-	-	-
Stage 2	2143	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	~ 3	~ 76	-	-	275	-
Stage 1	116	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	0	~ 76	-	-	275	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	116	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s\$	818.8	0	4.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	76	275
HCM Lane V/C Ratio	-	-	2.546	0.684
HCM Control Delay (s)	-	-	\$ 818.8	42.3
HCM Lane LOS	-	-	F	E
HCM 95th %tile Q(veh)	-	-	18.6	4.6

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection					
Intersection Delay, s/veh 10.5					
Intersection LOS B					
Approach	WB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	103	983		1835	
Demand Flow Rate, veh/h	106	1012		1890	
Vehicles Circulating, veh/h	939	70		39	
Vehicles Exiting, veh/h	143	1859		1006	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	7.8	6.6		12.7	
Approach LOS	A	A		B	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	106	476	536	888	1002
Cap Entry Lane, veh/h	639	1266	1338	1302	1374
Entry HV Adj Factor	0.972	0.970	0.972	0.971	0.971
Flow Entry, veh/h	103	462	521	862	973
Cap Entry, veh/h	621	1228	1300	1265	1333
V/C Ratio	0.166	0.376	0.401	0.682	0.729
Control Delay, s/veh	7.8	6.6	6.6	12.1	13.2
LOS	A	A	A	B	B
95th %tile Queue, veh	1	2	2	6	7

Intersection					
Intersection Delay, s/veh 23.4					
Intersection LOS C					
Approach	WB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	194	2037		1955	
Demand Flow Rate, veh/h	200	2098		2014	
Vehicles Circulating, veh/h	1985	194		76	
Vehicles Exiting, veh/h	307	1896		2109	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	52.1	27.7		16.0	
Approach LOS	F	D		C	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	200	986	1112	947	1067
Cap Entry Lane, veh/h	263	1129	1204	1259	1331
Entry HV Adj Factor	0.970	0.971	0.971	0.970	0.971
Flow Entry, veh/h	194	957	1080	919	1036
Cap Entry, veh/h	255	1097	1169	1221	1293
V/C Ratio	0.761	0.873	0.923	0.752	0.801
Control Delay, s/veh	52.1	25.0	30.2	15.0	16.9
LOS	F	C	D	C	C
95th %tile Queue, veh	6	12	15	8	9

Intersection						
Int Delay, s/veh	17.1					
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	732	92	148	509	91	221
Future Vol, veh/h	732	92	148	509	91	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	100	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	796	100	161	553	99	240

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	896	0	1671 796
Stage 1	-	-	-	-	796 -
Stage 2	-	-	-	-	875 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	753	-	105 385
Stage 1	-	-	-	-	442 -
Stage 2	-	-	-	-	406 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	753	-	83 385
Mov Cap-2 Maneuver	-	-	-	-	83 -
Stage 1	-	-	-	-	442 -
Stage 2	-	-	-	-	319 -

Approach	SE	NW	NE
HCM Control Delay, s	0	2.5	93.2
HCM LOS			F

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	SET	SER
Capacity (veh/h)	83	385	753	-	-	-
HCM Lane V/C Ratio	1.192	0.624	0.214	-	-	-
HCM Control Delay (s)	250	28.7	11.1	-	-	-
HCM Lane LOS	F	D	B	-	-	-
HCM 95th %tile Q(veh)	7.2	4.1	0.8	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	17.1					
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	732	92	148	509	91	221
Future Vol, veh/h	732	92	148	509	91	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	100	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	796	100	161	553	99	240

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	896	0	1671 796
Stage 1	-	-	-	-	796 -
Stage 2	-	-	-	-	875 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	753	-	105 385
Stage 1	-	-	-	-	442 -
Stage 2	-	-	-	-	406 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	753	-	83 385
Mov Cap-2 Maneuver	-	-	-	-	83 -
Stage 1	-	-	-	-	442 -
Stage 2	-	-	-	-	319 -

Approach	SE	NW	NE
HCM Control Delay, s	0	2.5	93.2
HCM LOS			F

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	SET	SER
Capacity (veh/h)	83	385	753	-	-	-
HCM Lane V/C Ratio	1.192	0.624	0.214	-	-	-
HCM Control Delay (s)	250	28.7	11.1	-	-	-
HCM Lane LOS	F	D	B	-	-	-
HCM 95th %tile Q(veh)	7.2	4.1	0.8	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 1199.2

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	1639	92	148	1818	91	221
Future Vol, veh/h	1639	92	148	1818	91	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	100	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1782	100	161	1976	99	240

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1882
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.13
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.227
Pot Cap-1 Maneuver	-	-	316
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	316
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	2.1	\$ 15395.8
HCM LOS			F

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	SET	SER
Capacity (veh/h)	1	101	316	-	-	-
HCM Lane V/C Ratio	98.913	2.378	0.509	-	-	-
HCM Control Delay (s)	\$ 51043.7	\$ 717.3	27.6	-	-	-
HCM Lane LOS	F	F	D	-	-	-
HCM 95th %tile Q(veh)	14.8	21.6	2.7	-	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



**Intersection**

Int Delay, s/veh 1199.2

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	1639	92	148	1818	91	221
Future Vol, veh/h	1639	92	148	1818	91	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	100	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1782	100	161	1976	99	240

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1882
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.13
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.227
Pot Cap-1 Maneuver	-	-	316
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	316
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	2.1	\$ 15395.8
HCM LOS			F

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	SET	SER
Capacity (veh/h)	1	101	316	-	-	-
HCM Lane V/C Ratio	98.913	2.378	0.509	-	-	-
HCM Control Delay (s)	\$ 51043.7	\$ 717.3	27.6	-	-	-
HCM Lane LOS	F	F	D	-	-	-
HCM 95th %tile Q(veh)	14.8	21.6	2.7	-	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection					
Intersection Delay, s/veh30.9					
Intersection LOS D					
Approach	SE		NW		NE
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	1800		842		374
Demand Flow Rate, veh/h	1854		867		385
Vehicles Circulating, veh/h	79		77		1794
Vehicles Exiting, veh/h	865		2102		139
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	13.4		6.0		171.3
Approach LOS	B		A		F
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.469	0.531	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	871	983	407	460	385
Cap Entry Lane, veh/h	1255	1328	1258	1330	309
Entry HV Adj Factor	0.971	0.970	0.972	0.970	0.971
Flow Entry, veh/h	846	954	396	446	374
Cap Entry, veh/h	1219	1289	1223	1290	300
V/C Ratio	0.694	0.740	0.324	0.346	1.246
Control Delay, s/veh	12.8	14.0	6.0	6.0	171.3
LOS	B	B	A	A	F
95th %tile Queue, veh	6	7	1	2	17

Intersection					
Intersection Delay, s/veh30.7					
Intersection LOS D					
Approach	SE		NW		NE
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	1882		2137		339
Demand Flow Rate, veh/h	1938		2201		349
Vehicles Circulating, veh/h	166		102		1835
Vehicles Exiting, veh/h	2137		2082		269
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	18.9		23.0		144.9
Approach LOS	C		C		F
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	911	1027	1034	1167	349
Cap Entry Lane, veh/h	1159	1233	1229	1302	298
Entry HV Adj Factor	0.971	0.971	0.971	0.970	0.971
Flow Entry, veh/h	884	997	1004	1132	339
Cap Entry, veh/h	1125	1197	1194	1264	290
V/C Ratio	0.786	0.833	0.841	0.896	1.170
Control Delay, s/veh	17.7	20.0	20.7	25.1	144.9
LOS	C	C	C	D	F
95th %tile Queue, veh	9	11	11	14	15

Intersection	
Intersection Delay, s/veh	22.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	264	49	34	225	6	50	254	48	6	147	37
Future Vol, veh/h	40	264	49	34	225	6	50	254	48	6	147	37
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	43	287	53	37	245	7	54	276	52	7	160	40
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	25.9	19.3	26.2	15.6
HCM LOS	D	C	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	11%	13%	3%
Vol Thru, %	72%	75%	85%	77%
Vol Right, %	14%	14%	2%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	352	353	265	190
LT Vol	50	40	34	6
Through Vol	254	264	225	147
RT Vol	48	49	6	37
Lane Flow Rate	383	384	288	207
Geometry Grp	1	1	1	1
Degree of Util (X)	0.728	0.725	0.57	0.42
Departure Headway (Hd)	6.848	6.8	7.121	7.326
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	528	529	504	489
Service Time	4.904	4.856	5.183	5.397
HCM Lane V/C Ratio	0.725	0.726	0.571	0.423
HCM Control Delay	26.2	25.9	19.3	15.6
HCM Lane LOS	D	D	C	C
HCM 95th-tile Q	6	5.9	3.5	2.1

Intersection	
Intersection Delay, s/veh	22.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	264	49	34	225	6	50	254	48	6	147	37
Future Vol, veh/h	40	264	49	34	225	6	50	254	48	6	147	37
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	43	287	53	37	245	7	54	276	52	7	160	40
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	25.9	19.3	26.2	15.6
HCM LOS	D	C	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	11%	13%	3%
Vol Thru, %	72%	75%	85%	77%
Vol Right, %	14%	14%	2%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	352	353	265	190
LT Vol	50	40	34	6
Through Vol	254	264	225	147
RT Vol	48	49	6	37
Lane Flow Rate	383	384	288	207
Geometry Grp	1	1	1	1
Degree of Util (X)	0.728	0.725	0.57	0.42
Departure Headway (Hd)	6.848	6.8	7.121	7.326
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	528	529	504	489
Service Time	4.904	4.856	5.183	5.397
HCM Lane V/C Ratio	0.725	0.726	0.571	0.423
HCM Control Delay	26.2	25.9	19.3	15.6
HCM Lane LOS	D	D	C	C
HCM 95th-tile Q	6	5.9	3.5	2.1

Intersection	
Intersection Delay, s/veh	60.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	328	49	38	242	10	107	271	54	18	153	40
Future Vol, veh/h	45	328	49	38	242	10	107	271	54	18	153	40
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	49	357	53	41	263	11	116	295	59	20	166	43
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	73.3	33.1	84.8	23.3
HCM LOS	F	D	F	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	11%	13%	9%
Vol Thru, %	63%	78%	83%	73%
Vol Right, %	12%	12%	3%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	432	422	290	211
LT Vol	107	45	38	18
Through Vol	271	328	242	153
RT Vol	54	49	10	40
Lane Flow Rate	470	459	315	229
Geometry Grp	1	1	1	1
Degree of Util (X)	1.048	1.005	0.741	0.562
Departure Headway (Hd)	8.031	8.207	8.817	9.178
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	451	445	413	397
Service Time	6.131	6.207	6.817	7.178
HCM Lane V/C Ratio	1.042	1.031	0.763	0.577
HCM Control Delay	84.8	73.3	33.1	23.3
HCM Lane LOS	F	F	D	C
HCM 95th-tile Q	14.6	13	5.9	3.3

Intersection	
Intersection Delay, s/veh	60.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	328	49	38	242	10	107	271	54	18	153	40
Future Vol, veh/h	45	328	49	38	242	10	107	271	54	18	153	40
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	49	357	53	41	263	11	116	295	59	20	166	43
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	73.3	33.1	84.8	23.3
HCM LOS	F	D	F	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	11%	13%	9%
Vol Thru, %	63%	78%	83%	73%
Vol Right, %	12%	12%	3%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	432	422	290	211
LT Vol	107	45	38	18
Through Vol	271	328	242	153
RT Vol	54	49	10	40
Lane Flow Rate	470	459	315	229
Geometry Grp	1	1	1	1
Degree of Util (X)	1.048	1.005	0.741	0.562
Departure Headway (Hd)	8.031	8.207	8.817	9.178
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	451	445	413	397
Service Time	6.131	6.207	6.817	7.178
HCM Lane V/C Ratio	1.042	1.031	0.763	0.577
HCM Control Delay	84.8	73.3	33.1	23.3
HCM Lane LOS	F	F	D	C
HCM 95th-tile Q	14.6	13	5.9	3.3

Intersection				
Intersection Delay, s/veh	5.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	181	328	133	285
Demand Flow Rate, veh/h	187	338	137	293
Vehicles Circulating, veh/h	269	131	135	378
Vehicles Exiting, veh/h	402	141	321	91
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.2	5.7	4.1	7.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	187	338	137	293
Cap Entry Lane, veh/h	1049	1207	1202	938
Entry HV Adj Factor	0.970	0.971	0.970	0.972
Flow Entry, veh/h	181	328	133	285
Cap Entry, veh/h	1017	1172	1166	913
V/C Ratio	0.178	0.280	0.114	0.312
Control Delay, s/veh	5.2	5.7	4.1	7.3
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	1



Intersection				
Intersection Delay, s/veh	9.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	459	315	470	229
Demand Flow Rate, veh/h	473	324	484	236
Vehicles Circulating, veh/h	234	473	439	432
Vehicles Exiting, veh/h	434	450	268	365
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.2	8.9	11.9	7.0
Approach LOS	A	A	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	473	324	484	236
Cap Entry Lane, veh/h	1087	852	882	888
Entry HV Adj Factor	0.971	0.973	0.971	0.970
Flow Entry, veh/h	459	315	470	229
Cap Entry, veh/h	1055	828	857	862
V/C Ratio	0.435	0.380	0.549	0.266
Control Delay, s/veh	8.2	8.9	11.9	7.0
LOS	A	A	B	A
95th %tile Queue, veh	2	2	3	1

Intersection						
Intersection Delay, s/veh 11.6						
Intersection LOS B						
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	360	156	1315		847	
Demand Flow Rate, veh/h	371	161	1355		872	
Vehicles Circulating, veh/h	808	1430	320		262	
Vehicles Exiting, veh/h	326	245	859		1329	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	13.2	16.1	13.1		7.6	
Approach LOS	B	C	B		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	371	161	637	718	410	462
Cap Entry Lane, veh/h	715	421	1006	1082	1061	1137
Entry HV Adj Factor	0.972	0.971	0.970	0.971	0.971	0.971
Flow Entry, veh/h	360	156	618	697	398	449
Cap Entry, veh/h	694	409	976	1050	1029	1104
V/C Ratio	0.519	0.382	0.633	0.664	0.387	0.406
Control Delay, s/veh	13.2	16.1	13.0	13.2	7.6	7.5
LOS	B	C	B	B	A	A
95th %tile Queue, veh	3	2	5	5	2	2

Intersection						
Intersection Delay, s/veh	11.6					
Intersection LOS	B					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	360	156	1315		847	
Demand Flow Rate, veh/h	371	161	1355		872	
Vehicles Circulating, veh/h	808	1430	320		262	
Vehicles Exiting, veh/h	326	245	859		1329	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	13.2	16.1	13.1		7.6	
Approach LOS	B	C	B		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	371	161	637	718	410	462
Cap Entry Lane, veh/h	715	421	1006	1082	1061	1137
Entry HV Adj Factor	0.972	0.971	0.970	0.971	0.971	0.971
Flow Entry, veh/h	360	156	618	697	398	449
Cap Entry, veh/h	694	409	976	1050	1029	1104
V/C Ratio	0.519	0.382	0.633	0.664	0.387	0.406
Control Delay, s/veh	13.2	16.1	13.0	13.2	7.6	7.5
LOS	B	C	B	B	A	A
95th %tile Queue, veh	3	2	5	5	2	2

Intersection						
Intersection Delay, s/veh50.7						
Intersection LOS F						
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	536	164	2111		1080	
Demand Flow Rate, veh/h	553	170	2174		1113	
Vehicles Circulating, veh/h	1040	2172	349		464	
Vehicles Exiting, veh/h	537	351	1244		1878	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	51.5	59.0	69.1		13.1	
Approach LOS	F	F	F		B	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	553	170	1022	1152	523	590
Cap Entry Lane, veh/h	587	224	979	1056	881	957
Entry HV Adj Factor	0.970	0.966	0.971	0.971	0.971	0.970
Flow Entry, veh/h	536	164	992	1119	508	572
Cap Entry, veh/h	569	217	950	1025	855	929
V/C Ratio	0.943	0.759	1.044	1.091	0.594	0.616
Control Delay, s/veh	51.5	59.0	61.9	75.4	13.1	13.0
LOS	F	F	F	F	B	B
95th %tile Queue, veh	12	5	22	27	4	4

Intersection						
Intersection Delay, s/veh50.7						
Intersection LOS F						
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	536	164	2111		1080	
Demand Flow Rate, veh/h	553	170	2174		1113	
Vehicles Circulating, veh/h	1040	2172	349		464	
Vehicles Exiting, veh/h	537	351	1244		1878	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	51.5	59.0	69.1		13.1	
Approach LOS	F	F	F		B	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	553	170	1022	1152	523	590
Cap Entry Lane, veh/h	587	224	979	1056	881	957
Entry HV Adj Factor	0.970	0.966	0.971	0.971	0.971	0.970
Flow Entry, veh/h	536	164	992	1119	508	572
Cap Entry, veh/h	569	217	950	1025	855	929
V/C Ratio	0.943	0.759	1.044	1.091	0.594	0.616
Control Delay, s/veh	51.5	59.0	61.9	75.4	13.1	13.0
LOS	F	F	F	F	B	B
95th %tile Queue, veh	12	5	22	27	4	4

Intersection

Intersection Delay, s/veh 9.4

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕		↕	
Traffic Vol, veh/h	15	188	18	8	122	6	22	14	8	7	9	26
Future Vol, veh/h	15	188	18	8	122	6	22	14	8	7	9	26
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	16	204	20	9	133	7	24	15	9	8	10	28
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	9.7	9.4	8.8	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	61%	0%	7%	0%	6%	17%
Vol Thru, %	39%	0%	93%	0%	90%	21%
Vol Right, %	0%	100%	0%	100%	4%	62%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	8	203	18	136	42
LT Vol	22	0	15	0	8	7
Through Vol	14	0	188	0	122	9
RT Vol	0	8	0	18	6	26
Lane Flow Rate	39	9	221	20	148	46
Geometry Grp	5	5	5	5	4b	4b
Degree of Util (X)	0.064	0.012	0.305	0.023	0.208	0.067
Departure Headway (Hd)	5.875	4.861	4.971	4.231	5.07	5.249
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	610	735	724	846	708	682
Service Time	3.612	2.598	2.696	1.956	3.099	3.287
HCM Lane V/C Ratio	0.064	0.012	0.305	0.024	0.209	0.067
HCM Control Delay	9	7.7	9.9	7.1	9.4	8.7
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0	1.3	0.1	0.8	0.2

Intersection												
Intersection Delay, s/veh	9.4											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕		↕	
Traffic Vol, veh/h	15	188	18	8	122	6	22	14	8	7	9	26
Future Vol, veh/h	15	188	18	8	122	6	22	14	8	7	9	26
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	16	204	20	9	133	7	24	15	9	8	10	28
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	9.7	9.4	8.8	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	61%	0%	7%	0%	6%	17%
Vol Thru, %	39%	0%	93%	0%	90%	21%
Vol Right, %	0%	100%	0%	100%	4%	62%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	8	203	18	136	42
LT Vol	22	0	15	0	8	7
Through Vol	14	0	188	0	122	9
RT Vol	0	8	0	18	6	26
Lane Flow Rate	39	9	221	20	148	46
Geometry Grp	5	5	5	5	4b	4b
Degree of Util (X)	0.064	0.012	0.305	0.023	0.208	0.067
Departure Headway (Hd)	5.875	4.861	4.971	4.231	5.07	5.249
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	610	735	724	846	708	682
Service Time	3.612	2.598	2.696	1.956	3.099	3.287
HCM Lane V/C Ratio	0.064	0.012	0.305	0.024	0.209	0.067
HCM Control Delay	9	7.7	9.9	7.1	9.4	8.7
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0	1.3	0.1	0.8	0.2

Intersection												
Intersection Delay, s/veh	10.6											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔			↔	↔		↔	
Traffic Vol, veh/h	27	188	18	8	122	114	22	14	8	59	9	33
Future Vol, veh/h	27	188	18	8	122	114	22	14	8	59	9	33
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	29	204	20	9	133	124	24	15	9	64	10	36
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	10.6	11.1	9.3	10.2
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	61%	0%	13%	0%	3%	58%
Vol Thru, %	39%	0%	87%	0%	50%	9%
Vol Right, %	0%	100%	0%	100%	47%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	8	215	18	244	101
LT Vol	22	0	27	0	8	59
Through Vol	14	0	188	0	122	9
RT Vol	0	8	0	18	114	33
Lane Flow Rate	39	9	234	20	265	110
Geometry Grp	5	5	5	5	4b	4b
Degree of Util (X)	0.069	0.013	0.345	0.025	0.373	0.178
Departure Headway (Hd)	6.31	5.292	5.322	4.554	5.058	5.841
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	669	673	780	708	609
Service Time	4.104	3.085	3.084	2.316	3.12	3.925
HCM Lane V/C Ratio	0.069	0.013	0.348	0.026	0.374	0.181
HCM Control Delay	9.6	8.2	10.9	7.4	11.1	10.2
HCM Lane LOS	A	A	B	A	B	B
HCM 95th-tile Q	0.2	0	1.5	0.1	1.7	0.6



Intersection

Intersection Delay, s/veh 10.6

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕		↕	
Traffic Vol, veh/h	27	188	18	8	122	114	22	14	8	59	9	33
Future Vol, veh/h	27	188	18	8	122	114	22	14	8	59	9	33
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	29	204	20	9	133	124	24	15	9	64	10	36
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	10.6	11.1	9.3	10.2
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	61%	0%	13%	0%	3%	58%
Vol Thru, %	39%	0%	87%	0%	50%	9%
Vol Right, %	0%	100%	0%	100%	47%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	8	215	18	244	101
LT Vol	22	0	27	0	8	59
Through Vol	14	0	188	0	122	9
RT Vol	0	8	0	18	114	33
Lane Flow Rate	39	9	234	20	265	110
Geometry Grp	5	5	5	5	4b	4b
Degree of Util (X)	0.069	0.013	0.345	0.025	0.373	0.178
Departure Headway (Hd)	6.31	5.292	5.322	4.554	5.058	5.841
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	669	673	780	708	609
Service Time	4.104	3.085	3.084	2.316	3.12	3.925
HCM Lane V/C Ratio	0.069	0.013	0.348	0.026	0.374	0.181
HCM Control Delay	9.6	8.2	10.9	7.4	11.1	10.2
HCM Lane LOS	A	A	B	A	B	B
HCM 95th-tile Q	0.2	0	1.5	0.1	1.7	0.6

Intersection

Intersection Delay, s/veh10.2

Intersection LOS B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	75	180	188	64	78	53
Future Vol, veh/h	75	180	188	64	78	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	82	196	204	70	85	58
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach RightNB			EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	10.1	10.9	8.9
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	75%	29%	0%
Vol Thru, %	25%	0%	60%
Vol Right, %	0%	71%	40%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	252	255	131
LT Vol	188	75	0
Through Vol	64	0	78
RT Vol	0	180	53
Lane Flow Rate	274	277	142
Geometry Grp	1	1	1
Degree of Util (X)	0.375	0.353	0.186
Departure Headway (Hd)	4.923	4.582	4.706
Convergence, Y/N	Yes	Yes	Yes
Cap	726	782	756
Service Time	2.981	2.632	2.771
HCM Lane V/C Ratio	0.377	0.354	0.188
HCM Control Delay	10.9	10.1	8.9
HCM Lane LOS	B	B	A
HCM 95th-tile Q	1.7	1.6	0.7

**Intersection**

Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	75	180	188	64	78	53
Future Vol, veh/h	75	180	188	64	78	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	82	196	204	70	85	58
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB		
Conflicting Lanes Left	1	1	0
Conflicting Approach Right		NB	EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	10.1	10.9	8.9
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	75%	29%	0%
Vol Thru, %	25%	0%	60%
Vol Right, %	0%	71%	40%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	252	255	131
LT Vol	188	75	0
Through Vol	64	0	78
RT Vol	0	180	53
Lane Flow Rate	274	277	142
Geometry Grp	1	1	1
Degree of Util (X)	0.375	0.353	0.186
Departure Headway (Hd)	4.923	4.582	4.706
Convergence, Y/N	Yes	Yes	Yes
Cap	726	782	756
Service Time	2.981	2.632	2.771
HCM Lane V/C Ratio	0.377	0.354	0.188
HCM Control Delay	10.9	10.1	8.9
HCM Lane LOS	B	B	A
HCM 95th-tile Q	1.7	1.6	0.7

Intersection

Intersection Delay, s/veh 51.4

Intersection LOS F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	78	344	546	65	79	55
Future Vol, veh/h	78	344	546	65	79	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	85	374	593	71	86	60
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	22.1	80.4	11.4
HCM LOS	C	F	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	89%	18%	0%
Vol Thru, %	11%	0%	59%
Vol Right, %	0%	82%	41%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	611	422	134
LT Vol	546	78	0
Through Vol	65	0	79
RT Vol	0	344	55
Lane Flow Rate	664	459	146
Geometry Grp	1	1	1
Degree of Util (X)	1.072	0.712	0.249
Departure Headway (Hd)	5.811	5.888	6.322
Convergence, Y/N	Yes	Yes	Yes
Cap	631	619	571
Service Time	3.821	3.888	4.322
HCM Lane V/C Ratio	1.052	0.742	0.256
HCM Control Delay	80.4	22.1	11.4
HCM Lane LOS	F	C	B
HCM 95th-tile Q	18.8	5.9	1

**Intersection**

Intersection Delay, s/veh 51.4

Intersection LOS F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	78	344	546	65	79	55
Future Vol, veh/h	78	344	546	65	79	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	85	374	593	71	86	60
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	22.1	80.4	11.4
HCM LOS	C	F	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	89%	18%	0%
Vol Thru, %	11%	0%	59%
Vol Right, %	0%	82%	41%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	611	422	134
LT Vol	546	78	0
Through Vol	65	0	79
RT Vol	0	344	55
Lane Flow Rate	664	459	146
Geometry Grp	1	1	1
Degree of Util (X)	1.072	0.712	0.249
Departure Headway (Hd)	5.811	5.888	6.322
Convergence, Y/N	Yes	Yes	Yes
Cap	631	619	571
Service Time	3.821	3.888	4.322
HCM Lane V/C Ratio	1.052	0.742	0.256
HCM Control Delay	80.4	22.1	11.4
HCM Lane LOS	F	C	B
HCM 95th-tile Q	18.8	5.9	1

Intersection			
Intersection Delay, s/veh	5.0		
Intersection LOS	A		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	380	94	129
Demand Flow Rate, veh/h	392	97	133
Vehicles Circulating, veh/h	99	18	61
Vehicles Exiting, veh/h	95	473	54
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.9	3.3	3.7
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	392	97	133
Cap Entry Lane, veh/h	1247	1355	1297
Entry HV Adj Factor	0.969	0.969	0.971
Flow Entry, veh/h	380	94	129
Cap Entry, veh/h	1209	1312	1259
V/C Ratio	0.314	0.072	0.103
Control Delay, s/veh	5.9	3.3	3.7
LOS	A	A	A
95th %tile Queue, veh	1	0	0

Intersection			
Intersection Delay, s/veh	8.0		
Intersection LOS	A		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	459	664	146
Demand Flow Rate, veh/h	473	684	151
Vehicles Circulating, veh/h	89	88	611
Vehicles Exiting, veh/h	673	474	161
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.6	9.1	7.3
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	473	684	151
Cap Entry Lane, veh/h	1260	1261	740
Entry HV Adj Factor	0.970	0.971	0.970
Flow Entry, veh/h	459	664	146
Cap Entry, veh/h	1223	1224	717
V/C Ratio	0.375	0.542	0.204
Control Delay, s/veh	6.6	9.1	7.3
LOS	A	A	A
95th %tile Queue, veh	2	3	1

HCM 6th Signalized Intersection Summary  
178: SR 37 & Greenfield Ave

Existing AM Peak  
12/11/2023



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	201	1357	143	339	918	116	199	518	222	119	340	523
Future Volume (veh/h)	201	1357	143	339	918	116	199	518	222	119	340	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	218	1475	0	368	998	0	216	563	241	129	370	568
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	218	937		184	870		357	731	814	271	677	738
Arrive On Green	0.12	0.27	0.00	0.10	0.25	0.00	0.09	0.39	0.39	0.06	0.36	0.36
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	218	1475	0	368	998	0	216	563	241	129	370	568
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	13.0	28.0	0.0	11.0	26.0	0.0	7.8	27.8	9.2	4.7	16.7	31.6
Cycle Q Clear(g_c), s	13.0	28.0	0.0	11.0	26.0	0.0	7.8	27.8	9.2	4.7	16.7	31.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	937		184	870		357	731	814	271	677	738
V/C Ratio(X)	1.00	1.57		1.99	1.15		0.60	0.77	0.30	0.48	0.55	0.77
Avail Cap(c_a), veh/h	218	937		184	870		409	1356	1343	424	1409	1358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	38.7	0.0	47.2	39.7	0.0	19.3	27.8	14.5	22.1	26.6	23.3
Incr Delay (d2), s/veh	60.9	263.6	0.0	466.4	79.6	0.0	2.0	1.7	0.2	1.3	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	45.5	0.0	28.5	20.0	0.0	3.2	12.2	3.1	2.0	7.2	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.1	302.3	0.0	513.6	119.3	0.0	21.2	29.5	14.7	23.4	27.3	25.0
LnGrp LOS	F	F		F	F		C	C	B	C	C	C
Approach Vol, veh/h	1693				1366				1020		1067	
Approach Delay, s/veh	277.2				225.5				24.3		25.6	
Approach LOS	F				F				C		C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	33.0	10.8	46.5	17.0	31.0	13.9	43.4				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	28.0	16.0	77.0	13.0	26.0	13.0	80.0					
Max Q Clear Time (g_c+M3), s	30.0	6.7	29.8	15.0	28.0	9.8	33.6					
Green Ext Time (p_c), s	0.0	0.0	0.2	5.0	0.0	0.0	0.2	4.8				

Intersection Summary

HCM 6th Ctrl Delay	161.2
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



HCM 6th Signalized Intersection Summary  
178: SR 37 & Greenfield Ave

Existing PM Peak  
12/11/2023



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	201	1357	143	339	918	116	199	518	222	119	340	523
Future Volume (veh/h)	201	1357	143	339	918	116	199	518	222	119	340	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	218	1475	0	368	998	0	216	563	241	129	370	568
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	218	937		184	870		357	731	814	271	677	738
Arrive On Green	0.12	0.27	0.00	0.10	0.25	0.00	0.09	0.39	0.39	0.06	0.36	0.36
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	218	1475	0	368	998	0	216	563	241	129	370	568
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	13.0	28.0	0.0	11.0	26.0	0.0	7.8	27.8	9.2	4.7	16.7	31.6
Cycle Q Clear(g_c), s	13.0	28.0	0.0	11.0	26.0	0.0	7.8	27.8	9.2	4.7	16.7	31.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	937		184	870		357	731	814	271	677	738
V/C Ratio(X)	1.00	1.57		1.99	1.15		0.60	0.77	0.30	0.48	0.55	0.77
Avail Cap(c_a), veh/h	218	937		184	870		409	1356	1343	424	1409	1358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	38.7	0.0	47.2	39.7	0.0	19.3	27.8	14.5	22.1	26.6	23.3
Incr Delay (d2), s/veh	60.9	263.6	0.0	466.4	79.6	0.0	2.0	1.7	0.2	1.3	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	45.5	0.0	28.5	20.0	0.0	3.2	12.2	3.1	2.0	7.2	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.1	302.3	0.0	513.6	119.3	0.0	21.2	29.5	14.7	23.4	27.3	25.0
LnGrp LOS	F	F		F	F		C	C	B	C	C	C
Approach Vol, veh/h		1693			1366			1020			1067	
Approach Delay, s/veh		277.2			225.5			24.3			25.6	
Approach LOS		F			F			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	33.0	10.8	46.5	17.0	31.0	13.9	43.4				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	30.0	28.0	16.0	77.0	13.0	26.0	13.0	80.0				
Max Q Clear Time (g_c+M3), s	30.0	30.0	6.7	29.8	15.0	28.0	9.8	33.6				
Green Ext Time (p_c), s	0.0	0.0	0.2	5.0	0.0	0.0	0.2	4.8				

Intersection Summary

HCM 6th Ctrl Delay	161.2
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
178: SR 37 & Greenfield Ave

Future AM Peak



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	217	1767	335	689	1042	116	199	1401	246	235	1632	1406
Future Volume (veh/h)	217	1767	335	689	1042	116	199	1401	246	235	1632	1406
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	236	1921	0	749	1133	0	216	1523	267	255	1774	1528
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	212	893		318	1105		142	717	797	154	730	902
Arrive On Green	0.12	0.25	0.00	0.18	0.31	0.00	0.05	0.39	0.39	0.06	0.39	0.39
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	236	1921	0	749	1133	0	216	1523	267	255	1774	1528
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	18.0	38.0	0.0	27.0	47.0	0.0	8.0	58.0	15.1	9.0	59.0	59.0
Cycle Q Clear(g_c), s	18.0	38.0	0.0	27.0	47.0	0.0	8.0	58.0	15.1	9.0	59.0	59.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	893		318	1105		142	717	797	154	730	902
V/C Ratio(X)	1.11	2.15		2.35	1.03		1.52	2.12	0.34	1.66	2.43	1.69
Avail Cap(c_a), veh/h	212	893		318	1105		142	717	797	154	730	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.0	56.0	0.0	61.5	51.5	0.0	41.3	46.0	22.0	43.2	45.5	32.0
Incr Delay (d2), s/veh	95.4	521.6	0.0	619.3	33.8	0.0	265.8	509.9	0.2	322.0	648.0	317.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.5	80.9	0.0	66.4	25.0	0.0	13.6	127.9	5.6	17.1	157.7	110.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	161.4	577.6	0.0	680.8	85.3	0.0	307.1	555.9	22.2	365.2	693.5	349.5
LnGrp LOS	F	F		F	F		F	F	C	F	F	F
Approach Vol, veh/h	2157		1882		2006		3557					
Approach Delay, s/veh	532.1		322.3		458.1		522.2					
Approach LOS	F		F		F		F					
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	43.0	13.0	63.0	22.0	52.0	12.0	64.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	27.0	38.0	9.0	58.0	18.0	47.0	8.0	59.0				
Max Q Clear Time (g_c+Y), s	29.0	40.0	11.0	60.0	20.0	49.0	10.0	61.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	471.8
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
178: SR 37 & Greenfield Ave

Future PM Peak



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	217	1767	335	689	1042	116	199	1401	246	235	1632	1406
Future Volume (veh/h)	217	1767	335	689	1042	116	199	1401	246	235	1632	1406
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	236	1921	0	749	1133	0	216	1523	267	255	1774	1528
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	212	893		318	1105		142	717	797	154	730	902
Arrive On Green	0.12	0.25	0.00	0.18	0.31	0.00	0.05	0.39	0.39	0.06	0.39	0.39
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	236	1921	0	749	1133	0	216	1523	267	255	1774	1528
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	18.0	38.0	0.0	27.0	47.0	0.0	8.0	58.0	15.1	9.0	59.0	59.0
Cycle Q Clear(g_c), s	18.0	38.0	0.0	27.0	47.0	0.0	8.0	58.0	15.1	9.0	59.0	59.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	893		318	1105		142	717	797	154	730	902
V/C Ratio(X)	1.11	2.15		2.35	1.03		1.52	2.12	0.34	1.66	2.43	1.69
Avail Cap(c_a), veh/h	212	893		318	1105		142	717	797	154	730	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.0	56.0	0.0	61.5	51.5	0.0	41.3	46.0	22.0	43.2	45.5	32.0
Incr Delay (d2), s/veh	95.4	521.6	0.0	619.3	33.8	0.0	265.8	509.9	0.2	322.0	648.0	317.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.5	80.9	0.0	66.4	25.0	0.0	13.6	127.9	5.6	17.1	157.7	110.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	161.4	577.6	0.0	680.8	85.3	0.0	307.1	555.9	22.2	365.2	693.5	349.5
LnGrp LOS	F	F		F	F		F	F	C	F	F	F
Approach Vol, veh/h		2157			1882			2006			3557	
Approach Delay, s/veh		532.1			322.3			458.1			522.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	43.0	13.0	63.0	22.0	52.0	12.0	64.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	27.0	38.0	9.0	58.0	18.0	47.0	8.0	59.0				
Max Q Clear Time (g_c+Q), s	29.0	40.0	11.0	60.0	20.0	49.0	10.0	61.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	471.8
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	411	77	8	359	0	39	37	9	0	25	8
Future Vol, veh/h	16	411	77	8	359	0	39	37	9	0	25	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	447	84	9	390	0	42	40	10	0	27	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	390	0	0	531	0	0	949	931	489	956	973	390
Stage 1	-	-	-	-	-	-	523	523	-	408	408	-
Stage 2	-	-	-	-	-	-	426	408	-	548	565	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1163	-	-	1031	-	-	239	266	577	237	251	656
Stage 1	-	-	-	-	-	-	535	529	-	618	595	-
Stage 2	-	-	-	-	-	-	604	595	-	519	506	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1163	-	-	1031	-	-	211	257	577	200	243	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	257	-	200	243	-
Stage 1	-	-	-	-	-	-	524	518	-	605	588	-
Stage 2	-	-	-	-	-	-	562	588	-	461	495	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.2			28			19.3		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	247	1163	-	-	1031	-	-	287
HCM Lane V/C Ratio	0.374	0.015	-	-	0.008	-	-	0.125
HCM Control Delay (s)	28	8.1	0	-	8.5	0	-	19.3
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.7	0	-	-	0	-	-	0.4

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	411	77	8	359	0	39	37	9	0	25	8
Future Vol, veh/h	16	411	77	8	359	0	39	37	9	0	25	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	447	84	9	390	0	42	40	10	0	27	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	390	0	0	531	0	0	949	931	489	956	973	390
Stage 1	-	-	-	-	-	-	523	523	-	408	408	-
Stage 2	-	-	-	-	-	-	426	408	-	548	565	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1163	-	-	1031	-	-	239	266	577	237	251	656
Stage 1	-	-	-	-	-	-	535	529	-	618	595	-
Stage 2	-	-	-	-	-	-	604	595	-	519	506	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1163	-	-	1031	-	-	211	257	577	200	243	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	257	-	200	243	-
Stage 1	-	-	-	-	-	-	524	518	-	605	588	-
Stage 2	-	-	-	-	-	-	562	588	-	461	495	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.2			28			19.3		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	247	1163	-	-	1031	-	-	287
HCM Lane V/C Ratio	0.374	0.015	-	-	0.008	-	-	0.125
HCM Control Delay (s)	28	8.1	0	-	8.5	0	-	19.3
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.7	0	-	-	0	-	-	0.4

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	489	82	41	417	0	41	43	43	0	27	12
Future Vol, veh/h	23	489	82	41	417	0	41	43	43	0	27	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	25	532	89	45	453	0	45	47	47	0	29	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	453	0	0	621	0	0	1191	1170	577	1217	1214	453
Stage 1	-	-	-	-	-	-	627	627	-	543	543	-
Stage 2	-	-	-	-	-	-	564	543	-	674	671	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1102	-	-	955	-	-	163	192	514	157	181	605
Stage 1	-	-	-	-	-	-	470	475	-	522	518	-
Stage 2	-	-	-	-	-	-	509	518	-	443	453	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1102	-	-	955	-	-	128	174	514	105	164	605
Mov Cap-2 Maneuver	-	-	-	-	-	-	128	174	-	105	164	-
Stage 1	-	-	-	-	-	-	454	458	-	504	485	-
Stage 2	-	-	-	-	-	-	438	485	-	349	437	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			58.7			26.3		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	195	1102	-	-	955	-	-	211
HCM Lane V/C Ratio	0.708	0.023	-	-	0.047	-	-	0.201
HCM Control Delay (s)	58.7	8.3	0	-	9	0	-	26.3
HCM Lane LOS	F	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	4.5	0.1	-	-	0.1	-	-	0.7

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	489	82	41	417	0	41	43	43	0	27	12
Future Vol, veh/h	23	489	82	41	417	0	41	43	43	0	27	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	25	532	89	45	453	0	45	47	47	0	29	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	453	0	0	621	0	0	1191	1170	577	1217	1214	453
Stage 1	-	-	-	-	-	-	627	627	-	543	543	-
Stage 2	-	-	-	-	-	-	564	543	-	674	671	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1102	-	-	955	-	-	163	192	514	157	181	605
Stage 1	-	-	-	-	-	-	470	475	-	522	518	-
Stage 2	-	-	-	-	-	-	509	518	-	443	453	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1102	-	-	955	-	-	128	174	514	105	164	605
Mov Cap-2 Maneuver	-	-	-	-	-	-	128	174	-	105	164	-
Stage 1	-	-	-	-	-	-	454	458	-	504	485	-
Stage 2	-	-	-	-	-	-	438	485	-	349	437	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			58.7			26.3		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	195	1102	-	-	955	-	-	211
HCM Lane V/C Ratio	0.708	0.023	-	-	0.047	-	-	0.201
HCM Control Delay (s)	58.7	8.3	0	-	9	0	-	26.3
HCM Lane LOS	F	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	4.5	0.1	-	-	0.1	-	-	0.7

Intersection				
Intersection Delay, s/veh	6.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	311	502	127	33
Demand Flow Rate, veh/h	320	518	131	34
Vehicles Circulating, veh/h	109	131	294	622
Vehicles Exiting, veh/h	547	294	135	27
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.3	7.5	4.8	5.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	320	518	131	34
Cap Entry Lane, veh/h	1235	1207	1022	732
Entry HV Adj Factor	0.971	0.970	0.973	0.981
Flow Entry, veh/h	311	502	127	33
Cap Entry, veh/h	1199	1171	995	718
V/C Ratio	0.259	0.429	0.128	0.046
Control Delay, s/veh	5.3	7.5	4.8	5.5
LOS	A	A	A	A
95th %tile Queue, veh	1	2	0	0



Intersection				
Intersection Delay, s/veh	7.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	646	498	139	42
Demand Flow Rate, veh/h	666	513	142	43
Vehicles Circulating, veh/h	76	120	574	559
Vehicles Exiting, veh/h	526	596	168	74
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.6	7.3	6.8	5.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	666	513	142	43
Cap Entry Lane, veh/h	1277	1221	768	780
Entry HV Adj Factor	0.970	0.972	0.976	0.980
Flow Entry, veh/h	646	498	139	42
Cap Entry, veh/h	1239	1186	750	764
V/C Ratio	0.522	0.420	0.185	0.055
Control Delay, s/veh	8.6	7.3	6.8	5.3
LOS	A	A	A	A
95th %tile Queue, veh	3	2	1	0

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	385	1	1	337	19	1	16	0	0	25	8
Future Vol, veh/h	5	385	1	1	337	19	1	16	0	0	25	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	418	1	1	366	21	1	17	0	0	27	9

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	387	0	0	419	0	0	826	818	419	816	808	377
Stage 1	-	-	-	-	-	-	429	429	-	379	379	-
Stage 2	-	-	-	-	-	-	397	389	-	437	429	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1166	-	-	1135	-	-	290	309	632	295	314	667
Stage 1	-	-	-	-	-	-	602	582	-	641	613	-
Stage 2	-	-	-	-	-	-	627	607	-	596	582	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1166	-	-	1135	-	-	266	307	632	281	312	667
Mov Cap-2 Maneuver	-	-	-	-	-	-	266	307	-	281	312	-
Stage 1	-	-	-	-	-	-	598	579	-	637	612	-
Stage 2	-	-	-	-	-	-	591	606	-	575	579	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	17.6	16.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	304	1166	-	-	1135	-	-	358
HCM Lane V/C Ratio	0.061	0.005	-	-	0.001	-	-	0.1
HCM Control Delay (s)	17.6	8.1	0	-	8.2	0	-	16.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	385	1	1	337	19	1	16	0	0	25	8
Future Vol, veh/h	5	385	1	1	337	19	1	16	0	0	25	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	418	1	1	366	21	1	17	0	0	27	9

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	387	0	0	419	0	0	826	818	419	816	808	377
Stage 1	-	-	-	-	-	-	429	429	-	379	379	-
Stage 2	-	-	-	-	-	-	397	389	-	437	429	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1166	-	-	1135	-	-	290	309	632	295	314	667
Stage 1	-	-	-	-	-	-	602	582	-	641	613	-
Stage 2	-	-	-	-	-	-	627	607	-	596	582	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1166	-	-	1135	-	-	266	307	632	281	312	667
Mov Cap-2 Maneuver	-	-	-	-	-	-	266	307	-	281	312	-
Stage 1	-	-	-	-	-	-	598	579	-	637	612	-
Stage 2	-	-	-	-	-	-	591	606	-	575	579	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0.1		0		17.6		16.2	
HCM LOS					C		C	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	304	1166	-	-	1135	-	-	358
HCM Lane V/C Ratio	0.061	0.005	-	-	0.001	-	-	0.1
HCM Control Delay (s)	17.6	8.1	0	-	8.2	0	-	16.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	481	8	1	407	19	16	17	0	7	5	11
Future Vol, veh/h	14	481	8	1	407	19	16	17	0	7	5	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	523	9	1	442	21	17	18	0	8	5	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	463	0	0	532	0	0	1021	1023	528	1022	1017	453
Stage 1	-	-	-	-	-	-	558	558	-	455	455	-
Stage 2	-	-	-	-	-	-	463	465	-	567	562	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1093	-	-	1030	-	-	214	235	548	213	237	605
Stage 1	-	-	-	-	-	-	512	510	-	583	567	-
Stage 2	-	-	-	-	-	-	577	561	-	507	508	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1093	-	-	1030	-	-	203	230	548	197	232	605
Mov Cap-2 Maneuver	-	-	-	-	-	-	203	230	-	197	232	-
Stage 1	-	-	-	-	-	-	502	500	-	571	566	-
Stage 2	-	-	-	-	-	-	560	560	-	478	498	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			25			17.8		
HCM LOS							D			C		




Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	1093	-	-	1030	-	-	306
HCM Lane V/C Ratio	0.166	0.014	-	-	0.001	-	-	0.082
HCM Control Delay (s)	25	8.3	0	-	8.5	0	-	17.8
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.3

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	481	8	1	407	19	16	17	0	7	5	11
Future Vol, veh/h	14	481	8	1	407	19	16	17	0	7	5	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	523	9	1	442	21	17	18	0	8	5	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	463	0	0	532	0	0	1021	1023	528	1022	1017	453
Stage 1	-	-	-	-	-	-	558	558	-	455	455	-
Stage 2	-	-	-	-	-	-	463	465	-	567	562	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1093	-	-	1030	-	-	214	235	548	213	237	605
Stage 1	-	-	-	-	-	-	512	510	-	583	567	-
Stage 2	-	-	-	-	-	-	577	561	-	507	508	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1093	-	-	1030	-	-	203	230	548	197	232	605
Mov Cap-2 Maneuver	-	-	-	-	-	-	203	230	-	197	232	-
Stage 1	-	-	-	-	-	-	502	500	-	571	566	-
Stage 2	-	-	-	-	-	-	560	560	-	478	498	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			25			17.8		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	1093	-	-	1030	-	-	306
HCM Lane V/C Ratio	0.166	0.014	-	-	0.001	-	-	0.082
HCM Control Delay (s)	25	8.3	0	-	8.5	0	-	17.8
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.3

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	0	0	39	9	0
Future Vol, veh/h	5	0	0	39	9	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	0	0	42	10	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	52	10	10	0	0
Stage 1	10	-	-	-	-
Stage 2	42	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	954	1068	1603	-	-
Stage 1	1010	-	-	-	-
Stage 2	978	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	954	1068	1603	-	-
Mov Cap-2 Maneuver	954	-	-	-	-
Stage 1	1010	-	-	-	-
Stage 2	978	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1603	-	954	-	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	0	0	39	9	0
Future Vol, veh/h	5	0	0	39	9	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	0	0	42	10	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	52	10	10	0	0
Stage 1	10	-	-	-	-
Stage 2	42	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	954	1068	1603	-	-
Stage 1	1010	-	-	-	-
Stage 2	978	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	954	1068	1603	-	-
Mov Cap-2 Maneuver	954	-	-	-	-
Stage 1	1010	-	-	-	-
Stage 2	978	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1603	-	954	-	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	5	0	0	55	16	0
Future Vol, veh/h	5	0	0	55	16	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	0	0	60	17	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	77	17	17	0	0
Stage 1	17	-	-	-	-
Stage 2	60	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	924	1059	1594	-	-
Stage 1	1003	-	-	-	-
Stage 2	960	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	924	1059	1594	-	-
Mov Cap-2 Maneuver	924	-	-	-	-
Stage 1	1003	-	-	-	-
Stage 2	960	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1594	-	924	-	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	0	-	8.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	5	0	0	55	16	0
Future Vol, veh/h	5	0	0	55	16	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	0	0	60	17	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	77	17	17	0	0
Stage 1	17	-	-	-	-
Stage 2	60	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-
Pot Cap-1 Maneuver	924	1059	1594	-	-
Stage 1	1003	-	-	-	-
Stage 2	960	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	924	1059	1594	-	-
Mov Cap-2 Maneuver	924	-	-	-	-
Stage 1	1003	-	-	-	-
Stage 2	960	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1594	-	924	-	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	0	-	8.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	6	17	0	10	1	22	271	0	7	209	0
Future Vol, veh/h	0	6	17	0	10	1	22	271	0	7	209	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	7	18	0	11	1	24	295	0	8	227	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	592	586	227	599	586	295	227	0	0	295	0	0
Stage 1	243	243	-	343	343	-	-	-	-	-	-	-
Stage 2	349	343	-	256	243	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	416	421	810	412	421	742	1335	-	-	1261	-	-
Stage 1	758	703	-	670	636	-	-	-	-	-	-	-
Stage 2	665	636	-	746	703	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	399	409	810	389	409	742	1335	-	-	1261	-	-
Mov Cap-2 Maneuver	399	409	-	389	409	-	-	-	-	-	-	-
Stage 1	742	698	-	656	623	-	-	-	-	-	-	-
Stage 2	639	623	-	717	698	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.8		13.7		0.6		0.3	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1335	-	-	645	426	1261	-
HCM Lane V/C Ratio	0.018	-	-	0.039	0.028	0.006	-
HCM Control Delay (s)	7.7	0	-	10.8	13.7	7.9	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	6	17	0	10	1	22	271	0	7	209	0
Future Vol, veh/h	0	6	17	0	10	1	22	271	0	7	209	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	7	18	0	11	1	24	295	0	8	227	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	592	586	227	599	586	295	227	0	0	295	0	0
Stage 1	243	243	-	343	343	-	-	-	-	-	-	-
Stage 2	349	343	-	256	243	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	416	421	810	412	421	742	1335	-	-	1261	-	-
Stage 1	758	703	-	670	636	-	-	-	-	-	-	-
Stage 2	665	636	-	746	703	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	399	409	810	389	409	742	1335	-	-	1261	-	-
Mov Cap-2 Maneuver	399	409	-	389	409	-	-	-	-	-	-	-
Stage 1	742	698	-	656	623	-	-	-	-	-	-	-
Stage 2	639	623	-	717	698	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.8		13.7		0.6		0.3	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1335	-	-	645	426	1261	-
HCM Lane V/C Ratio	0.018	-	-	0.039	0.028	0.006	-
HCM Control Delay (s)	7.7	0	-	10.8	13.7	7.9	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	270	207	18	0	155	195	63	1033	2	72	854	243
Future Vol, veh/h	270	207	18	0	155	195	63	1033	2	72	854	243
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	293	225	20	0	168	212	68	1123	2	78	928	264

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2666	2477	1060	2599	2608	1124	1192	0	0	1125	0	0
Stage 1	1216	1216	-	1260	1260	-	-	-	-	-	-	-
Stage 2	1450	1261	-	1339	1348	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	~ 15	~ 30	271	16	~ 24	249	582	-	-	617	-	-
Stage 1	~ 220	253	-	208	241	-	-	-	-	-	-	-
Stage 2	~ 162	240	-	187	218	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 12	271	-	~ 10	249	582	-	-	617	-	-
Mov Cap-2 Maneuver	-	~ 12	-	-	~ 10	-	-	-	-	-	-	-
Stage 1	~ 151	~ 149	-	143	~ 166	-	-	-	-	-	-	-
Stage 2	-	~ 165	-	-	~ 129	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					0.7		0.7	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	582	-	-	-	617	-	-
HCM Lane V/C Ratio	0.118	-	-	-	0.127	-	-
HCM Control Delay (s)	12	0	-	-	11.7	0	-
HCM Lane LOS	B	A	-	-	B	A	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.4	-	-

Notes			
-: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	270	207	18	0	155	195	63	1033	2	72	854	243
Future Vol, veh/h	270	207	18	0	155	195	63	1033	2	72	854	243
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	293	225	20	0	168	212	68	1123	2	78	928	264

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2666	2477	1060	2599	2608	1124	1192	0	0	1125	0	0
Stage 1	1216	1216	-	1260	1260	-	-	-	-	-	-	-
Stage 2	1450	1261	-	1339	1348	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	~ 15	~ 30	271	16	~ 24	249	582	-	-	617	-	-
Stage 1	~ 220	253	-	208	241	-	-	-	-	-	-	-
Stage 2	~ 162	240	-	187	218	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 12	271	-	~ 10	249	582	-	-	617	-	-
Mov Cap-2 Maneuver	-	~ 12	-	-	~ 10	-	-	-	-	-	-	-
Stage 1	~ 151	~ 149	-	143	~ 166	-	-	-	-	-	-	-
Stage 2	-	~ 165	-	-	~ 129	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					0.7		0.7	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	582	-	-	-	617	-	-
HCM Lane V/C Ratio	0.118	-	-	-	0.127	-	-
HCM Control Delay (s)	12	0	-	-	11.7	0	-
HCM Lane LOS	B	A	-	-	B	A	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.4	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh 10.3						
Intersection LOS B						
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	180	72	540		1659	
Demand Flow Rate, veh/h	186	74	556		1709	
Vehicles Circulating, veh/h	1373	630	301		60	
Vehicles Exiting, veh/h	396	227	1258		644	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	16.5	5.4	6.0		11.2	
Approach LOS	C	A	A		B	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	186	74	261	295	803	906
Cap Entry Lane, veh/h	442	831	1023	1099	1277	1349
Entry HV Adj Factor	0.970	0.968	0.973	0.970	0.971	0.971
Flow Entry, veh/h	180	72	254	286	780	879
Cap Entry, veh/h	429	804	995	1067	1240	1310
V/C Ratio	0.421	0.089	0.255	0.268	0.629	0.671
Control Delay, s/veh	16.5	5.4	6.1	5.9	10.8	11.5
LOS	C	A	A	A	B	B
95th %tile Queue, veh	2	0	1	1	5	6

Intersection						
Intersection Delay, s/veh 29.2						
Intersection LOS D						
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	538	380	1193		1270	
Demand Flow Rate, veh/h	555	391	1229		1308	
Vehicles Circulating, veh/h	1036	1529	614		243	
Vehicles Exiting, veh/h	515	314	977		1677	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	51.5	82.8	21.6		10.8	
Approach LOS	F	F	C		B	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	555	391	578	651	615	693
Cap Entry Lane, veh/h	589	387	767	843	1079	1155
Entry HV Adj Factor	0.970	0.972	0.970	0.972	0.971	0.971
Flow Entry, veh/h	538	380	561	632	597	673
Cap Entry, veh/h	571	376	745	819	1048	1122
V/C Ratio	0.943	1.010	0.753	0.773	0.570	0.600
Control Delay, s/veh	51.5	82.8	21.8	21.5	10.7	10.9
LOS	F	F	C	C	B	B
95th %tile Queue, veh	12	12	7	8	4	4

Intersection						
Intersection Delay, s/veh	4.8					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	146	39	584		429	
Demand Flow Rate, veh/h	151	40	601		442	
Vehicles Circulating, veh/h	421	637	66		156	
Vehicles Exiting, veh/h	177	30	506		521	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	5.2	5.0	4.8		4.7	
Approach LOS	A	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.469	0.531	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	151	40	282	319	208	234
Cap Entry Lane, veh/h	993	826	1270	1343	1169	1244
Entry HV Adj Factor	0.970	0.965	0.973	0.970	0.970	0.972
Flow Entry, veh/h	146	39	274	309	202	227
Cap Entry, veh/h	963	797	1236	1302	1134	1209
V/C Ratio	0.152	0.048	0.222	0.238	0.178	0.188
Control Delay, s/veh	5.2	5.0	4.9	4.8	4.8	4.6
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	0	1	1	1	1



Intersection						
Intersection Delay, s/veh	4.8					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	146	39	584		429	
Demand Flow Rate, veh/h	151	40	601		442	
Vehicles Circulating, veh/h	421	637	66		156	
Vehicles Exiting, veh/h	177	30	506		521	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	5.2	5.0	4.8		4.7	
Approach LOS	A	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.469	0.531	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	151	40	282	319	208	234
Cap Entry Lane, veh/h	993	826	1270	1343	1169	1244
Entry HV Adj Factor	0.970	0.965	0.973	0.970	0.970	0.972
Flow Entry, veh/h	146	39	274	309	202	227
Cap Entry, veh/h	963	797	1236	1302	1134	1209
V/C Ratio	0.152	0.048	0.222	0.238	0.178	0.188
Control Delay, s/veh	5.2	5.0	4.9	4.8	4.8	4.6
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	0	1	1	1	1

Intersection						
Intersection Delay, s/veh	64.0					
Intersection LOS	F					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	510	626	1623		984	
Demand Flow Rate, veh/h	525	644	1671		1014	
Vehicles Circulating, veh/h	1254	1257	485		708	
Vehicles Exiting, veh/h	468	899	1294		1193	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	91.9	183.2	36.9		18.5	
Approach LOS	F	F	E		C	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	525	644	785	886	477	537
Cap Entry Lane, veh/h	489	488	864	940	704	778
Entry HV Adj Factor	0.971	0.972	0.972	0.971	0.970	0.972
Flow Entry, veh/h	510	626	763	860	463	522
Cap Entry, veh/h	475	474	839	913	683	756
V/C Ratio	1.074	1.320	0.909	0.942	0.678	0.690
Control Delay, s/veh	91.9	183.2	34.9	38.6	19.0	18.1
LOS	F	F	D	E	C	C
95th %tile Queue, veh	16	28	13	15	5	6

Intersection						
Intersection Delay, s/veh	64.0					
Intersection LOS	F					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	510	626	1623		984	
Demand Flow Rate, veh/h	525	644	1671		1014	
Vehicles Circulating, veh/h	1254	1257	485		708	
Vehicles Exiting, veh/h	468	899	1294		1193	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	91.9	183.2	36.9		18.5	
Approach LOS	F	F	E		C	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	525	644	785	886	477	537
Cap Entry Lane, veh/h	489	488	864	940	704	778
Entry HV Adj Factor	0.971	0.972	0.972	0.971	0.970	0.972
Flow Entry, veh/h	510	626	763	860	463	522
Cap Entry, veh/h	475	474	839	913	683	756
V/C Ratio	1.074	1.320	0.909	0.942	0.678	0.690
Control Delay, s/veh	91.9	183.2	34.9	38.6	19.0	18.1
LOS	F	F	D	E	C	C
95th %tile Queue, veh	16	28	13	15	5	6

Intersection

Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	61	49	3	11	28	62	5	117	25	85	74	27
Future Vol, veh/h	61	49	3	11	28	62	5	117	25	85	74	27
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	66	53	3	12	30	67	5	127	27	92	80	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	8.4	8.9	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	54%	11%	46%
Vol Thru, %	80%	43%	28%	40%
Vol Right, %	17%	3%	61%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	147	113	101	186
LT Vol	5	61	11	85
Through Vol	117	49	28	74
RT Vol	25	3	62	27
Lane Flow Rate	160	123	110	202
Geometry Grp	1	1	1	1
Degree of Util (X)	0.207	0.172	0.141	0.265
Departure Headway (Hd)	4.664	5.03	4.62	4.71
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	765	710	772	760
Service Time	2.715	3.086	2.676	2.758
HCM Lane V/C Ratio	0.209	0.173	0.142	0.266
HCM Control Delay	8.9	9.1	8.4	9.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.6	0.5	1.1

Intersection

Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	61	49	3	11	28	62	5	117	25	85	74	27
Future Vol, veh/h	61	49	3	11	28	62	5	117	25	85	74	27
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	66	53	3	12	30	67	5	127	27	92	80	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	8.4	8.9	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	54%	11%	46%
Vol Thru, %	80%	43%	28%	40%
Vol Right, %	17%	3%	61%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	147	113	101	186
LT Vol	5	61	11	85
Through Vol	117	49	28	74
RT Vol	25	3	62	27
Lane Flow Rate	160	123	110	202
Geometry Grp	1	1	1	1
Degree of Util (X)	0.207	0.172	0.141	0.265
Departure Headway (Hd)	4.664	5.03	4.62	4.71
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	765	710	772	760
Service Time	2.715	3.086	2.676	2.758
HCM Lane V/C Ratio	0.209	0.173	0.142	0.266
HCM Control Delay	8.9	9.1	8.4	9.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.6	0.5	1.1

Intersection												
Intersection Delay, s/veh	24											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	61	384	3	11	289	62	5	118	25	85	88	27
Future Vol, veh/h	61	384	3	11	289	62	5	118	25	85	88	27
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	66	417	3	12	314	67	5	128	27	92	96	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	33	21.7	13.7	15.5
HCM LOS	D	C	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	14%	3%	42%
Vol Thru, %	80%	86%	80%	44%
Vol Right, %	17%	1%	17%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	148	448	362	200
LT Vol	5	61	11	85
Through Vol	118	384	289	88
RT Vol	25	3	62	27
Lane Flow Rate	161	487	393	217
Geometry Grp	1	1	1	1
Degree of Util (X)	0.322	0.834	0.681	0.429
Departure Headway (Hd)	7.213	6.166	6.235	7.105
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	495	584	578	504
Service Time	5.306	4.233	4.308	5.19
HCM Lane V/C Ratio	0.325	0.834	0.68	0.431
HCM Control Delay	13.7	33	21.7	15.5
HCM Lane LOS	B	D	C	C
HCM 95th-tile Q	1.4	8.7	5.2	2.1

Intersection												
Intersection Delay, s/veh	24											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	61	384	3	11	289	62	5	118	25	85	88	27
Future Vol, veh/h	61	384	3	11	289	62	5	118	25	85	88	27
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	66	417	3	12	314	67	5	128	27	92	96	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	33	21.7	13.7	15.5
HCM LOS	D	C	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	14%	3%	42%
Vol Thru, %	80%	86%	80%	44%
Vol Right, %	17%	1%	17%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	148	448	362	200
LT Vol	5	61	11	85
Through Vol	118	384	289	88
RT Vol	25	3	62	27
Lane Flow Rate	161	487	393	217
Geometry Grp	1	1	1	1
Degree of Util (X)	0.322	0.834	0.681	0.429
Departure Headway (Hd)	7.213	6.166	6.235	7.105
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	495	584	578	504
Service Time	5.306	4.233	4.308	5.19
HCM Lane V/C Ratio	0.325	0.834	0.68	0.431
HCM Control Delay	13.7	33	21.7	15.5
HCM Lane LOS	B	D	C	C
HCM 95th-tile Q	1.4	8.7	5.2	2.1

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	153	651	0	0	482	1	2	0	0	3	0	88
Future Vol, veh/h	153	651	0	0	482	1	2	0	0	3	0	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	165	-	-	160	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	166	708	0	0	524	1	2	0	0	3	0	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	525	0	0	708	0	0	1613	1565	708	1564	1564	524
Stage 1	-	-	-	-	-	-	1040	1040	-	524	524	-
Stage 2	-	-	-	-	-	-	573	525	-	1040	1040	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1037	-	-	886	-	-	83	111	433	90	111	551
Stage 1	-	-	-	-	-	-	277	306	-	535	528	-
Stage 2	-	-	-	-	-	-	503	528	-	277	306	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1037	-	-	886	-	-	55	82	433	72	82	551
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	82	-	72	82	-
Stage 1	-	-	-	-	-	-	204	225	-	394	528	-
Stage 2	-	-	-	-	-	-	416	528	-	204	225	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0			73.1			15.2		
HCM LOS							F			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	55	1037	-	-	886	-	-	452
HCM Lane V/C Ratio	0.04	0.16	-	-	-	-	-	0.219
HCM Control Delay (s)	73.1	9.1	0	-	0	-	-	15.2
HCM Lane LOS	F	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.6	-	-	0	-	-	0.8



Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	↕
Traffic Vol, veh/h	153	651	0	0	482	1	2	0	0	3	0	88
Future Vol, veh/h	153	651	0	0	482	1	2	0	0	3	0	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	165	-	-	160	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	166	708	0	0	524	1	2	0	0	3	0	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	525	0	0	708	0	0	1613	1565	708	1564	1564	524
Stage 1	-	-	-	-	-	-	1040	1040	-	524	524	-
Stage 2	-	-	-	-	-	-	573	525	-	1040	1040	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1037	-	-	886	-	-	83	111	433	90	111	551
Stage 1	-	-	-	-	-	-	277	306	-	535	528	-
Stage 2	-	-	-	-	-	-	503	528	-	277	306	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1037	-	-	886	-	-	55	82	433	72	82	551
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	82	-	72	82	-
Stage 1	-	-	-	-	-	-	204	225	-	394	528	-
Stage 2	-	-	-	-	-	-	416	528	-	204	225	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0			73.1			15.2		
HCM LOS							F			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	55	1037	-	-	886	-	-	452
HCM Lane V/C Ratio	0.04	0.16	-	-	-	-	-	0.219
HCM Control Delay (s)	73.1	9.1	0	-	0	-	-	15.2
HCM Lane LOS	F	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.6	-	-	0	-	-	0.8

Intersection												
Int Delay, s/veh	74											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	↕
Traffic Vol, veh/h	482	1571	0	0	2122	1	2	0	0	3	0	347
Future Vol, veh/h	482	1571	0	0	2122	1	2	0	0	3	0	347
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	165	-	-	160	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	524	1708	0	0	2307	1	2	0	0	3	0	377

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2308	0	0	1708	0	0	5252	5064	1708	5063	5063	2307
Stage 1	-	-	-	-	-	-	2756	2756	-	2307	2307	-
Stage 2	-	-	-	-	-	-	2496	2308	-	2756	2756	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	~ 215	-	-	369	-	-	0	1	112	0	1	~ 48
Stage 1	-	-	-	-	-	-	27	42	-	51	72	-
Stage 2	-	-	-	-	-	-	39	72	-	27	42	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 215	-	-	369	-	-	-	0	112	-	0	~ 48
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	27	0	-	51	72	-
Stage 2	-	-	-	-	-	-	-	72	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	163.3	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	- ~ 215	-	-	-	369	-	-	-
HCM Lane V/C Ratio	- 2.437	-	-	-	-	-	-	-
HCM Control Delay (s)	-\$ 695.6	0	-	0	-	-	-	-
HCM Lane LOS	- F	A	-	A	-	-	-	-
HCM 95th %tile Q(veh)	- 43.2	-	-	0	-	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	74											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔		↔			↔	
Traffic Vol, veh/h	482	1571	0	0	2122	1	2	0	0	3	0	347
Future Vol, veh/h	482	1571	0	0	2122	1	2	0	0	3	0	347
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	165	-	-	160	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	524	1708	0	0	2307	1	2	0	0	3	0	377

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2308	0	0	1708	0	0	5252	5064	1708	5063	5063	2307
Stage 1	-	-	-	-	-	-	2756	2756	-	2307	2307	-
Stage 2	-	-	-	-	-	-	2496	2308	-	2756	2756	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	~ 215	-	-	369	-	-	0	1	112	0	1	~ 48
Stage 1	-	-	-	-	-	-	27	42	-	51	72	-
Stage 2	-	-	-	-	-	-	39	72	-	27	42	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	~ 215	-	-	369	-	-	-	0	112	-	0	~ 48
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	27	0	-	51	72	-
Stage 2	-	-	-	-	-	-	-	72	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	163.3	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	- ~ 215	-	-	-	369	-	-	-
HCM Lane V/C Ratio	- 2.437	-	-	-	-	-	-	-
HCM Control Delay (s)	-\$ 695.6	0	-	0	-	-	-	-
HCM Lane LOS	- F	A	-	A	-	-	-	-
HCM 95th %tile Q(veh)	- 43.2	-	-	0	-	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection								
Intersection Delay, s/veh 13.4								
Intersection LOS B								
Approach	EB		WB		NB	SB		
Entry Lanes	2		2		1	2		
Conflicting Circle Lanes	2		2		2	2		
Adj Approach Flow, veh/h	1562		1129		0	449		
Demand Flow Rate, veh/h	1609		1163		0	462		
Vehicles Circulating, veh/h	4		132		1613	1163		
Vehicles Exiting, veh/h	1621		1481		0	132		
Ped Vol Crossing Leg, #/h	0		0		0	0		
Ped Cap Adj	1.000		1.000		1.000	1.000		
Approach Delay, s/veh	9.3		8.0		0.0	41.4		
Approach LOS	A		A		-	E		
Lane	Left	Right	Left	Right	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	LTR	LT	R	
Assumed Moves	LT	TR	LT	TR	LTR	LT	R	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	1.000	0.009	0.991	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.645	4.328	
Entry Flow, veh/h	756	853	547	616	0	4	458	
Cap Entry Lane, veh/h	1345	1415	1195	1269	360	463	528	
Entry HV Adj Factor	0.971	0.971	0.970	0.971	1.000	1.000	0.972	
Flow Entry, veh/h	734	828	531	598	0	4	445	
Cap Entry, veh/h	1306	1374	1160	1233	360	463	513	
V/C Ratio	0.562	0.603	0.458	0.485	0.000	0.009	0.867	
Control Delay, s/veh	9.0	9.5	8.0	8.1	10.0	7.9	41.7	
LOS	A	A	A	A	A	A	E	
95th %tile Queue, veh	4	4	2	3	0	0	9	

Intersection								
Intersection Delay, s/veh 42.2								
Intersection LOS F								
Approach	EB		WB		NB		SB	
Entry Lanes	2		2		1		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	2232		2308		2		380	
Demand Flow Rate, veh/h	2299		2377		2		391	
Vehicles Circulating, veh/h	3		542		2302		2378	
Vehicles Exiting, veh/h	2766		1762		0		541	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	18.6		197.3		18.2		534.6	
Approach LOS	C		F		C		F	
Lane	Left	Right	Left	Right	Left	Left	Right	
Designated Moves	LT	TR	LT	TR	LTR	LT	R	
Assumed Moves	LT	TR	LT	TR	LTR	LT	R	
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	1.000	0.008	0.992	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.645	4.328	
Entry Flow, veh/h	1081	1218	1117	1260	2	3	388	
Cap Entry Lane, veh/h	1346	1417	820	896	201	151	188	
Entry HV Adj Factor	0.970	0.971	0.971	0.971	1.000	1.000	0.972	
Flow Entry, veh/h	1049	1183	1085	1223	2	3	377	
Cap Entry, veh/h	1306	1376	796	870	201	151	183	
V/C Ratio	0.803	0.860	1.362	1.407	0.010	0.020	2.063	
Control Delay, s/veh	16.9	20.2	188.1	205.4	18.2	24.3	538.6	
LOS	C	C	F	F	C	C	F	
95th %tile Queue, veh	9	12	45	53	0	0	29	

Intersection					
Intersection Delay, s/veh	60.6				
Intersection LOS	F				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	977	643	476	511	
Demand Flow Rate, veh/h	1006	662	490	527	
Vehicles Circulating, veh/h	435	576	1050	568	
Vehicles Exiting, veh/h	527	964	391	670	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	95.3	31.5	82.0	10.7	
Approach LOS	F	D	F	B	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	R
RT Channelized					Yield
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	133
Entry Flow, veh/h	1006	662	490	394	806
Cap Entry Lane, veh/h	885	767	473	773	0.971
Entry HV Adj Factor	0.971	0.972	0.971	0.970	129
Flow Entry, veh/h	977	643	476	382	783
Cap Entry, veh/h	860	745	459	750	0.165
V/C Ratio	1.136	0.863	1.036	0.510	6.3
Control Delay, s/veh	95.3	31.5	82.0	12.2	A
LOS	F	D	F	B	1
95th %tile Queue, veh	28	10	14	3	

Intersection					
Intersection Delay, s/veh	60.6				
Intersection LOS	F				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	977	643	476	511	
Demand Flow Rate, veh/h	1006	662	490	527	
Vehicles Circulating, veh/h	435	576	1050	568	
Vehicles Exiting, veh/h	527	964	391	670	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	95.3	31.5	82.0	10.7	
Approach LOS	F	D	F	B	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	R
RT Channelized					Yield
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	133
Entry Flow, veh/h	1006	662	490	394	806
Cap Entry Lane, veh/h	885	767	473	773	0.971
Entry HV Adj Factor	0.971	0.972	0.971	0.970	129
Flow Entry, veh/h	977	643	476	382	783
Cap Entry, veh/h	860	745	459	750	0.165
V/C Ratio	1.136	0.863	1.036	0.510	6.3
Control Delay, s/veh	95.3	31.5	82.0	12.2	A
LOS	F	D	F	B	1
95th %tile Queue, veh	28	10	14	3	

Intersection					
Intersection Delay, s/veh	2469.2				
Intersection LOS	F				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	2262	2703	1150	916	
Demand Flow Rate, veh/h	2330	2783	1184	944	
Vehicles Circulating, veh/h	857	1198	2372	2596	
Vehicles Exiting, veh/h	2517	2358	815	1385	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	1391.0	2654.5	3957.1	2717.5	
Approach LOS	F	F	F	F	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	R
RT Channelized					Yield
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	166
Entry Flow, veh/h	2330	2783	1184	778	106
Cap Entry Lane, veh/h	576	407	123	98	0.971
Entry HV Adj Factor	0.971	0.971	0.971	0.970	161
Flow Entry, veh/h	2262	2703	1150	755	103
Cap Entry, veh/h	559	395	119	95	1.566
V/C Ratio	4.047	6.844	9.641	7.961	369.4
Control Delay, s/veh	1391.0	2654.5	3957.1	3218.3	F
LOS	F	F	F	F	12
95th %tile Queue, veh	217	292	132	86	



Intersection					
Intersection Delay, s/veh	2469.2				
Intersection LOS	F				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	2262	2703	1150	916	
Demand Flow Rate, veh/h	2330	2783	1184	944	
Vehicles Circulating, veh/h	857	1198	2372	2596	
Vehicles Exiting, veh/h	2517	2358	815	1385	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	1391.0	2654.5	3957.1	2717.5	
Approach LOS	F	F	F	F	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	R
RT Channelized					Yield
Lane Util	1.000	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	4.976	166
Entry Flow, veh/h	2330	2783	1184	778	106
Cap Entry Lane, veh/h	576	407	123	98	0.971
Entry HV Adj Factor	0.971	0.971	0.971	0.970	161
Flow Entry, veh/h	2262	2703	1150	755	103
Cap Entry, veh/h	559	395	119	95	1.566
V/C Ratio	4.047	6.844	9.641	7.961	369.4
Control Delay, s/veh	1391.0	2654.5	3957.1	3218.3	F
LOS	F	F	F	F	12
95th %tile Queue, veh	217	292	132	86	

Intersection									
Intersection Delay, s/veh									
12.4									
Intersection LOS									
F									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1577		1600		366		904		
Demand Flow Rate, veh/h	1624		1648		377		931		
Vehicles Circulating, veh/h	928		398		1639		1520		
Vehicles Exiting, veh/h	1523		1618		913		526		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	181.4		24.9		28.9		180.5		
Approach LOS	F		C		D		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.470	0.530	0.470	0.530	0.469	0.531	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	763	861	775	873	177	200	438	493	
Cap Entry Lane, veh/h	575	645	936	1012	299	353	333	390	
Entry HV Adj Factor	0.971	0.971	0.970	0.971	0.973	0.971	0.971	0.972	
Flow Entry, veh/h	741	836	752	848	172	194	425	479	
Cap Entry, veh/h	558	626	908	983	291	342	324	379	
V/C Ratio	1.327	1.334	0.828	0.862	0.592	0.567	1.313	1.264	
Control Delay, s/veh	181.4	181.5	23.9	25.8	31.8	26.3	194.1	168.3	
LOS	F	F	C	D	D	D	F	F	
95th %tile Queue, veh	32	35	10	11	4	3	20	21	

Intersection									
Intersection Delay, s/veh 799.5									
Intersection LOS F									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	2262		2703		1150		916		
Demand Flow Rate, veh/h	2330		2783		1184		944		
Vehicles Circulating, veh/h	857		1198		2372		2596		
Vehicles Exiting, veh/h	2683		2358		815		1385		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	380.4		877.2		1171.1		1139.1		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.470	0.530	0.470	0.530	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	1095	1235	1308	1475	556	628	444	500	
Cap Entry Lane, veh/h	614	685	448	513	152	189	124	156	
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.972	0.970	0.970	0.971	
Flow Entry, veh/h	1063	1199	1270	1432	540	609	431	485	
Cap Entry, veh/h	596	665	435	498	148	183	120	152	
V/C Ratio	1.784	1.802	2.917	2.876	3.651	3.322	3.582	3.200	
Control Delay, s/veh	377.3	383.1	888.3	867.3	1254.8	1096.9	1237.2	1052.0	
LOS	F	F	F	F	F	F	F	F	
95th %tile Queue, veh	65	73	109	121	53	57	43	46	

Intersection			
Intersection Delay, s/veh	11.6		
Intersection LOS	B		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	796	624	337
Demand Flow Rate, veh/h	820	643	347
Vehicles Circulating, veh/h	131	99	728
Vehicles Exiting, veh/h	611	976	223
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	12.7	8.7	14.4
Approach LOS	B	A	B
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	820	643	347
Cap Entry Lane, veh/h	1207	1247	657
Entry HV Adj Factor	0.970	0.971	0.971
Flow Entry, veh/h	796	624	337
Cap Entry, veh/h	1172	1211	638
V/C Ratio	0.679	0.516	0.528
Control Delay, s/veh	12.7	8.7	14.4
LOS	B	A	B
95th %tile Queue, veh	6	3	3

Intersection			
Intersection Delay, s/veh	11.6		
Intersection LOS	B		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	796	624	337
Demand Flow Rate, veh/h	820	643	347
Vehicles Circulating, veh/h	131	99	728
Vehicles Exiting, veh/h	611	976	223
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	12.7	8.7	14.4
Approach LOS	B	A	B
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	820	643	347
Cap Entry Lane, veh/h	1207	1247	657
Entry HV Adj Factor	0.970	0.971	0.971
Flow Entry, veh/h	796	624	337
Cap Entry, veh/h	1172	1211	638
V/C Ratio	0.679	0.516	0.528
Control Delay, s/veh	12.7	8.7	14.4
LOS	B	A	B
95th %tile Queue, veh	6	3	3

Intersection			
Intersection Delay, s/veh	595.3		
Intersection LOS	F		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	2248	2650	475
Demand Flow Rate, veh/h	2315	2729	489
Vehicles Circulating, veh/h	179	188	2069
Vehicles Exiting, veh/h	2738	2370	425
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	470.7	641.9	925.1
Approach LOS	F	F	F
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	2315	2729	489
Cap Entry Lane, veh/h	1150	1139	167
Entry HV Adj Factor	0.971	0.971	0.971
Flow Entry, veh/h	2248	2650	475
Cap Entry, veh/h	1116	1106	162
V/C Ratio	2.014	2.396	2.923
Control Delay, s/veh	470.7	641.9	925.1
LOS	F	F	F
95th %tile Queue, veh	147	198	43

Intersection			
Intersection Delay, s/veh	595.3		
Intersection LOS	F		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	2248	2650	475
Demand Flow Rate, veh/h	2315	2729	489
Vehicles Circulating, veh/h	179	188	2069
Vehicles Exiting, veh/h	2738	2370	425
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	470.7	641.9	925.1
Approach LOS	F	F	F
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	2315	2729	489
Cap Entry Lane, veh/h	1150	1139	167
Entry HV Adj Factor	0.971	0.971	0.971
Flow Entry, veh/h	2248	2650	475
Cap Entry, veh/h	1116	1106	162
V/C Ratio	2.014	2.396	2.923
Control Delay, s/veh	470.7	641.9	925.1
LOS	F	F	F
95th %tile Queue, veh	147	198	43

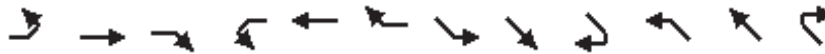
Intersection							
Intersection Delay, s/veh 14.1							
Intersection LOS B							
Approach	EB		WB		NB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	2		2		2		
Adj Approach Flow, veh/h	1623		1535		229		
Demand Flow Rate, veh/h	1671		1581		236		
Vehicles Circulating, veh/h	243		128		1527		
Vehicles Exiting, veh/h	1466		1635		387		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	16.2		11.4		17.5		
Approach LOS	C		B		C		
Lane	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	L	TR	
Assumed Moves	LT	TR	LT	TR	L	TR	
RT Channelized							
Lane Util	0.470	0.530	0.470	0.530	0.542	0.458	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	785	886	743	838	128	108	
Cap Entry Lane, veh/h	1079	1155	1200	1274	331	388	
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.969	0.972	
Flow Entry, veh/h	763	860	721	814	124	105	
Cap Entry, veh/h	1049	1121	1165	1237	321	377	
V/C Ratio	0.727	0.767	0.619	0.658	0.386	0.279	
Control Delay, s/veh	15.6	16.7	11.1	11.6	20.0	14.6	
LOS	C	C	B	B	C	B	
95th %tile Queue, veh	7	8	5	5	2	1	



Intersection						
Intersection Delay, s/veh 79.8						
Intersection LOS F						
Approach	EB		WB		NB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	2248		2650		475	
Demand Flow Rate, veh/h	2315		2729		489	
Vehicles Circulating, veh/h	179		188		2069	
Vehicles Exiting, veh/h	2738		2370		425	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	41.4		100.3		146.6	
Approach LOS	E		F		F	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	TR
Assumed Moves	LT	TR	LT	TR	L	TR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.384	0.616
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	1088	1227	1283	1446	188	301
Cap Entry Lane, veh/h	1145	1220	1135	1210	201	245
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.973	0.970
Flow Entry, veh/h	1056	1191	1245	1404	183	292
Cap Entry, veh/h	1112	1184	1102	1175	196	237
V/C Ratio	0.950	1.006	1.130	1.195	0.934	1.231
Control Delay, s/veh	35.7	46.5	87.7	111.6	97.4	177.4
LOS	E	F	F	F	F	F
95th %tile Queue, veh	17	22	32	41	8	14

HCM 6th Signalized Intersection Summary  
 188: Greenfield Ave & Cumberland Rd

Existing AM Peak  
 12/11/2023



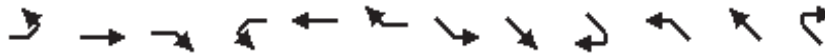
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	↘	↑	↗	↘	↑		↘	↑↑	↗	↘	↑↑	
Traffic Volume (veh/h)	420	176	135	52	105	45	67	653	280	79	509	52
Future Volume (veh/h)	420	176	135	52	105	45	67	653	280	79	509	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	457	191	147	57	114	49	73	710	304	86	553	57
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	524	504	427	456	269	116	350	824	368	318	779	80
Arrive On Green	0.13	0.27	0.27	0.07	0.22	0.22	0.09	0.23	0.23	0.09	0.24	0.24
Sat Flow, veh/h	1767	1856	1572	1767	1231	529	1767	3526	1572	1767	3227	332
Grp Volume(v), veh/h	457	191	147	57	0	163	73	710	304	86	301	309
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1760	1767	1763	1572	1767	1763	1796
Q Serve(g_s), s	7.0	4.6	4.1	1.3	0.0	4.4	1.6	10.6	10.1	1.9	8.6	8.7
Cycle Q Clear(g_c), s	7.0	4.6	4.1	1.3	0.0	4.4	1.6	10.6	10.1	1.9	8.6	8.7
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	524	504	427	456	0	384	350	824	368	318	425	433
V/C Ratio(X)	0.87	0.38	0.34	0.12	0.00	0.42	0.21	0.86	0.83	0.27	0.71	0.71
Avail Cap(c_a), veh/h	524	1249	1059	551	0	1185	424	834	372	636	674	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	16.3	16.1	14.2	0.0	18.5	14.0	20.2	20.0	14.3	19.1	19.1
Incr Delay (d2), s/veh	14.9	0.5	0.5	0.1	0.0	0.7	0.3	9.1	14.1	0.5	2.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	1.7	1.4	0.5	0.0	1.7	0.6	4.8	4.7	0.7	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	16.7	16.6	14.4	0.0	19.3	14.3	29.3	34.1	14.8	21.3	21.3
LnGrp LOS	C	B	B	B	A	B	B	C	C	B	C	C
Approach Vol, veh/h		795			220			1087			696	
Approach Delay, s/veh		26.0			18.0			29.6			20.5	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	18.3	8.1	19.9	9.1	17.8	11.0	17.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	21.0	7.0	37.0	15.0	13.0	7.0	37.0				
Max Q Clear Time (g_c+1), s	10.7	10.7	3.3	6.6	3.9	12.6	9.0	6.4				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.5	0.1	0.2	0.0	0.9				

Intersection Summary

HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary  
188: Greenfield Ave & Cumberland Rd

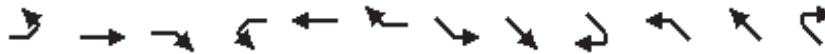
Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	420	176	135	52	105	45	67	653	280	79	509	52
Future Volume (veh/h)	420	176	135	52	105	45	67	653	280	79	509	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	457	191	147	57	114	49	73	710	304	86	553	57
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	524	504	427	456	269	116	350	824	368	318	779	80
Arrive On Green	0.13	0.27	0.27	0.07	0.22	0.22	0.09	0.23	0.23	0.09	0.24	0.24
Sat Flow, veh/h	1767	1856	1572	1767	1231	529	1767	3526	1572	1767	3227	332
Grp Volume(v), veh/h	457	191	147	57	0	163	73	710	304	86	301	309
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1760	1767	1763	1572	1767	1763	1796
Q Serve(g_s), s	7.0	4.6	4.1	1.3	0.0	4.4	1.6	10.6	10.1	1.9	8.6	8.7
Cycle Q Clear(g_c), s	7.0	4.6	4.1	1.3	0.0	4.4	1.6	10.6	10.1	1.9	8.6	8.7
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	524	504	427	456	0	384	350	824	368	318	425	433
V/C Ratio(X)	0.87	0.38	0.34	0.12	0.00	0.42	0.21	0.86	0.83	0.27	0.71	0.71
Avail Cap(c_a), veh/h	524	1249	1059	551	0	1185	424	834	372	636	674	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	16.3	16.1	14.2	0.0	18.5	14.0	20.2	20.0	14.3	19.1	19.1
Incr Delay (d2), s/veh	14.9	0.5	0.5	0.1	0.0	0.7	0.3	9.1	14.1	0.5	2.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	1.7	1.4	0.5	0.0	1.7	0.6	4.8	4.7	0.7	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	16.7	16.6	14.4	0.0	19.3	14.3	29.3	34.1	14.8	21.3	21.3
LnGrp LOS	C	B	B	B	A	B	B	C	C	B	C	C
Approach Vol, veh/h		795			220			1087			696	
Approach Delay, s/veh		26.0			18.0			29.6			20.5	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	18.3	8.1	19.9	9.1	17.8	11.0	17.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	21.0	7.0	37.0	15.0	13.0	7.0	37.0				
Max Q Clear Time (g_c+1), s	10.7	10.7	3.3	6.6	3.9	12.6	9.0	6.4				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.5	0.1	0.2	0.0	0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				25.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
188: Greenfield Ave & Cumberland Rd

Future AM Peak



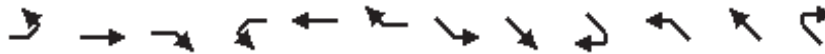
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	↖	↑	↗	↖	↑		↖	↑↑	↗	↖	↑↑	
Traffic Volume (veh/h)	973	533	433	52	215	80	142	1690	593	275	2214	52
Future Volume (veh/h)	973	533	433	52	215	80	142	1690	593	275	2214	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	1058	579	471	57	234	87	154	1837	645	299	2407	57
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	565	726	783	183	146	54	130	1199	535	188	1408	33
Arrive On Green	0.32	0.39	0.39	0.04	0.11	0.11	0.05	0.34	0.34	0.11	0.40	0.40
Sat Flow, veh/h	1767	1856	1572	1767	1290	480	1767	3526	1572	1767	3520	83
Grp Volume(v), veh/h	1058	579	471	57	0	321	154	1837	645	299	1200	1264
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1769	1767	1763	1572	1767	1763	1841
Q Serve(g_s), s	48.0	41.4	32.2	4.2	0.0	17.0	7.0	51.0	51.0	16.0	60.0	60.0
Cycle Q Clear(g_c), s	48.0	41.4	32.2	4.2	0.0	17.0	7.0	51.0	51.0	16.0	60.0	60.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	565	726	783	183	0	201	130	1199	535	188	705	736
V/C Ratio(X)	1.87	0.80	0.60	0.31	0.00	1.60	1.18	1.53	1.21	1.59	1.70	1.72
Avail Cap(c_a), veh/h	565	726	783	191	0	201	130	1199	535	188	705	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	40.4	27.0	55.3	0.0	66.5	40.6	49.5	49.5	67.0	45.0	45.0
Incr Delay (d2), s/veh	398.6	6.3	1.3	1.0	0.0	292.5	135.3	243.9	109.6	287.5	322.2	328.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh	83.4	19.8	12.3	1.9	0.0	23.9	8.0	62.5	36.0	22.2	88.6	93.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	449.6	46.7	28.3	56.2	0.0	359.0	175.9	293.4	159.1	354.5	367.2	373.1
LnGrp LOS	F	D	C	E	A	F	F	F	F	F	F	F
Approach Vol, veh/h		2108			378			2636			2763	
Approach Delay, s/veh		244.8			313.4			253.6			368.5	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	65.0	10.3	63.7	20.0	56.0	52.0	22.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	60.0	7.0	58.0	16.0	51.0	48.0	17.0					
Max Q Clear Time (g_c+19), s	62.0	6.2	43.4	18.0	53.0	50.0	19.0					
Green Ext Time (p_c), s	0.0	0.0	0.0	4.7	0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay		294.4										
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
188: Greenfield Ave & Cumberland Rd

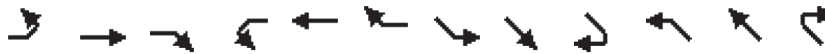
Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	↘	↑	↗	↘	↑		↘	↑↑	↗	↘	↑↑	
Traffic Volume (veh/h)	973	533	433	52	215	80	142	1690	593	275	2214	52
Future Volume (veh/h)	973	533	433	52	215	80	142	1690	593	275	2214	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	1058	579	471	57	234	87	154	1837	645	299	2407	57
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	565	726	783	183	146	54	130	1199	535	188	1408	33
Arrive On Green	0.32	0.39	0.39	0.04	0.11	0.11	0.05	0.34	0.34	0.11	0.40	0.40
Sat Flow, veh/h	1767	1856	1572	1767	1290	480	1767	3526	1572	1767	3520	83
Grp Volume(v), veh/h	1058	579	471	57	0	321	154	1837	645	299	1200	1264
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	0	1769	1767	1763	1572	1767	1763	1841
Q Serve(g_s), s	48.0	41.4	32.2	4.2	0.0	17.0	7.0	51.0	51.0	16.0	60.0	60.0
Cycle Q Clear(g_c), s	48.0	41.4	32.2	4.2	0.0	17.0	7.0	51.0	51.0	16.0	60.0	60.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	565	726	783	183	0	201	130	1199	535	188	705	736
V/C Ratio(X)	1.87	0.80	0.60	0.31	0.00	1.60	1.18	1.53	1.21	1.59	1.70	1.72
Avail Cap(c_a), veh/h	565	726	783	191	0	201	130	1199	535	188	705	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	40.4	27.0	55.3	0.0	66.5	40.6	49.5	49.5	67.0	45.0	45.0
Incr Delay (d2), s/veh	398.6	6.3	1.3	1.0	0.0	292.5	135.3	243.9	109.6	287.5	322.2	328.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh	83.4	19.8	12.3	1.9	0.0	23.9	8.0	62.5	36.0	22.2	88.6	93.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	449.6	46.7	28.3	56.2	0.0	359.0	175.9	293.4	159.1	354.5	367.2	373.1
LnGrp LOS	F	D	C	E	A	F	F	F	F	F	F	F
Approach Vol, veh/h		2108			378			2636			2763	
Approach Delay, s/veh		244.8			313.4			253.6			368.5	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	65.0	10.3	63.7	20.0	56.0	52.0	22.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	60.0	7.0	58.0	16.0	51.0	48.0	17.0					
Max Q Clear Time (g_c+19), s	62.0	6.2	43.4	18.0	53.0	50.0	19.0					
Green Ext Time (p_c), s	0.0	0.0	0.0	4.7	0.0	0.0	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			294.4									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
 188: Greenfield Ave & Cumberland Rd

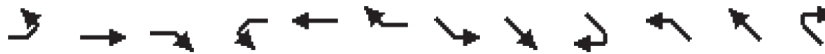
Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	↔↔	↑	↗	↖	↗		↖	↑↑	↗↗	↖↖	↑↑↗	
Traffic Volume (veh/h)	304	134	124	13	369	110	31	1414	890	405	985	17
Future Volume (veh/h)	304	134	124	13	369	110	31	1414	890	405	985	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	330	146	135	14	401	120	34	1537	967	440	1071	18
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	320	605	701	360	347	104	298	1457	1402	411	2555	43
Arrive On Green	0.09	0.33	0.33	0.02	0.25	0.25	0.04	0.41	0.41	0.12	0.50	0.50
Sat Flow, veh/h	3428	1856	1572	1767	1371	410	1767	3526	2768	3428	5131	86
Grp Volume(v), veh/h	330	146	135	14	0	521	34	1537	967	440	705	384
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1767	0	1782	1767	1763	1384	1714	1689	1840
Q Serve(g_s), s	14.0	8.6	7.8	0.9	0.0	38.0	1.6	62.0	39.7	18.0	19.9	19.9
Cycle Q Clear(g_c), s	14.0	8.6	7.8	0.9	0.0	38.0	1.6	62.0	39.7	18.0	19.9	19.9
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	320	605	701	360	0	451	298	1457	1402	411	1682	916
V/C Ratio(X)	1.03	0.24	0.19	0.04	0.00	1.15	0.11	1.05	0.69	1.07	0.42	0.42
Avail Cap(c_a), veh/h	320	605	701	406	0	451	318	1457	1402	411	1682	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.0	37.0	25.2	39.9	0.0	56.0	23.4	44.0	28.1	66.0	23.9	23.9
Incr Delay (d2), s/veh	58.6	0.2	0.1	0.0	0.0	92.0	0.2	39.5	1.4	64.1	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	4.0	3.0	0.4	0.0	28.5	0.7	34.2	13.2	11.5	7.9	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	126.6	37.2	25.3	39.9	0.0	148.0	23.6	83.5	29.5	130.1	24.1	24.2
LnGrp LOS	F	D	C	D		F	C	F	C	F	C	C
Approach Vol, veh/h		611			535			2538			1529	
Approach Delay, s/veh		82.9			145.1			62.1			54.6	
Approach LOS		F			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	79.7	7.1	53.9	22.0	67.0	18.0	43.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	73.0	7.0	45.0	18.0	62.0	14.0	38.0					
Max Q Clear Time (g_c+1/3), s	21.9	2.9	10.6	20.0	64.0	16.0	40.0					
Green Ext Time (p_c), s	0.0	8.5	0.0	1.2	0.0	0.0	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				70.9								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary  
188: Greenfield Ave & Cumberland Rd

Future PM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	↔↔	↑	↗	↖	↖	↗	↖	↑↑	↗↗	↖↖	↖↖	↗↗
Traffic Volume (veh/h)	973	533	433	52	215	80	142	1690	593	275	2214	52
Future Volume (veh/h)	973	533	433	52	215	80	142	1690	593	275	2214	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	1058	579	471	57	234	87	154	1837	645	299	2407	57
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	846	639	657	148	181	67	130	1481	1845	251	2274	54
Arrive On Green	0.25	0.34	0.34	0.04	0.14	0.14	0.05	0.42	0.42	0.07	0.45	0.45
Sat Flow, veh/h	3428	1856	1572	1767	1290	480	1767	3526	2768	3428	5091	120
Grp Volume(v), veh/h	1058	579	471	57	0	321	154	1837	645	299	1594	870
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1767	0	1769	1767	1763	1384	1714	1689	1834
Q Serve(g_s), s	37.0	44.6	37.4	4.1	0.0	21.0	7.0	63.0	15.2	11.0	67.0	67.0
Cycle Q Clear(g_c), s	37.0	44.6	37.4	4.1	0.0	21.0	7.0	63.0	15.2	11.0	67.0	67.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	846	639	657	148	0	248	130	1481	1845	251	1508	819
V/C Ratio(X)	1.25	0.91	0.72	0.39	0.00	1.30	1.18	1.24	0.35	1.19	1.06	1.06
Avail Cap(c_a), veh/h	846	639	657	156	0	248	130	1481	1845	251	1508	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	46.9	36.3	52.5	0.0	64.5	40.8	43.5	10.9	69.5	41.5	41.5
Incr Delay (d2), s/veh	122.8	16.6	3.8	1.6	0.0	159.7	135.3	114.2	0.1	117.7	39.7	49.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	23.1	14.9	1.9	0.0	20.4	7.6	50.1	4.6	8.9	35.2	40.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	179.3	63.5	40.1	54.2	0.0	224.2	176.1	157.7	11.0	187.2	81.2	90.9
LnGrp LOS	F	E	D	D		F	F	F	B	F	F	F
Approach Vol, veh/h		2108			378			2636			2763	
Approach Delay, s/veh		116.4			198.6			122.9			95.7	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	72.0	10.3	56.7	15.0	68.0	41.0	26.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	67.0	7.0	51.0	11.0	63.0	37.0	21.0					
Max Q Clear Time (g_c+19), s	69.0	6.1	46.6	13.0	65.0	39.0	23.0					
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			115.3									
HCM 6th LOS			F									

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	0	107	0	0	0	249	285	0	0	160	35
Future Vol, veh/h	40	0	107	0	0	0	249	285	0	0	160	35
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	43	0	116	0	0	0	271	310	0	0	174	38

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1045	1045	193	1103	1064	310	212	0	0	310	0	0
Stage 1	193	193	-	852	852	-	-	-	-	-	-	-
Stage 2	852	852	-	251	212	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	206	228	846	188	222	728	1352	-	-	1245	-	-
Stage 1	806	739	-	353	375	-	-	-	-	-	-	-
Stage 2	353	375	-	751	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	167	173	846	132	168	728	1352	-	-	1245	-	-
Mov Cap-2 Maneuver	167	173	-	132	168	-	-	-	-	-	-	-
Stage 1	611	739	-	268	284	-	-	-	-	-	-	-
Stage 2	268	284	-	648	725	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.7	0	3.9	0
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1352	-	-	402	-	1245	-
HCM Lane V/C Ratio	0.2	-	-	0.397	-	-	-
HCM Control Delay (s)	8.3	0	-	19.7	0	0	-
HCM Lane LOS	A	A	-	C	A	A	-
HCM 95th %tile Q(veh)	0.7	-	-	1.9	-	0	-



Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	0	107	0	0	0	249	285	0	0	160	35
Future Vol, veh/h	40	0	107	0	0	0	249	285	0	0	160	35
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	43	0	116	0	0	0	271	310	0	0	174	38

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1045	1045	193	1103	1064	310	212	0	0	310	0	0
Stage 1	193	193	-	852	852	-	-	-	-	-	-	-
Stage 2	852	852	-	251	212	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	206	228	846	188	222	728	1352	-	-	1245	-	-
Stage 1	806	739	-	353	375	-	-	-	-	-	-	-
Stage 2	353	375	-	751	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	167	173	846	132	168	728	1352	-	-	1245	-	-
Mov Cap-2 Maneuver	167	173	-	132	168	-	-	-	-	-	-	-
Stage 1	611	739	-	268	284	-	-	-	-	-	-	-
Stage 2	268	284	-	648	725	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	19.7		0		3.9		0	
HCM LOS	C		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1352	-	-	402	-	1245	-
HCM Lane V/C Ratio	0.2	-	-	0.397	-	-	-
HCM Control Delay (s)	8.3	0	-	19.7	0	0	-
HCM Lane LOS	A	A	-	C	A	A	-
HCM 95th %tile Q(veh)	0.7	-	-	1.9	-	0	-

Intersection												
Int Delay, s/veh	97											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	0	271	0	0	0	608	303	0	0	161	35
Future Vol, veh/h	40	0	271	0	0	0	608	303	0	0	161	35
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	43	0	295	0	0	0	661	329	0	0	175	38

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1845	1845	194	1993	1864	329	213	0	0	329	0	0
Stage 1	194	194	-	1651	1651	-	-	-	-	-	-	-
Stage 2	1651	1651	-	342	213	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	57	74	845	45	72	710	1351	-	-	1225	-	-
Stage 1	805	738	-	124	155	-	-	-	-	-	-	-
Stage 2	124	155	-	671	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 30	30	845	15	29	710	1351	-	-	1225	-	-
Mov Cap-2 Maneuver	~ 30	30	-	15	29	-	-	-	-	-	-	-
Stage 1	323	738	-	50	62	-	-	-	-	-	-	-
Stage 2	50	62	-	437	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	422.2	0	6.8	0
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1351	-	-	188	-	1225	-
HCM Lane V/C Ratio	0.489	-	-	1.798	-	-	-
HCM Control Delay (s)	10.2	0	-	422.2	0	0	-
HCM Lane LOS	B	A	-	F	A	A	-
HCM 95th %tile Q(veh)	2.8	-	-	24	-	0	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	97											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	0	271	0	0	0	608	303	0	0	161	35
Future Vol, veh/h	40	0	271	0	0	0	608	303	0	0	161	35
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	43	0	295	0	0	0	661	329	0	0	175	38

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1845	1845	194	1993	1864	329	213	0	0	329	0	0
Stage 1	194	194	-	1651	1651	-	-	-	-	-	-	-
Stage 2	1651	1651	-	342	213	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	57	74	845	45	72	710	1351	-	-	1225	-	-
Stage 1	805	738	-	124	155	-	-	-	-	-	-	-
Stage 2	124	155	-	671	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 30	30	845	15	29	710	1351	-	-	1225	-	-
Mov Cap-2 Maneuver	~ 30	30	-	15	29	-	-	-	-	-	-	-
Stage 1	323	738	-	50	62	-	-	-	-	-	-	-
Stage 2	50	62	-	437	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s\$	422.2	0	6.8	0
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1351	-	-	188	-	1225	-
HCM Lane V/C Ratio	0.489	-	-	1.798	-	-	-
HCM Control Delay (s)	10.2	0	-	\$ 422.2	0	0	-
HCM Lane LOS	B	A	-	F	A	A	-
HCM 95th %tile Q(veh)	2.8	-	-	24	-	0	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection				
Intersection Delay, s/veh	6.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	467	0	198	287
Demand Flow Rate, veh/h	481	0	204	295
Vehicles Circulating, veh/h	280	258	54	74
Vehicles Exiting, veh/h	89	0	707	184
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.9	0.0	4.1	4.9
Approach LOS	A	-	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	481	0	204	295
Cap Entry Lane, veh/h	1037	1061	1306	1280
Entry HV Adj Factor	0.971	1.000	0.972	0.972
Flow Entry, veh/h	467	0	198	287
Cap Entry, veh/h	1007	1061	1269	1244
V/C Ratio	0.464	0.000	0.156	0.231
Control Delay, s/veh	8.9	3.4	4.1	4.9
LOS	A	A	A	A
95th %tile Queue, veh	3	0	1	1

Intersection				
Intersection Delay, s/veh	12.6			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	338	0	990	213
Demand Flow Rate, veh/h	348	0	1020	219
Vehicles Circulating, veh/h	180	1064	44	681
Vehicles Exiting, veh/h	720	0	484	383
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.1	0.0	15.5	9.5
Approach LOS	A	-	C	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	348	0	1020	219
Cap Entry Lane, veh/h	1148	466	1319	689
Entry HV Adj Factor	0.971	1.000	0.971	0.971
Flow Entry, veh/h	338	0	990	213
Cap Entry, veh/h	1115	466	1281	669
V/C Ratio	0.303	0.000	0.773	0.318
Control Delay, s/veh	6.1	7.7	15.5	9.5
LOS	A	A	C	A
95th %tile Queue, veh	1	0	8	1

Intersection						
Int Delay, s/veh	7.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	264	68	18	120	43
Future Vol, veh/h	10	264	68	18	120	43
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	287	74	20	130	47

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	391	84	0	0	94	0
Stage 1	84	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	611	972	-	-	1494	-
Stage 1	937	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	557	972	-	-	1494	-
Mov Cap-2 Maneuver	557	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	5.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	946	1494
HCM Lane V/C Ratio	-	-	0.315	0.087
HCM Control Delay (s)	-	-	10.5	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0.3

Intersection						
Int Delay, s/veh	7.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	264	68	18	120	43
Future Vol, veh/h	10	264	68	18	120	43
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	287	74	20	130	47

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	391	84	0	0	94	0
Stage 1	84	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	611	972	-	-	1494	-
Stage 1	937	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	557	972	-	-	1494	-
Mov Cap-2 Maneuver	557	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	5.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	946	1494
HCM Lane V/C Ratio	-	-	0.315	0.087
HCM Control Delay (s)	-	-	10.5	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0.3

Intersection						
Int Delay, s/veh	13.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	10	623	68	18	284	44
Future Vol, veh/h	10	623	68	18	284	44
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	677	74	20	309	48

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	750	84	0	0	94	0
Stage 1	84	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	378	972	-	-	1494	-
Stage 1	937	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	298	972	-	-	1494	-
Mov Cap-2 Maneuver	298	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	401	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.6	0	7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	938	1494
HCM Lane V/C Ratio	-	-	0.734	0.207
HCM Control Delay (s)	-	-	18.6	8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	6.8	0.8



Intersection						
Int Delay, s/veh	13.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	623	68	18	284	44
Future Vol, veh/h	10	623	68	18	284	44
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	677	74	20	309	48

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	750	84	0	0	94
Stage 1	84	-	-	-	-
Stage 2	666	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	378	972	-	-	1494
Stage 1	937	-	-	-	-
Stage 2	509	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	298	972	-	-	1494
Mov Cap-2 Maneuver	298	-	-	-	-
Stage 1	937	-	-	-	-
Stage 2	401	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.6	0	7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	938	1494
HCM Lane V/C Ratio	-	-	0.734	0.207
HCM Control Delay (s)	-	-	18.6	8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	6.8	0.8

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶	↷	↶	↶↶	↶↷	
Traffic Vol, veh/h	26	73	52	1431	895	9
Future Vol, veh/h	26	73	52	1431	895	9
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	125	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	28	79	57	1555	973	10

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1870	492	983	0	-	0
Stage 1	978	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	63	520	692	-	-	-
Stage 1	323	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	58	520	692	-	-	-
Mov Cap-2 Maneuver	58	-	-	-	-	-
Stage 1	297	-	-	-	-	-
Stage 2	358	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40.1	0.4	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	692	-	58	520	-	-
HCM Lane V/C Ratio	0.082	-	0.487	0.153	-	-
HCM Control Delay (s)	10.7	-	115.8	13.2	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	0.5	-	-

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↑↑	↑↑	
Traffic Vol, veh/h	26	73	52	1431	895	9
Future Vol, veh/h	26	73	52	1431	895	9
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	125	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	28	79	57	1555	973	10

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1870	492	983	0	-	0
Stage 1	978	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	63	520	692	-	-	-
Stage 1	323	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	58	520	692	-	-	-
Mov Cap-2 Maneuver	58	-	-	-	-	-
Stage 1	297	-	-	-	-	-
Stage 2	358	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40.1	0.4	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	692	-	58	520	-	-
HCM Lane V/C Ratio	0.082	-	0.487	0.153	-	-
HCM Control Delay (s)	10.7	-	115.8	13.2	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	0.5	-	-

Intersection						
Int Delay, s/veh	104					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↵	↶	↵	↑↑	↑↑	
Traffic Vol, veh/h	35	267	325	2200	1191	20
Future Vol, veh/h	35	267	325	2200	1191	20
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	125	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	38	290	353	2391	1295	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	3208	659	1317	0	-	0
Stage 1	1306	-	-	-	-	-
Stage 2	1902	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	~ 7	404	516	-	-	-
Stage 1	216	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 2	404	516	-	-	-
Mov Cap-2 Maneuver	~ 2	-	-	-	-	-
Stage 1	68	-	-	-	-	-
Stage 2	102	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, \$	1362.9	3.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	516	-	2	404	-	-
HCM Lane V/C Ratio	0.685	-	19.022	0.718	-	-
HCM Control Delay (s)	25.8	\$	11503.5	33.6	-	-
HCM Lane LOS	D	-	F	D	-	-
HCM 95th %tile Q(veh)	5.2	-	6.7	5.5	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	104					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↵	↶	↵	↑↑	↑↑	
Traffic Vol, veh/h	35	267	325	2200	1191	20
Future Vol, veh/h	35	267	325	2200	1191	20
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	125	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	38	290	353	2391	1295	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	3208	659	1317	0	-	0
Stage 1	1306	-	-	-	-	-
Stage 2	1902	-	-	-	-	-
Critical Hdwy	6.86	6.96	4.16	-	-	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	~ 7	404	516	-	-	-
Stage 1	216	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 2	404	516	-	-	-
Mov Cap-2 Maneuver	~ 2	-	-	-	-	-
Stage 1	68	-	-	-	-	-
Stage 2	102	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, \$	1362.9	3.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	516	-	2	404	-	-
HCM Lane V/C Ratio	0.685	-	19.022	0.718	-	-
HCM Control Delay (s)	25.8	\$	11503.5	33.6	-	-
HCM Lane LOS	D	-	F	D	-	-
HCM 95th %tile Q(veh)	5.2	-	6.7	5.5	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection					
Intersection Delay, s/veh 22.6					
Intersection LOS C					
Approach	EB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	326	784		1748	
Demand Flow Rate, veh/h	335	807		1800	
Vehicles Circulating, veh/h	1762	15		152	
Vehicles Exiting, veh/h	190	2082		670	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	104.4	5.3		15.1	
Approach LOS	F	A		C	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	335	379	428	846	954
Cap Entry Lane, veh/h	318	1331	1402	1174	1248
Entry HV Adj Factor	0.973	0.972	0.971	0.971	0.971
Flow Entry, veh/h	326	368	415	821	926
Cap Entry, veh/h	309	1294	1361	1140	1212
V/C Ratio	1.055	0.285	0.305	0.721	0.764
Control Delay, s/veh	104.4	5.3	5.3	14.4	15.7
LOS	F	A	A	B	C
95th %tile Queue, veh	12	1	1	7	8

Intersection					
Intersection Delay, s/veh44.2					
Intersection LOS E					
Approach	EB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	328	2744		1317	
Demand Flow Rate, veh/h	338	2827		1357	
Vehicles Circulating, veh/h	1334	39		364	
Vehicles Exiting, veh/h	387	1633		2502	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	31.6	60.0		14.4	
Approach LOS	D	F		B	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	338	1329	1498	638	719
Cap Entry Lane, veh/h	457	1302	1374	966	1042
Entry HV Adj Factor	0.970	0.971	0.971	0.970	0.971
Flow Entry, veh/h	328	1290	1454	619	698
Cap Entry, veh/h	443	1264	1334	937	1012
V/C Ratio	0.740	1.021	1.090	0.661	0.690
Control Delay, s/veh	31.6	48.9	69.7	14.3	14.5
LOS	D	F	F	B	B
95th %tile Queue, veh	6	24	32	5	6

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	↕
Traffic Vol, veh/h	6	5	17	31	9	18	15	311	91	11	255	10
Future Vol, veh/h	6	5	17	31	9	18	15	311	91	11	255	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	-	-	-	-	-	-	-	-	106
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	5	18	34	10	20	16	338	99	12	277	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	736	770	277	738	732	388	288	0	0	437	0	0
Stage 1	301	301	-	420	420	-	-	-	-	-	-	-
Stage 2	435	469	-	318	312	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	333	330	759	332	347	658	1268	-	-	1117	-	-
Stage 1	706	663	-	609	588	-	-	-	-	-	-	-
Stage 2	598	559	-	691	656	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	309	320	759	312	337	658	1268	-	-	1117	-	-
Mov Cap-2 Maneuver	309	320	-	312	337	-	-	-	-	-	-	-
Stage 1	694	654	-	599	578	-	-	-	-	-	-	-
Stage 2	561	549	-	660	647	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.7		16.4		0.3		0.3	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1268	-	-	314	759	378	1117	-	-
HCM Lane V/C Ratio	0.013	-	-	0.038	0.024	0.167	0.011	-	-
HCM Control Delay (s)	7.9	0	-	16.9	9.9	16.4	8.3	0	-
HCM Lane LOS	A	A	-	C	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.6	0	-	-



Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	↕
Traffic Vol, veh/h	6	5	17	31	9	18	15	311	91	11	255	10
Future Vol, veh/h	6	5	17	31	9	18	15	311	91	11	255	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	-	-	-	-	-	-	-	-	106
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	5	18	34	10	20	16	338	99	12	277	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	736	770	277	738	732	388	288	0	0	437	0	0
Stage 1	301	301	-	420	420	-	-	-	-	-	-	-
Stage 2	435	469	-	318	312	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	333	330	759	332	347	658	1268	-	-	1117	-	-
Stage 1	706	663	-	609	588	-	-	-	-	-	-	-
Stage 2	598	559	-	691	656	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	309	320	759	312	337	658	1268	-	-	1117	-	-
Mov Cap-2 Maneuver	309	320	-	312	337	-	-	-	-	-	-	-
Stage 1	694	654	-	599	578	-	-	-	-	-	-	-
Stage 2	561	549	-	660	647	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.7		16.4		0.3		0.3	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1268	-	-	314	759	378	1117	-	-
HCM Lane V/C Ratio	0.013	-	-	0.038	0.024	0.167	0.011	-	-
HCM Control Delay (s)	7.9	0	-	16.9	9.9	16.4	8.3	0	-
HCM Lane LOS	A	A	-	C	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.6	0	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	↕
Traffic Vol, veh/h	6	9	18	46	11	18	21	391	107	11	265	10
Future Vol, veh/h	6	9	18	46	11	18	21	391	107	11	265	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	-	-	-	-	-	-	-	-	106
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	10	20	50	12	20	23	425	116	12	288	11

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	857	899	288	862	852	483	299	0	0	541	0	0
Stage 1	312	312	-	529	529	-	-	-	-	-	-	-
Stage 2	545	587	-	333	323	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	276	278	749	274	296	582	1256	-	-	1023	-	-
Stage 1	696	656	-	531	526	-	-	-	-	-	-	-
Stage 2	521	495	-	679	649	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	250	267	749	251	284	582	1256	-	-	1023	-	-
Mov Cap-2 Maneuver	250	267	-	251	284	-	-	-	-	-	-	-
Stage 1	677	647	-	517	512	-	-	-	-	-	-	-
Stage 2	478	482	-	642	640	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.4		21.6		0.3		0.3	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1256	-	-	260	749	297	1023	-	-
HCM Lane V/C Ratio	0.018	-	-	0.063	0.026	0.274	0.012	-	-
HCM Control Delay (s)	7.9	0	-	19.8	9.9	21.6	8.6	0	-
HCM Lane LOS	A	A	-	C	A	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	1.1	0	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	↕
Traffic Vol, veh/h	6	9	18	46	11	18	21	391	107	11	265	10
Future Vol, veh/h	6	9	18	46	11	18	21	391	107	11	265	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	-	-	-	-	-	-	-	-	106
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	10	20	50	12	20	23	425	116	12	288	11

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	857	899	288	862	852	483	299	0	0	541	0	0
Stage 1	312	312	-	529	529	-	-	-	-	-	-	-
Stage 2	545	587	-	333	323	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	276	278	749	274	296	582	1256	-	-	1023	-	-
Stage 1	696	656	-	531	526	-	-	-	-	-	-	-
Stage 2	521	495	-	679	649	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	250	267	749	251	284	582	1256	-	-	1023	-	-
Mov Cap-2 Maneuver	250	267	-	251	284	-	-	-	-	-	-	-
Stage 1	677	647	-	517	512	-	-	-	-	-	-	-
Stage 2	478	482	-	642	640	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.4		21.6		0.3		0.3	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1256	-	-	260	749	297	1023	-	-
HCM Lane V/C Ratio	0.018	-	-	0.063	0.026	0.274	0.012	-	-
HCM Control Delay (s)	7.9	0	-	19.8	9.9	21.6	8.6	0	-
HCM Lane LOS	A	A	-	C	A	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	1.1	0	-	-

HCM 6th Signalized Intersection Summary  
 193: Hazel Dell Rd & Noble Crossing Pkwy/Midland Ln

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	71	9	63	26	2	108	71	1264	52	75	831	31
Future Volume (veh/h)	71	9	63	26	2	108	71	1264	52	75	831	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	77	10	68	28	2	117	77	1374	57	82	903	34
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	361	41	282	386	4	258	373	1499	734	262	1506	793
Arrive On Green	0.08	0.20	0.20	0.04	0.17	0.17	0.08	0.43	0.43	0.08	0.43	0.43
Sat Flow, veh/h	1767	206	1398	1767	26	1550	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	77	0	78	28	0	119	77	1374	57	82	903	34
Grp Sat Flow(s),veh/h/ln	1767	0	1604	1767	0	1577	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	2.4	0.0	2.9	0.9	0.0	4.8	1.6	26.2	1.4	1.7	14.1	0.8
Cycle Q Clear(g_c), s	2.4	0.0	2.9	0.9	0.0	4.8	1.6	26.2	1.4	1.7	14.1	0.8
Prop In Lane	1.00		0.87	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	0	323	386	0	262	373	1499	734	262	1506	793
V/C Ratio(X)	0.21	0.00	0.24	0.07	0.00	0.45	0.21	0.92	0.08	0.31	0.60	0.04
Avail Cap(c_a), veh/h	399	0	323	485	0	266	411	1534	750	296	1534	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	23.9	22.7	0.0	26.8	10.8	19.3	10.5	15.1	15.7	9.0
Incr Delay (d2), s/veh	0.3	0.0	0.4	0.1	0.0	1.2	0.3	8.9	0.0	0.7	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.1	0.4	0.0	1.8	0.5	10.7	0.5	0.6	4.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	24.3	22.8	0.0	28.0	11.1	28.2	10.5	15.8	16.3	9.0
LnGrp LOS	C	A	C	C	A	C	B	C	B	B	B	A
Approach Vol, veh/h		155			147			1508			1019	
Approach Delay, s/veh		22.9			27.0			26.7			16.1	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	35.3	7.0	19.4	9.5	35.4	9.5	16.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	31.0	7.0	12.0	7.0	31.0	7.0	12.0				
Max Q Clear Time (g_c+I1), s	3.7	28.2	2.9	4.9	3.6	16.1	4.4	6.8				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.2	0.0	5.2	0.0	0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				22.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
 193: Hazel Dell Rd & Noble Crossing Pkwy/Midland Ln

Existing PM Peak  
 12/11/2023

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	9	63	26	2	108	71	1264	52	75	831	31
Future Volume (veh/h)	71	9	63	26	2	108	71	1264	52	75	831	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	77	10	68	28	2	117	77	1374	57	82	903	34
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	361	41	282	386	4	258	373	1499	734	262	1506	793
Arrive On Green	0.08	0.20	0.20	0.04	0.17	0.17	0.08	0.43	0.43	0.08	0.43	0.43
Sat Flow, veh/h	1767	206	1398	1767	26	1550	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	77	0	78	28	0	119	77	1374	57	82	903	34
Grp Sat Flow(s),veh/h/ln	1767	0	1604	1767	0	1577	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	2.4	0.0	2.9	0.9	0.0	4.8	1.6	26.2	1.4	1.7	14.1	0.8
Cycle Q Clear(g_c), s	2.4	0.0	2.9	0.9	0.0	4.8	1.6	26.2	1.4	1.7	14.1	0.8
Prop In Lane	1.00		0.87	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	0	323	386	0	262	373	1499	734	262	1506	793
V/C Ratio(X)	0.21	0.00	0.24	0.07	0.00	0.45	0.21	0.92	0.08	0.31	0.60	0.04
Avail Cap(c_a), veh/h	399	0	323	485	0	266	411	1534	750	296	1534	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	23.9	22.7	0.0	26.8	10.8	19.3	10.5	15.1	15.7	9.0
Incr Delay (d2), s/veh	0.3	0.0	0.4	0.1	0.0	1.2	0.3	8.9	0.0	0.7	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.1	0.4	0.0	1.8	0.5	10.7	0.5	0.6	4.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	24.3	22.8	0.0	28.0	11.1	28.2	10.5	15.8	16.3	9.0
LnGrp LOS	C	A	C	C	A	C	B	C	B	B	B	A
Approach Vol, veh/h		155			147			1508			1019	
Approach Delay, s/veh		22.9			27.0			26.7			16.1	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	35.3	7.0	19.4	9.5	35.4	9.5	16.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	31.0	7.0	12.0	7.0	31.0	7.0	12.0				
Max Q Clear Time (g_c+I1), s	3.7	28.2	2.9	4.9	3.6	16.1	4.4	6.8				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.2	0.0	5.2	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay			22.7									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary  
 193: Hazel Dell Rd & Noble Crossing Pkwy/Midland Ln

Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	9	63	26	2	108	71	2306	52	75	1321	31
Future Volume (veh/h)	71	9	63	26	2	108	71	2306	52	75	1321	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	77	10	68	28	2	117	77	2507	57	82	1436	34
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	137	19	132	168	2	124	309	2495	1164	128	2496	1187
Arrive On Green	0.05	0.09	0.09	0.03	0.08	0.08	0.04	0.71	0.71	0.05	0.71	0.71
Sat Flow, veh/h	1767	206	1398	1767	26	1550	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	77	0	78	28	0	119	77	2507	57	82	1436	34
Grp Sat Flow(s),veh/h/ln	1767	0	1604	1767	0	1577	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	5.9	0.0	6.9	2.1	0.0	11.2	1.7	106.0	1.5	2.7	30.0	0.8
Cycle Q Clear(g_c), s	5.9	0.0	6.9	2.1	0.0	11.2	1.7	106.0	1.5	2.7	30.0	0.8
Prop In Lane	1.00		0.87	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	137	0	152	168	0	126	309	2495	1164	128	2496	1187
V/C Ratio(X)	0.56	0.00	0.51	0.17	0.00	0.94	0.25	1.00	0.05	0.64	0.58	0.03
Avail Cap(c_a), veh/h	137	0	152	194	0	126	312	2495	1164	131	2496	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	0.0	64.5	60.0	0.0	68.5	8.6	21.9	5.3	47.1	10.8	4.6
Incr Delay (d2), s/veh	5.1	0.0	2.9	0.5	0.0	62.2	0.4	19.2	0.0	9.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	3.0	1.0	0.0	6.7	0.6	43.4	0.5	2.5	10.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	0.0	67.4	60.5	0.0	130.8	9.0	41.0	5.3	56.9	11.1	4.6
LnGrp LOS	E	A	E	E	A	F	A	F	A	E	B	A
Approach Vol, veh/h		155			147			2641			1552	
Approach Delay, s/veh		66.3			117.4			39.3			13.4	
Approach LOS		E			F			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	111.0	8.8	19.2	10.7	111.1	11.0	17.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	106.0	7.0	12.0	7.0	106.0	7.0	12.0				
Max Q Clear Time (g_c+I1), s	4.7	108.0	4.1	8.9	3.7	32.0	7.9	13.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.0	15.4	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			33.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary  
 193: Hazel Dell Rd & Noble Crossing Pkwy/Midland Ln

Future PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	9	63	26	2	108	71	2306	52	75	1321	31
Future Volume (veh/h)	71	9	63	26	2	108	71	2306	52	75	1321	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	77	10	68	28	2	117	77	2507	57	82	1436	34
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	137	19	132	168	2	124	309	2495	1164	128	2496	1187
Arrive On Green	0.05	0.09	0.09	0.03	0.08	0.08	0.04	0.71	0.71	0.05	0.71	0.71
Sat Flow, veh/h	1767	206	1398	1767	26	1550	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	77	0	78	28	0	119	77	2507	57	82	1436	34
Grp Sat Flow(s),veh/h/ln	1767	0	1604	1767	0	1577	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	5.9	0.0	6.9	2.1	0.0	11.2	1.7	106.0	1.5	2.7	30.0	0.8
Cycle Q Clear(g_c), s	5.9	0.0	6.9	2.1	0.0	11.2	1.7	106.0	1.5	2.7	30.0	0.8
Prop In Lane	1.00		0.87	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	137	0	152	168	0	126	309	2495	1164	128	2496	1187
V/C Ratio(X)	0.56	0.00	0.51	0.17	0.00	0.94	0.25	1.00	0.05	0.64	0.58	0.03
Avail Cap(c_a), veh/h	137	0	152	194	0	126	312	2495	1164	131	2496	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	0.0	64.5	60.0	0.0	68.5	8.6	21.9	5.3	47.1	10.8	4.6
Incr Delay (d2), s/veh	5.1	0.0	2.9	0.5	0.0	62.2	0.4	19.2	0.0	9.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	3.0	1.0	0.0	6.7	0.6	43.4	0.5	2.5	10.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	0.0	67.4	60.5	0.0	130.8	9.0	41.0	5.3	56.9	11.1	4.6
LnGrp LOS	E	A	E	E	A	F	A	F	A	E	B	A
Approach Vol, veh/h		155			147			2641			1552	
Approach Delay, s/veh		66.3			117.4			39.3			13.4	
Approach LOS		E			F			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	111.0	8.8	19.2	10.7	111.1	11.0	17.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	106.0	7.0	12.0	7.0	106.0	7.0	12.0				
Max Q Clear Time (g_c+I1), s	4.7	108.0	4.1	8.9	3.7	32.0	7.9	13.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.0	15.4	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			33.9									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕	↕		↕	
Traffic Vol, veh/h	62	593	11	9	470	101	2	0	3	54	0	39
Future Vol, veh/h	62	593	11	9	470	101	2	0	3	54	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	270	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	67	645	12	10	511	110	2	0	3	59	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	621	0	0	657	0	0	1392	1426	651	1316	1322	511
Stage 1	-	-	-	-	-	-	785	785	-	531	531	-
Stage 2	-	-	-	-	-	-	607	641	-	785	791	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	955	-	-	926	-	-	119	135	467	134	156	561
Stage 1	-	-	-	-	-	-	384	402	-	530	524	-
Stage 2	-	-	-	-	-	-	482	468	-	384	400	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	955	-	-	926	-	-	99	118	467	120	136	561
Mov Cap-2 Maneuver	-	-	-	-	-	-	99	118	-	120	136	-
Stage 1	-	-	-	-	-	-	341	357	-	471	515	-
Stage 2	-	-	-	-	-	-	438	460	-	339	356	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.1			24.6			48.4		
HCM LOS							C			E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	99	467	955	-	-	926	-	-	179
HCM Lane V/C Ratio	0.022	0.007	0.071	-	-	0.011	-	-	0.565
HCM Control Delay (s)	42.2	12.8	9.1	0	-	8.9	0	-	48.4
HCM Lane LOS	E	B	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.1	0	0.2	-	-	0	-	-	3



Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕	↕		↕	
Traffic Vol, veh/h	62	593	11	9	470	101	2	0	3	54	0	39
Future Vol, veh/h	62	593	11	9	470	101	2	0	3	54	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	270	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	67	645	12	10	511	110	2	0	3	59	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	621	0	0	657	0	0	1392	1426	651	1316	1322	511
Stage 1	-	-	-	-	-	-	785	785	-	531	531	-
Stage 2	-	-	-	-	-	-	607	641	-	785	791	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	955	-	-	926	-	-	119	135	467	134	156	561
Stage 1	-	-	-	-	-	-	384	402	-	530	524	-
Stage 2	-	-	-	-	-	-	482	468	-	384	400	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	955	-	-	926	-	-	99	118	467	120	136	561
Mov Cap-2 Maneuver	-	-	-	-	-	-	99	118	-	120	136	-
Stage 1	-	-	-	-	-	-	341	357	-	471	515	-
Stage 2	-	-	-	-	-	-	438	460	-	339	356	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.1			24.6			48.4		
HCM LOS							C			E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	99	467	955	-	-	926	-	-	179
HCM Lane V/C Ratio	0.022	0.007	0.071	-	-	0.011	-	-	0.565
HCM Control Delay (s)	42.2	12.8	9.1	0	-	8.9	0	-	48.4
HCM Lane LOS	E	B	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.1	0	0.2	-	-	0	-	-	3

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕	↕		↕	
Traffic Vol, veh/h	62	1472	11	9	2152	102	2	0	3	68	0	39
Future Vol, veh/h	62	1472	11	9	2152	102	2	0	3	68	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	270	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	67	1600	12	10	2339	111	2	0	3	74	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2450	0	0	1612	0	0	4176	4210	1606	4099	4105	2339
Stage 1	-	-	-	-	-	-	1740	1740	-	2359	2359	-
Stage 2	-	-	-	-	-	-	2436	2470	-	1740	1746	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	189	-	-	402	-	-	~ 1	2	129	~ 1	2	46
Stage 1	-	-	-	-	-	-	110	140	-	~ 47	68	-
Stage 2	-	-	-	-	-	-	42	59	-	110	139	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	189	-	-	402	-	-	-	0	129	-	0	46
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	110	0	-	~ 47	68	-
Stage 2	-	-	-	-	-	-	3	59	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.1		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	129	189	-	-	402	-	-	-
HCM Lane V/C Ratio	-	0.025	0.357	-	-	0.024	-	-	-
HCM Control Delay (s)	-	33.6	34.2	0	-	14.2	0	-	-
HCM Lane LOS	-	D	D	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.1	1.5	-	-	0.1	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
194: Greenfield Ave & Summer Rd

Future PM Peak

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕	↕		↕	
Traffic Vol, veh/h	62	1472	11	9	2152	102	2	0	3	68	0	39
Future Vol, veh/h	62	1472	11	9	2152	102	2	0	3	68	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	270	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	67	1600	12	10	2339	111	2	0	3	74	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2450	0	0	1612	0	0	4176	4210	1606	4099	4105	2339
Stage 1	-	-	-	-	-	-	1740	1740	-	2359	2359	-
Stage 2	-	-	-	-	-	-	2436	2470	-	1740	1746	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	189	-	-	402	-	-	~ 1	2	129	~ 1	2	46
Stage 1	-	-	-	-	-	-	110	140	-	~ 47	68	-
Stage 2	-	-	-	-	-	-	42	59	-	110	139	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	189	-	-	402	-	-	-	0	129	-	0	46
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	110	0	-	~ 47	68	-
Stage 2	-	-	-	-	-	-	3	59	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.1		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	129	189	-	-	402	-	-	-
HCM Lane V/C Ratio	-	0.025	0.357	-	-	0.024	-	-	-
HCM Control Delay (s)	-	33.6	34.2	0	-	14.2	0	-	-
HCM Lane LOS	-	D	D	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.1	1.5	-	-	0.1	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh	9.3					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	1536		1016		17	158
Demand Flow Rate, veh/h	1582		1046		17	163
Vehicles Circulating, veh/h	111		35		1685	1047
Vehicles Exiting, veh/h	1099		1667		8	34
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	11.0		6.5		11.4	10.2
Approach LOS	B		A		B	B
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	744	838	492	554	17	163
Cap Entry Lane, veh/h	1219	1292	1307	1378	339	583
Entry HV Adj Factor	0.970	0.971	0.971	0.972	1.000	0.969
Flow Entry, veh/h	722	814	478	539	17	158
Cap Entry, veh/h	1182	1255	1269	1340	339	565
V/C Ratio	0.610	0.648	0.376	0.402	0.050	0.280
Control Delay, s/veh	10.7	11.2	6.4	6.5	11.4	10.2
LOS	B	B	A	A	B	B
95th %tile Queue, veh	4	5	2	2	0	1

Intersection						
Intersection Delay, s/veh28.5						
Intersection LOS D						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	1679		2460		5	116
Demand Flow Rate, veh/h	1729		2533		5	119
Vehicles Circulating, veh/h	86		71		1793	2421
Vehicles Exiting, veh/h	2454		1727		22	183
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	12.0		38.4		11.9	55.8
Approach LOS	B		E		B	F
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
Entry Flow, veh/h	813	916	1191	1342	5	119
Cap Entry Lane, veh/h	1247	1320	1264	1337	309	181
Entry HV Adj Factor	0.971	0.971	0.971	0.971	1.000	0.975
Flow Entry, veh/h	789	890	1156	1304	5	116
Cap Entry, veh/h	1211	1282	1227	1299	309	177
V/C Ratio	0.652	0.694	0.942	1.004	0.016	0.656
Control Delay, s/veh	11.6	12.4	32.2	44.0	11.9	55.8
LOS	B	B	D	F	B	F
95th %tile Queue, veh	5	6	17	22	0	4

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	12	0	0	21	8	0	0	0	2	0	5
Future Vol, veh/h	8	12	0	0	21	8	0	0	0	2	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	13	0	0	23	9	0	0	0	2	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	13	0	0	61	63	13	59	59	28
Stage 1	-	-	-	-	-	-	31	31	-	28	28	-
Stage 2	-	-	-	-	-	-	30	32	-	31	31	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1574	-	-	1599	-	-	932	826	1064	935	830	1044
Stage 1	-	-	-	-	-	-	983	867	-	987	870	-
Stage 2	-	-	-	-	-	-	984	866	-	983	867	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1574	-	-	1599	-	-	923	821	1064	930	825	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	923	821	-	930	825	-
Stage 1	-	-	-	-	-	-	977	862	-	981	870	-
Stage 2	-	-	-	-	-	-	979	866	-	977	862	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0	0	8.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1574	-	-	1599	-	-	1009
HCM Lane V/C Ratio	-	0.006	-	-	-	-	-	0.008
HCM Control Delay (s)	0	7.3	0	-	0	-	-	8.6
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	12	0	0	21	8	0	0	0	2	0	5
Future Vol, veh/h	8	12	0	0	21	8	0	0	0	2	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	13	0	0	23	9	0	0	0	2	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	13	0	0	61	63	13	59	59	28
Stage 1	-	-	-	-	-	-	31	31	-	28	28	-
Stage 2	-	-	-	-	-	-	30	32	-	31	31	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1574	-	-	1599	-	-	932	826	1064	935	830	1044
Stage 1	-	-	-	-	-	-	983	867	-	987	870	-
Stage 2	-	-	-	-	-	-	984	866	-	983	867	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1574	-	-	1599	-	-	923	821	1064	930	825	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	923	821	-	930	825	-
Stage 1	-	-	-	-	-	-	977	862	-	981	870	-
Stage 2	-	-	-	-	-	-	979	866	-	977	862	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0	0	8.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1574	-	-	1599	-	-	1009
HCM Lane V/C Ratio	-	0.006	-	-	-	-	-	0.008
HCM Control Delay (s)	0	7.3	0	-	0	-	-	8.6
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	12	0	3	22	10	0	14	1	4	7	5
Future Vol, veh/h	8	12	0	3	22	10	0	14	1	4	7	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	13	0	3	24	11	0	15	1	4	8	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	35	0	0	13	0	0	73	72	13	75	67	30
Stage 1	-	-	-	-	-	-	31	31	-	36	36	-
Stage 2	-	-	-	-	-	-	42	41	-	39	31	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1570	-	-	1599	-	-	915	817	1064	913	822	1042
Stage 1	-	-	-	-	-	-	983	867	-	977	863	-
Stage 2	-	-	-	-	-	-	970	859	-	973	867	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1570	-	-	1599	-	-	899	810	1064	894	815	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	899	810	-	894	815	-
Stage 1	-	-	-	-	-	-	977	862	-	971	861	-
Stage 2	-	-	-	-	-	-	955	857	-	949	862	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			0.6			9.5			9.1		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	823	1570	-	-	1599	-	-	896
HCM Lane V/C Ratio	0.02	0.006	-	-	0.002	-	-	0.019
HCM Control Delay (s)	9.5	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1



Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	12	0	3	22	10	0	14	1	4	7	5
Future Vol, veh/h	8	12	0	3	22	10	0	14	1	4	7	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	13	0	3	24	11	0	15	1	4	8	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	35	0	0	13	0	0	73	72	13	75	67	30
Stage 1	-	-	-	-	-	-	31	31	-	36	36	-
Stage 2	-	-	-	-	-	-	42	41	-	39	31	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1570	-	-	1599	-	-	915	817	1064	913	822	1042
Stage 1	-	-	-	-	-	-	983	867	-	977	863	-
Stage 2	-	-	-	-	-	-	970	859	-	973	867	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1570	-	-	1599	-	-	899	810	1064	894	815	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	899	810	-	894	815	-
Stage 1	-	-	-	-	-	-	977	862	-	971	861	-
Stage 2	-	-	-	-	-	-	955	857	-	949	862	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			0.6			9.5			9.1		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	823	1570	-	-	1599	-	-	896
HCM Lane V/C Ratio	0.02	0.006	-	-	0.002	-	-	0.019
HCM Control Delay (s)	9.5	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	18	26	1	9	0	9	81	0	0	111	2
Future Vol, veh/h	6	18	26	1	9	0	9	81	0	0	111	2
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	20	28	1	10	0	10	88	0	0	121	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	235	230	122	254	231	88	123	0	0	88	0	0
Stage 1	122	122	-	108	108	-	-	-	-	-	-	-
Stage 2	113	108	-	146	123	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	717	668	926	697	667	968	1458	-	-	1501	-	-
Stage 1	880	793	-	895	804	-	-	-	-	-	-	-
Stage 2	890	804	-	854	792	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	705	663	926	657	662	968	1458	-	-	1501	-	-
Mov Cap-2 Maneuver	705	663	-	657	662	-	-	-	-	-	-	-
Stage 1	874	793	-	889	798	-	-	-	-	-	-	-
Stage 2	873	798	-	808	792	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.9		10.5		0.7		0	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	784	661	1501	-
HCM Lane V/C Ratio	0.007	-	-	0.069	0.016	-	-
HCM Control Delay (s)	7.5	0	-	9.9	10.5	0	-
HCM Lane LOS	A	A	-	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	18	26	1	9	0	9	81	0	0	111	2
Future Vol, veh/h	6	18	26	1	9	0	9	81	0	0	111	2
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	20	28	1	10	0	10	88	0	0	121	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	235	230	122	254	231	88	123	0	0	88	0	0
Stage 1	122	122	-	108	108	-	-	-	-	-	-	-
Stage 2	113	108	-	146	123	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	717	668	926	697	667	968	1458	-	-	1501	-	-
Stage 1	880	793	-	895	804	-	-	-	-	-	-	-
Stage 2	890	804	-	854	792	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	705	663	926	657	662	968	1458	-	-	1501	-	-
Mov Cap-2 Maneuver	705	663	-	657	662	-	-	-	-	-	-	-
Stage 1	874	793	-	889	798	-	-	-	-	-	-	-
Stage 2	873	798	-	808	792	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.9		10.5		0.7		0	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	784	661	1501	-
HCM Lane V/C Ratio	0.007	-	-	0.069	0.016	-	-
HCM Control Delay (s)	7.5	0	-	9.9	10.5	0	-
HCM Lane LOS	A	A	-	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	18	26	1	10	0	9	123	0	0	121	13
Future Vol, veh/h	6	18	26	1	10	0	9	123	0	0	121	13
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	20	28	1	11	0	10	134	0	0	132	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	299	293	139	317	300	134	146	0	0	134	0	0
Stage 1	139	139	-	154	154	-	-	-	-	-	-	-
Stage 2	160	154	-	163	146	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	651	616	907	634	611	912	1430	-	-	1444	-	-
Stage 1	862	780	-	846	768	-	-	-	-	-	-	-
Stage 2	840	768	-	837	774	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	638	611	907	595	606	912	1430	-	-	1444	-	-
Mov Cap-2 Maneuver	638	611	-	595	606	-	-	-	-	-	-	-
Stage 1	855	780	-	839	762	-	-	-	-	-	-	-
Stage 2	821	762	-	791	774	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.3		11.1		0.5		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1430	-	-	740	605	1444	-
HCM Lane V/C Ratio	0.007	-	-	0.073	0.02	-	-
HCM Control Delay (s)	7.5	0	-	10.3	11.1	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	18	26	1	10	0	9	123	0	0	121	13
Future Vol, veh/h	6	18	26	1	10	0	9	123	0	0	121	13
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	20	28	1	11	0	10	134	0	0	132	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	299	293	139	317	300	134	146	0	0	134	0	0
Stage 1	139	139	-	154	154	-	-	-	-	-	-	-
Stage 2	160	154	-	163	146	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	651	616	907	634	611	912	1430	-	-	1444	-	-
Stage 1	862	780	-	846	768	-	-	-	-	-	-	-
Stage 2	840	768	-	837	774	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	638	611	907	595	606	912	1430	-	-	1444	-	-
Mov Cap-2 Maneuver	638	611	-	595	606	-	-	-	-	-	-	-
Stage 1	855	780	-	839	762	-	-	-	-	-	-	-
Stage 2	821	762	-	791	774	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.3		11.1		0.5		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1430	-	-	740	605	1444	-
HCM Lane V/C Ratio	0.007	-	-	0.073	0.02	-	-
HCM Control Delay (s)	7.5	0	-	10.3	11.1	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	97	38	0	2	23	0	0	92	21	0	45	22
Future Vol, veh/h	97	38	0	2	23	0	0	92	21	0	45	22
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	105	41	0	2	25	0	0	100	23	0	49	24

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	185	184	61	194	185	112	73	0	0	123	0	0
Stage 1	61	61	-	112	112	-	-	-	-	-	-	-
Stage 2	124	123	-	82	73	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	774	708	1001	763	708	938	1520	-	-	1458	-	-
Stage 1	948	842	-	891	801	-	-	-	-	-	-	-
Stage 2	878	792	-	924	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	753	708	1001	729	708	938	1520	-	-	1458	-	-
Mov Cap-2 Maneuver	753	708	-	729	708	-	-	-	-	-	-	-
Stage 1	948	842	-	891	801	-	-	-	-	-	-	-
Stage 2	851	792	-	879	832	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.1		10.3		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1520	-	-	740	710	1458	-
HCM Lane V/C Ratio	-	-	-	0.198	0.038	-	-
HCM Control Delay (s)	0	-	-	11.1	10.3	0	-
HCM Lane LOS	A	-	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.1	0	-

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	97	38	0	2	23	0	0	92	21	0	45	22
Future Vol, veh/h	97	38	0	2	23	0	0	92	21	0	45	22
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	105	41	0	2	25	0	0	100	23	0	49	24

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	185	184	61	194	185	112	73	0	0	123	0	0
Stage 1	61	61	-	112	112	-	-	-	-	-	-	-
Stage 2	124	123	-	82	73	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	774	708	1001	763	708	938	1520	-	-	1458	-	-
Stage 1	948	842	-	891	801	-	-	-	-	-	-	-
Stage 2	878	792	-	924	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	753	708	1001	729	708	938	1520	-	-	1458	-	-
Mov Cap-2 Maneuver	753	708	-	729	708	-	-	-	-	-	-	-
Stage 1	948	842	-	891	801	-	-	-	-	-	-	-
Stage 2	851	792	-	879	832	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	11.1		10.3		0			0		
HCM LOS	B		B							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR	
Capacity (veh/h)	1520	-	-	740	710	1458	-	-
HCM Lane V/C Ratio	-	-	-	0.198	0.038	-	-	-
HCM Control Delay (s)	0	-	-	11.1	10.3	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.1	0	-	-

HCM 6th TWSC  
197: Prairie Baptist Rd & 146th St

Future AM Peak

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	161	38	117	8	84	0	268	1453	21	0	690	120
Future Vol, veh/h	161	38	117	8	84	0	268	1453	21	0	690	120
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	175	41	127	9	91	0	291	1579	23	0	750	130

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	3033	2999	815	3072	3053	1591	880	0	0	1602	0	0
Stage 1	815	815	-	2173	2173	-	-	-	-	-	-	-
Stage 2	2218	2184	-	899	880	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	~ 8	~ 13	376	~ 7	~ 12	132	764	-	-	405	-	-
Stage 1	370	390	-	61	~ 85	-	-	-	-	-	-	-
Stage 2	~ 57	84	-	332	364	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	0	376	-	0	132	764	-	-	405	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-
Stage 1	370	390	-	61	0	-	-	-	-	-	-	-
Stage 2	-	0	-	196	364	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					1.9		0	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	764	-	-	-	405	-	-
HCM Lane V/C Ratio	0.381	-	-	-	-	-	-
HCM Control Delay (s)	12.6	0	-	-	0	-	-
HCM Lane LOS	B	A	-	-	A	-	-
HCM 95th %tile Q(veh)	1.8	-	-	-	0	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



HCM 6th TWSC  
197: Prairie Baptist Rd & 146th St

Future PM Peak

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	161	38	117	8	84	0	268	1453	21	0	690	120
Future Vol, veh/h	161	38	117	8	84	0	268	1453	21	0	690	120
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	175	41	127	9	91	0	291	1579	23	0	750	130

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	3033	2999	815	3072	3053	1591	880	0	0	1602	0	0
Stage 1	815	815	-	2173	2173	-	-	-	-	-	-	-
Stage 2	2218	2184	-	899	880	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	~ 8	~ 13	376	~ 7	~ 12	132	764	-	-	405	-	-
Stage 1	370	390	-	61	~ 85	-	-	-	-	-	-	-
Stage 2	~ 57	84	-	332	364	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	0	376	-	0	132	764	-	-	405	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-
Stage 1	370	390	-	61	0	-	-	-	-	-	-	-
Stage 2	-	0	-	196	364	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					1.9		0	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	764	-	-	-	405	-	-
HCM Lane V/C Ratio	0.381	-	-	-	-	-	-
HCM Control Delay (s)	12.6	0	-	-	0	-	-
HCM Lane LOS	B	A	-	-	A	-	-
HCM 95th %tile Q(veh)	1.8	-	-	-	0	-	-

























Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection								
Intersection Delay, s/veh 14.6								
Intersection LOS B								
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	319		84		297		1744	
Demand Flow Rate, veh/h	329		87		305		1797	
Vehicles Circulating, veh/h	1561		372		69		131	
Vehicles Exiting, veh/h	367		2		1821		328	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	29.1		4.3		3.8		14.3	
Approach LOS	D		A		A		B	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	LT	R	LTR	LT	TR	LT	TR	
Assumed Moves	LT	R	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.210	0.790	1.000	0.469	0.531	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	69	260	87	143	162	845	952	
Cap Entry Lane, veh/h	321	377	1035	1267	1339	1197	1270	
Entry HV Adj Factor	0.970	0.969	0.970	0.975	0.970	0.970	0.971	
Flow Entry, veh/h	67	252	84	139	157	820	924	
Cap Entry, veh/h	312	365	1004	1235	1300	1161	1234	
V/C Ratio	0.215	0.690	0.084	0.113	0.121	0.706	0.749	
Control Delay, s/veh	15.8	32.6	4.3	3.9	3.8	13.7	14.8	
LOS	C	D	A	A	A	B	B	
95th %tile Queue, veh	1	5	0	0	0	6	8	

Intersection								
Intersection Delay, s/veh 18.2								
Intersection LOS C								
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	343		100		1893		880	
Demand Flow Rate, veh/h	353		103		1950		906	
Vehicles Circulating, veh/h	781		2106		222		403	
Vehicles Exiting, veh/h	528		66		912		1806	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	9.0		29.3		23.4		9.5	
Approach LOS	A		D		C		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	LT	R	LTR	LT	TR	LT	TR	
Assumed Moves	LT	R	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.629	0.371	1.000	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	222	131	103	917	1033	426	480	
Cap Entry Lane, veh/h	658	731	237	1101	1176	932	1008	
Entry HV Adj Factor	0.972	0.969	0.973	0.970	0.971	0.970	0.971	
Flow Entry, veh/h	216	127	100	890	1003	413	466	
Cap Entry, veh/h	640	709	231	1068	1142	904	979	
V/C Ratio	0.337	0.179	0.435	0.833	0.878	0.457	0.476	
Control Delay, s/veh	10.2	7.1	29.3	21.7	24.9	9.6	9.4	
LOS	B	A	D	C	C	A	A	
95th %tile Queue, veh	1	1	2	10	13	2	3	

























HCM 6th Signalized Intersection Summary  
198: Promise Rd & 146th St

Existing AM Peak  
12/11/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	1256	116	30	900	113	57	217	24	92	159	90
Future Volume (veh/h)	252	1256	116	30	900	113	57	217	24	92	159	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	1365	126	33	978	123	62	236	26	100	173	98
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	298	1469	655	135	1143	510	334	313	266	304	342	290
Arrive On Green	0.17	0.42	0.42	0.08	0.32	0.32	0.07	0.17	0.17	0.08	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	274	1365	126	33	978	123	62	236	26	100	173	98
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	10.8	26.2	2.4	1.2	18.4	2.8	2.0	8.6	0.8	3.2	6.0	2.5
Cycle Q Clear(g_c), s	10.8	26.2	2.4	1.2	18.4	2.8	2.0	8.6	0.8	3.2	6.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	1469	655	135	1143	510	334	313	266	304	342	290
V/C Ratio(X)	0.92	0.93	0.19	0.24	0.86	0.24	0.19	0.75	0.10	0.33	0.51	0.34
Avail Cap(c_a), veh/h	298	1489	664	174	1240	553	386	339	288	328	342	290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	19.7	5.8	30.9	22.5	8.3	21.5	28.1	14.3	21.5	26.1	10.3
Incr Delay (d2), s/veh	31.7	10.5	0.1	0.9	5.7	0.2	0.3	8.5	0.2	0.6	1.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	11.0	1.1	0.5	7.5	1.3	0.8	4.2	0.3	1.3	2.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	30.3	5.9	31.8	28.2	8.6	21.8	36.6	14.4	22.2	27.3	10.9
LnGrp LOS	E	C	A	C	C	A	C	D	B	C	C	B
Approach Vol, veh/h		1765			1134			324			371	
Approach Delay, s/veh		33.3			26.2			32.0			21.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	17.0	9.4	34.6	8.9	18.1	16.0	28.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	13.0	7.0	30.0	7.0	13.0	12.0	25.0				
Max Q Clear Time (g_c+I1), s	5.2	10.6	3.2	28.2	4.0	8.0	12.8	20.4				
Green Ext Time (p_c), s	0.0	0.3	0.0	1.4	0.0	0.5	0.0	2.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								

























HCM 6th Signalized Intersection Summary  
198: Promise Rd & 146th St

Existing PM Peak  
12/11/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	1256	116	30	900	113	57	217	24	92	159	90
Future Volume (veh/h)	252	1256	116	30	900	113	57	217	24	92	159	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	1365	126	33	978	123	62	236	26	100	173	98
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	298	1469	655	135	1143	510	334	313	266	304	342	290
Arrive On Green	0.17	0.42	0.42	0.08	0.32	0.32	0.07	0.17	0.17	0.08	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	274	1365	126	33	978	123	62	236	26	100	173	98
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	10.8	26.2	2.4	1.2	18.4	2.8	2.0	8.6	0.8	3.2	6.0	2.5
Cycle Q Clear(g_c), s	10.8	26.2	2.4	1.2	18.4	2.8	2.0	8.6	0.8	3.2	6.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	1469	655	135	1143	510	334	313	266	304	342	290
V/C Ratio(X)	0.92	0.93	0.19	0.24	0.86	0.24	0.19	0.75	0.10	0.33	0.51	0.34
Avail Cap(c_a), veh/h	298	1489	664	174	1240	553	386	339	288	328	342	290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	19.7	5.8	30.9	22.5	8.3	21.5	28.1	14.3	21.5	26.1	10.3
Incr Delay (d2), s/veh	31.7	10.5	0.1	0.9	5.7	0.2	0.3	8.5	0.2	0.6	1.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	11.0	1.1	0.5	7.5	1.3	0.8	4.2	0.3	1.3	2.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	30.3	5.9	31.8	28.2	8.6	21.8	36.6	14.4	22.2	27.3	10.9
LnGrp LOS	E	C	A	C	C	A	C	D	B	C	C	B
Approach Vol, veh/h		1765			1134			324			371	
Approach Delay, s/veh		33.3			26.2			32.0			21.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	17.0	9.4	34.6	8.9	18.1	16.0	28.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	13.0	7.0	30.0	7.0	13.0	12.0	25.0				
Max Q Clear Time (g_c+I1), s	5.2	10.6	3.2	28.2	4.0	8.0	12.8	20.4				
Green Ext Time (p_c), s	0.0	0.3	0.0	1.4	0.0	0.5	0.0	2.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								

























HCM 6th Signalized Intersection Summary  
198: Promise Rd & 146th St

Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	2884	287	139	3073	417	173	321	252	282	212	90
Future Volume (veh/h)	252	2884	287	139	3073	417	173	321	252	282	212	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	3135	312	151	3340	453	188	349	274	307	230	98
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	2068	1038	106	1927	996	221	272	325	201	297	409
Arrive On Green	0.10	0.59	0.59	0.06	0.55	0.55	0.07	0.15	0.15	0.09	0.16	0.16
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	274	3135	312	151	3340	453	188	349	274	307	230	98
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	15.0	88.0	7.2	9.0	82.0	10.9	11.0	22.0	14.2	13.0	17.8	1.0
Cycle Q Clear(g_c), s	15.0	88.0	7.2	9.0	82.0	10.9	11.0	22.0	14.2	13.0	17.8	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	2068	1038	106	1927	996	221	272	325	201	297	409
V/C Ratio(X)	1.55	1.52	0.30	1.42	1.73	0.45	0.85	1.28	0.84	1.53	0.77	0.24
Avail Cap(c_a), veh/h	177	2068	1038	106	1927	996	221	272	325	201	297	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.5	31.0	4.2	70.5	34.0	5.1	55.3	64.0	43.0	53.3	60.4	27.7
Incr Delay (d2), s/veh	273.7	234.6	0.2	236.8	332.0	0.3	26.0	152.2	17.9	260.4	12.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.1	101.6	2.6	11.0	121.4	3.7	3.4	21.7	6.6	15.9	9.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	341.2	265.6	4.4	307.3	366.0	5.4	81.4	216.2	60.9	313.7	72.5	28.0
LnGrp LOS	F	F	A	F	F	A	F	F	E	F	E	C
Approach Vol, veh/h		3721			3944			811				635
Approach Delay, s/veh		249.3			322.4			132.5				182.2
Approach LOS		F			F			F				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	27.0	13.0	93.0	15.0	29.0	19.0	87.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	22.0	9.0	88.0	11.0	24.0	15.0	82.0				
Max Q Clear Time (g_c+I1), s	15.0	24.0	11.0	90.0	13.0	19.8	17.0	84.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	265.8											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
198: Promise Rd & 146th St

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	2884	287	139	3073	417	173	321	252	282	212	90
Future Volume (veh/h)	252	2884	287	139	3073	417	173	321	252	282	212	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	3135	312	151	3340	453	188	349	274	307	230	98
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	2068	1038	106	1927	996	221	272	325	201	297	409
Arrive On Green	0.10	0.59	0.59	0.06	0.55	0.55	0.07	0.15	0.15	0.09	0.16	0.16
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	274	3135	312	151	3340	453	188	349	274	307	230	98
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	15.0	88.0	7.2	9.0	82.0	10.9	11.0	22.0	14.2	13.0	17.8	1.0
Cycle Q Clear(g_c), s	15.0	88.0	7.2	9.0	82.0	10.9	11.0	22.0	14.2	13.0	17.8	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	2068	1038	106	1927	996	221	272	325	201	297	409
V/C Ratio(X)	1.55	1.52	0.30	1.42	1.73	0.45	0.85	1.28	0.84	1.53	0.77	0.24
Avail Cap(c_a), veh/h	177	2068	1038	106	1927	996	221	272	325	201	297	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.5	31.0	4.2	70.5	34.0	5.1	55.3	64.0	43.0	53.3	60.4	27.7
Incr Delay (d2), s/veh	273.7	234.6	0.2	236.8	332.0	0.3	26.0	152.2	17.9	260.4	12.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.1	101.6	2.6	11.0	121.4	3.7	3.4	21.7	6.6	15.9	9.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	341.2	265.6	4.4	307.3	366.0	5.4	81.4	216.2	60.9	313.7	72.5	28.0
LnGrp LOS	F	F	A	F	F	A	F	F	E	F	E	C
Approach Vol, veh/h		3721			3944			811				635
Approach Delay, s/veh		249.3			322.4			132.5				182.2
Approach LOS		F			F			F				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	27.0	13.0	93.0	15.0	29.0	19.0	87.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	22.0	9.0	88.0	11.0	24.0	15.0	82.0				
Max Q Clear Time (g_c+I1), s	15.0	24.0	11.0	90.0	13.0	19.8	17.0	84.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			265.8									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
 198: Promise Rd & 146th St

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖	↑	↖	↖	↑	↖
Traffic Volume (veh/h)	70	2270	80	248	2155	162	213	102	104	298	236	174
Future Volume (veh/h)	70	2270	80	248	2155	162	213	102	104	298	236	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	76	2467	87	270	2342	176	232	111	113	324	257	189
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	221	2369	952	251	2413	1023	243	222	304	308	290	348
Arrive On Green	0.06	0.47	0.47	0.07	0.48	0.48	0.14	0.12	0.12	0.17	0.16	0.16
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	76	2467	87	270	2342	176	232	111	113	324	257	189
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	2.3	51.0	1.3	8.0	49.1	2.3	14.2	6.1	1.8	19.0	14.8	3.3
Cycle Q Clear(g_c), s	2.3	51.0	1.3	8.0	49.1	2.3	14.2	6.1	1.8	19.0	14.8	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	221	2369	952	251	2413	1023	243	222	304	308	290	348
V/C Ratio(X)	0.34	1.04	0.09	1.07	0.97	0.17	0.95	0.50	0.37	1.05	0.89	0.54
Avail Cap(c_a), veh/h	221	2369	952	251	2415	1024	243	238	317	308	306	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	29.0	3.1	50.5	27.8	2.3	46.7	44.9	18.1	45.0	45.0	19.9
Incr Delay (d2), s/veh	0.9	30.4	0.0	77.7	12.2	0.1	45.1	1.7	0.8	65.7	24.3	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	25.3	0.5	6.0	20.6	0.7	9.1	2.8	1.5	13.7	8.6	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.7	59.4	3.1	128.2	40.0	2.4	91.8	46.7	18.9	110.8	69.3	21.4
LnGrp LOS	D	F	A	F	D	A	F	D	B	F	E	C
Approach Vol, veh/h		2630			2788			456			770	
Approach Delay, s/veh		57.3			46.2			62.7			75.0	
Approach LOS		E			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	18.1	12.0	56.0	19.0	22.1	11.0	57.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	19.0	14.0	8.0	51.0	15.0	18.0	7.0	52.0				
Max Q Clear Time (g_c+Y1), s	21.0	8.1	10.0	53.0	16.2	16.8	4.3	51.1				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.3	0.0	0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											55.0	
HCM 6th LOS											E	



HCM 6th Signalized Intersection Summary  
 198: Promise Rd & 146th St

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↗	↖↗	↑↑↑	↗	↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	252	2884	287	139	3073	417	173	321	252	282	212	90
Future Volume (veh/h)	252	2884	287	139	3073	417	173	321	252	282	212	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	3135	312	151	3340	453	188	349	274	307	230	98
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	229	2668	1015	160	2567	1006	210	322	346	236	349	401
Arrive On Green	0.07	0.53	0.53	0.05	0.51	0.51	0.12	0.17	0.17	0.13	0.19	0.19
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	274	3135	312	151	3340	453	188	349	274	307	230	98
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	10.0	79.0	8.2	6.6	76.0	12.5	15.7	26.0	15.8	20.0	17.2	1.4
Cycle Q Clear(g_c), s	10.0	79.0	8.2	6.6	76.0	12.5	15.7	26.0	15.8	20.0	17.2	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	229	2668	1015	160	2567	1006	210	322	346	236	349	401
V/C Ratio(X)	1.20	1.18	0.31	0.94	1.30	0.45	0.90	1.09	0.79	1.30	0.66	0.24
Avail Cap(c_a), veh/h	229	2668	1015	160	2567	1006	224	322	346	236	349	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.0	35.5	5.1	71.3	37.0	5.4	65.2	62.0	40.7	65.0	56.4	25.0
Incr Delay (d2), s/veh	123.8	83.1	0.2	54.6	138.6	0.3	32.8	74.8	11.9	163.7	4.5	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	50.9	3.0	4.1	62.4	3.3	8.9	18.7	6.8	19.6	8.4	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	193.8	118.6	5.3	125.9	175.6	5.7	98.0	136.8	52.5	228.7	61.0	25.3
LnGrp LOS	F	F	A	F	F	A	F	F	D	F	E	C
Approach Vol, veh/h		3721			3944			811			635	
Approach Delay, s/veh		114.6			154.2			99.3			136.5	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	31.0	11.0	84.0	21.8	33.2	14.0	81.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	20.0	26.0	7.0	79.0	19.0	27.0	10.0	76.0				
Max Q Clear Time (g_c+Q), s	22.0	28.0	8.6	81.0	17.7	19.2	12.0	78.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	0.9	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh												131.9
HCM 6th LOS												F

HCM 6th Signalized Intersection Summary  
199: Cumberland Rd & 146th St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	1221	130	176	790	64	150	299	164	142	327	128
Future Volume (veh/h)	168	1221	130	176	790	64	150	299	164	142	327	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	183	1327	141	191	859	70	163	325	178	154	355	139
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	218	1371	612	196	1328	593	177	430	231	187	371	314
Arrive On Green	0.12	0.39	0.39	0.11	0.38	0.38	0.10	0.19	0.19	0.11	0.20	0.20
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	2216	1188	1767	1856	1572
Grp Volume(v), veh/h	183	1327	141	191	859	70	163	257	246	154	355	139
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1642	1767	1856	1572
Q Serve(g_s), s	9.1	33.2	5.4	9.7	18.1	2.6	8.2	12.4	12.8	7.7	17.0	7.0
Cycle Q Clear(g_c), s	9.1	33.2	5.4	9.7	18.1	2.6	8.2	12.4	12.8	7.7	17.0	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	218	1371	612	196	1328	593	177	342	319	187	371	314
V/C Ratio(X)	0.84	0.97	0.23	0.97	0.65	0.12	0.92	0.75	0.77	0.82	0.96	0.44
Avail Cap(c_a), veh/h	255	1371	612	196	1328	593	177	342	319	216	371	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	26.9	18.5	39.9	23.1	18.3	40.2	34.2	34.4	39.4	35.6	31.6
Incr Delay (d2), s/veh	19.2	17.2	0.2	56.1	1.1	0.1	45.9	8.9	11.1	19.8	35.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	15.7	1.8	7.1	7.0	0.9	5.7	5.9	5.8	4.2	10.9	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	44.1	18.7	96.0	24.2	18.4	86.1	43.2	45.4	59.2	71.0	32.6
LnGrp LOS	E	D	B	F	C	B	F	D	D	E	E	C
Approach Vol, veh/h	1651			1120			666			648		
Approach Delay, s/veh	43.5			36.1			54.5			60.0		
Approach LOS	D			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.5	22.5	14.0	40.0	13.0	23.0	15.1	38.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	16.0	10.0	35.0	9.0	18.0	13.0	32.0					
Max Q Clear Time (g_c+19), s	14.8	11.7	35.2	10.2	19.0	11.1	20.1					
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.0	0.1	4.5				

Intersection Summary

HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
199: Cumberland Rd & 146th St

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	1221	130	176	790	64	150	299	164	142	327	128
Future Volume (veh/h)	168	1221	130	176	790	64	150	299	164	142	327	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	183	1327	141	191	859	70	163	325	178	154	355	139
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	218	1371	612	196	1328	593	177	430	231	187	371	314
Arrive On Green	0.12	0.39	0.39	0.11	0.38	0.38	0.10	0.19	0.19	0.11	0.20	0.20
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	2216	1188	1767	1856	1572
Grp Volume(v), veh/h	183	1327	141	191	859	70	163	257	246	154	355	139
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1642	1767	1856	1572
Q Serve(g_s), s	9.1	33.2	5.4	9.7	18.1	2.6	8.2	12.4	12.8	7.7	17.0	7.0
Cycle Q Clear(g_c), s	9.1	33.2	5.4	9.7	18.1	2.6	8.2	12.4	12.8	7.7	17.0	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	218	1371	612	196	1328	593	177	342	319	187	371	314
V/C Ratio(X)	0.84	0.97	0.23	0.97	0.65	0.12	0.92	0.75	0.77	0.82	0.96	0.44
Avail Cap(c_a), veh/h	255	1371	612	196	1328	593	177	342	319	216	371	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	26.9	18.5	39.9	23.1	18.3	40.2	34.2	34.4	39.4	35.6	31.6
Incr Delay (d2), s/veh	19.2	17.2	0.2	56.1	1.1	0.1	45.9	8.9	11.1	19.8	35.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	15.7	1.8	7.1	7.0	0.9	5.7	5.9	5.8	4.2	10.9	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	44.1	18.7	96.0	24.2	18.4	86.1	43.2	45.4	59.2	71.0	32.6
LnGrp LOS	E	D	B	F	C	B	F	D	D	E	E	C
Approach Vol, veh/h	1651			1120			666			648		
Approach Delay, s/veh	43.5			36.1			54.5			60.0		
Approach LOS	D			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.5	22.5	14.0	40.0	13.0	23.0	15.1	38.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	16.0	10.0	35.0	9.0	18.0	13.0	32.0					
Max Q Clear Time (g_c+19), s	14.8	11.7	35.2	10.2	19.0	11.1	20.1					
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.0	0.1	4.5				

Intersection Summary

HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
199: Cumberland Rd & 146th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	2599	161	281	2952	174	189	311	233	306	346	329
Future Volume (veh/h)	216	2599	161	281	2952	174	189	311	233	306	346	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	235	2825	175	305	3209	189	205	338	253	333	376	358
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	153	1810	933	200	1904	1038	141	259	190	212	322	409
Arrive On Green	0.09	0.51	0.51	0.11	0.54	0.54	0.08	0.13	0.13	0.12	0.17	0.17
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1939	1423	1767	1856	1572
Grp Volume(v), veh/h	235	2825	175	305	3209	189	205	307	284	333	376	358
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1599	1767	1856	1572
Q Serve(g_s), s	13.0	77.0	7.6	17.0	81.0	7.0	12.0	20.0	20.0	18.0	26.0	26.0
Cycle Q Clear(g_c), s	13.0	77.0	7.6	17.0	81.0	7.0	12.0	20.0	20.0	18.0	26.0	26.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	153	1810	933	200	1904	1038	141	235	213	212	322	409
V/C Ratio(X)	1.53	1.56	0.19	1.52	1.69	0.18	1.45	1.30	1.33	1.57	1.17	0.88
Avail Cap(c_a), veh/h	153	1810	933	200	1904	1038	141	235	213	212	322	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	36.5	14.0	66.5	34.5	9.9	69.0	65.0	65.0	66.0	62.0	53.2
Incr Delay (d2), s/veh	270.5	255.2	0.1	259.1	310.8	0.1	237.5	164.5	178.4	278.2	104.3	18.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	95.2	2.7	21.9	114.4	2.3	14.7	19.6	18.6	24.4	21.4	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	339.0	291.7	14.1	325.6	345.3	9.9	306.5	229.5	243.4	344.2	166.3	71.9
LnGrp LOS	F	F	B	F	F	A	F	F	F	F	F	E
Approach Vol, veh/h	3235			3703			796			1067		
Approach Delay, s/veh	280.1			326.6			254.3			190.1		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	25.0	21.0	82.0	16.0	31.0	17.0	86.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	20.0	17.0	77.0	12.0	26.0	13.0	81.0				
Max Q Clear Time (g_c+20), s	20.0	22.0	19.0	79.0	14.0	28.0	15.0	83.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	286.4
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
199: Cumberland Rd & 146th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	2599	161	281	2952	174	189	311	233	306	346	329
Future Volume (veh/h)	216	2599	161	281	2952	174	189	311	233	306	346	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	235	2825	175	305	3209	189	205	338	253	333	376	358
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	153	1810	933	200	1904	1038	141	259	190	212	322	409
Arrive On Green	0.09	0.51	0.51	0.11	0.54	0.54	0.08	0.13	0.13	0.12	0.17	0.17
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1939	1423	1767	1856	1572
Grp Volume(v), veh/h	235	2825	175	305	3209	189	205	307	284	333	376	358
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1599	1767	1856	1572
Q Serve(g_s), s	13.0	77.0	7.6	17.0	81.0	7.0	12.0	20.0	20.0	18.0	26.0	26.0
Cycle Q Clear(g_c), s	13.0	77.0	7.6	17.0	81.0	7.0	12.0	20.0	20.0	18.0	26.0	26.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	153	1810	933	200	1904	1038	141	235	213	212	322	409
V/C Ratio(X)	1.53	1.56	0.19	1.52	1.69	0.18	1.45	1.30	1.33	1.57	1.17	0.88
Avail Cap(c_a), veh/h	153	1810	933	200	1904	1038	141	235	213	212	322	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	36.5	14.0	66.5	34.5	9.9	69.0	65.0	65.0	66.0	62.0	53.2
Incr Delay (d2), s/veh	270.5	255.2	0.1	259.1	310.8	0.1	237.5	164.5	178.4	278.2	104.3	18.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	95.2	2.7	21.9	114.4	2.3	14.7	19.6	18.6	24.4	21.4	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	339.0	291.7	14.1	325.6	345.3	9.9	306.5	229.5	243.4	344.2	166.3	71.9
LnGrp LOS	F	F	B	F	F	A	F	F	F	F	F	E
Approach Vol, veh/h		3235			3703			796			1067	
Approach Delay, s/veh		280.1			326.6			254.3			190.1	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	25.0	21.0	82.0	16.0	31.0	17.0	86.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	20.0	17.0	77.0	12.0	26.0	13.0	81.0				
Max Q Clear Time (g_c+20), s	20.0	22.0	19.0	79.0	14.0	28.0	15.0	83.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			286.4									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
 199: Cumberland Rd & 146th St

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘	↑↑↑	↗	↘	↑↑		↘	↑	↗
Traffic Volume (veh/h)	243	2201	114	187	1794	323	138	209	147	63	276	149
Future Volume (veh/h)	243	2201	114	187	1794	323	138	209	147	63	276	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	264	2392	124	203	1950	351	150	227	160	68	300	162
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	273	2349	858	209	2164	759	145	400	270	98	321	515
Arrive On Green	0.15	0.46	0.46	0.12	0.43	0.43	0.08	0.20	0.20	0.06	0.17	0.17
Sat Flow, veh/h	1767	5066	1572	1767	5066	1572	1767	2014	1360	1767	1856	1572
Grp Volume(v), veh/h	264	2392	124	203	1950	351	150	197	190	68	300	162
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1572	1767	1763	1611	1767	1856	1572
Q Serve(g_s), s	16.3	51.0	4.3	12.6	39.4	16.3	9.0	11.1	11.8	4.2	17.6	8.5
Cycle Q Clear(g_c), s	16.3	51.0	4.3	12.6	39.4	16.3	9.0	11.1	11.8	4.2	17.6	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.84	1.00		1.00
Lane Grp Cap(c), veh/h	273	2349	858	209	2164	759	145	351	320	98	321	515
V/C Ratio(X)	0.97	1.02	0.14	0.97	0.90	0.46	1.04	0.56	0.59	0.69	0.94	0.31
Avail Cap(c_a), veh/h	273	2349	858	209	2164	759	145	351	320	161	321	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	29.5	12.3	48.3	29.3	18.9	50.5	39.8	40.0	51.0	44.9	27.7
Incr Delay (d2), s/veh	45.2	23.4	0.1	54.1	5.7	0.4	85.1	2.1	2.9	8.3	33.9	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	23.8	1.4	8.5	15.9	5.6	7.3	4.9	4.8	2.0	10.9	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	91.4	52.9	12.4	102.4	35.0	19.4	135.6	41.8	42.9	59.4	78.8	28.1
LnGrp LOS	F	F	B	F	D	B	F	D	D	E	E	C
Approach Vol, veh/h		2780			2504			537			530	
Approach Delay, s/veh		54.7			38.3			68.4			60.8	
Approach LOS		D			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.1	26.9	17.0	56.0	13.0	24.0	21.0	52.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	18.0	13.0	51.0	9.0	19.0	17.0	47.0				
Max Q Clear Time (g_c+1/3), s	10.0	13.8	14.6	53.0	11.0	19.6	18.3	41.4				
Green Ext Time (p_c), s	0.0	0.8	0.0	0.0	0.0	0.0	0.0	4.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											49.9	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary  
 199: Cumberland Rd & 146th St

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	2599	161	281	2952	174	189	311	233	306	346	329
Future Volume (veh/h)	216	2599	161	281	2952	174	189	311	233	306	346	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	235	2825	175	305	3209	189	205	338	253	333	376	358
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	188	2330	870	236	2465	996	165	271	199	259	359	472
Arrive On Green	0.11	0.46	0.46	0.13	0.49	0.49	0.09	0.14	0.14	0.15	0.19	0.19
Sat Flow, veh/h	1767	5066	1572	1767	5066	1572	1767	1939	1423	1767	1856	1572
Grp Volume(v), veh/h	235	2825	175	305	3209	189	205	307	284	333	376	358
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1572	1767	1763	1599	1767	1856	1572
Q Serve(g_s), s	16.0	69.0	8.4	20.0	73.0	7.5	14.0	21.0	21.0	22.0	29.0	29.0
Cycle Q Clear(g_c), s	16.0	69.0	8.4	20.0	73.0	7.5	14.0	21.0	21.0	22.0	29.0	29.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	188	2330	870	236	2465	996	165	247	224	259	359	472
V/C Ratio(X)	1.25	1.21	0.20	1.29	1.30	0.19	1.24	1.24	1.27	1.28	1.05	0.76
Avail Cap(c_a), veh/h	188	2330	870	236	2465	996	165	247	224	259	359	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.0	40.5	16.8	65.0	38.5	11.5	68.0	64.5	64.5	64.0	60.5	47.6
Incr Delay (d2), s/veh	147.4	99.8	0.1	160.3	138.8	0.1	150.0	138.6	151.7	154.2	60.7	7.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	48.8	3.0	19.3	60.2	2.5	13.1	18.8	17.9	20.9	19.5	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	214.4	140.3	16.9	225.3	177.3	11.6	218.0	203.1	216.2	218.2	121.2	54.6
LnGrp LOS	F	F	B	F	F	B	F	F	F	F	F	D
Approach Vol, veh/h		3235			3703			796			1067	
Approach Delay, s/veh		139.0			172.8			211.6			129.1	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	26.0	24.0	74.0	18.0	34.0	20.0	78.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	22.0	21.0	20.0	69.0	14.0	29.0	16.0	73.0				
Max Q Clear Time (g_c+Y), s	24.0	23.0	22.0	71.0	16.0	31.0	18.0	75.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			158.6									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
201: Herriman Blvd & 146th St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑		↖	↗		↖	↗	
Traffic Volume (veh/h)	83	1549	20	18	1365	126	27	101	73	263	56	185
Future Volume (veh/h)	83	1549	20	18	1365	126	27	101	73	263	56	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	90	1684	22	20	1484	137	29	110	79	286	61	201
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	295	2116	657	211	1707	158	331	325	233	401	123	404
Arrive On Green	0.09	0.42	0.42	0.03	0.36	0.36	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1767	5066	1572	1767	4719	435	1109	1004	721	1185	380	1251
Grp Volume(v), veh/h	90	1684	22	20	1062	559	29	0	189	286	0	262
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1777	1109	0	1726	1185	0	1630
Q Serve(g_s), s	1.7	17.9	0.5	0.4	18.1	18.1	1.3	0.0	5.2	14.8	0.0	8.0
Cycle Q Clear(g_c), s	1.7	17.9	0.5	0.4	18.1	18.1	9.4	0.0	5.2	20.0	0.0	8.0
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.42	1.00		0.77
Lane Grp Cap(c), veh/h	295	2116	657	211	1221	643	331	0	558	401	0	527
V/C Ratio(X)	0.31	0.80	0.03	0.09	0.87	0.87	0.09	0.00	0.34	0.71	0.00	0.50
Avail Cap(c_a), veh/h	366	2116	657	381	1255	660	331	0	558	401	0	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.1	15.7	10.6	13.3	18.4	18.4	20.7	0.0	15.9	23.6	0.0	16.9
Incr Delay (d2), s/veh	0.6	2.2	0.0	0.2	6.7	11.8	0.5	0.0	1.6	10.4	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.9	0.1	0.1	6.9	8.2	0.4	0.0	2.1	4.8	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	17.9	10.7	13.5	25.1	30.2	21.2	0.0	17.6	34.0	0.0	20.2
LnGrp LOS	B	B	B	B	C	C	C	A	B	C	A	C
Approach Vol, veh/h		1796			1641			218			548	
Approach Delay, s/veh		17.6			26.7			18.1			27.4	
Approach LOS		B			C			B			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.0	6.0	30.9		25.0	9.5	27.4				
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		20.0	8.0	23.0		20.0	8.0	23.0				
Max Q Clear Time (g_c+I1), s		11.4	2.4	19.9		22.0	3.7	20.1				
Green Ext Time (p_c), s		0.7	0.0	2.5		0.0	0.1	2.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											22.5	
HCM 6th LOS											C	



HCM 6th Signalized Intersection Summary  
201: Herriman Blvd & 146th St

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑		↖	↗		↖	↗	
Traffic Volume (veh/h)	83	1549	20	18	1365	126	27	101	73	263	56	185
Future Volume (veh/h)	83	1549	20	18	1365	126	27	101	73	263	56	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	90	1684	22	20	1484	137	29	110	79	286	61	201
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	295	2116	657	211	1707	158	331	325	233	401	123	404
Arrive On Green	0.09	0.42	0.42	0.03	0.36	0.36	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1767	5066	1572	1767	4719	435	1109	1004	721	1185	380	1251
Grp Volume(v), veh/h	90	1684	22	20	1062	559	29	0	189	286	0	262
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1777	1109	0	1726	1185	0	1630
Q Serve(g_s), s	1.7	17.9	0.5	0.4	18.1	18.1	1.3	0.0	5.2	14.8	0.0	8.0
Cycle Q Clear(g_c), s	1.7	17.9	0.5	0.4	18.1	18.1	9.4	0.0	5.2	20.0	0.0	8.0
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.42	1.00		0.77
Lane Grp Cap(c), veh/h	295	2116	657	211	1221	643	331	0	558	401	0	527
V/C Ratio(X)	0.31	0.80	0.03	0.09	0.87	0.87	0.09	0.00	0.34	0.71	0.00	0.50
Avail Cap(c_a), veh/h	366	2116	657	381	1255	660	331	0	558	401	0	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.1	15.7	10.6	13.3	18.4	18.4	20.7	0.0	15.9	23.6	0.0	16.9
Incr Delay (d2), s/veh	0.6	2.2	0.0	0.2	6.7	11.8	0.5	0.0	1.6	10.4	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.9	0.1	0.1	6.9	8.2	0.4	0.0	2.1	4.8	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	17.9	10.7	13.5	25.1	30.2	21.2	0.0	17.6	34.0	0.0	20.2
LnGrp LOS	B	B	B	B	C	C	C	A	B	C	A	C
Approach Vol, veh/h		1796			1641			218			548	
Approach Delay, s/veh		17.6			26.7			18.1			27.4	
Approach LOS		B			C			B			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.0	6.0	30.9		25.0	9.5	27.4				
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		20.0	8.0	23.0		20.0	8.0	23.0				
Max Q Clear Time (g_c+I1), s		11.4	2.4	19.9		22.0	3.7	20.1				
Green Ext Time (p_c), s		0.7	0.0	2.5		0.0	0.1	2.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											22.5	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
201: Herriman Blvd & 146th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑		↖	↗		↖	↗	
Traffic Volume (veh/h)	83	2956	20	41	3536	126	35	101	104	263	56	185
Future Volume (veh/h)	83	2956	20	41	3536	126	35	101	104	263	56	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	90	3213	22	45	3843	137	38	110	113	286	61	201
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	129	3129	971	119	3072	108	164	96	98	226	94	311
Arrive On Green	0.05	0.62	0.62	0.04	0.61	0.61	0.11	0.11	0.11	0.10	0.25	0.25
Sat Flow, veh/h	1767	5066	1572	1767	5024	177	1109	839	862	1767	380	1251
Grp Volume(v), veh/h	90	3213	22	45	2569	1411	38	0	223	286	0	262
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1824	1109	0	1700	1767	0	1630
Q Serve(g_s), s	3.3	91.9	0.8	1.4	91.0	91.0	4.7	0.0	17.0	15.0	0.0	21.4
Cycle Q Clear(g_c), s	3.3	91.9	0.8	1.4	91.0	91.0	6.1	0.0	17.0	15.0	0.0	21.4
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.51	1.00		0.77
Lane Grp Cap(c), veh/h	129	3129	971	119	2065	1115	164	0	194	226	0	405
V/C Ratio(X)	0.70	1.03	0.02	0.38	1.24	1.27	0.23	0.00	1.15	1.26	0.00	0.65
Avail Cap(c_a), veh/h	143	3129	971	143	2065	1115	164	0	194	226	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.0	28.5	11.0	37.1	28.9	28.9	61.8	0.0	65.9	53.6	0.0	50.1
Incr Delay (d2), s/veh	12.1	23.5	0.0	2.0	114.1	126.8	3.3	0.0	110.1	148.6	0.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	40.2	0.3	1.0	66.0	75.2	1.5	0.0	13.3	10.6	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	51.9	11.0	39.1	143.0	155.7	65.0	0.0	176.0	202.2	0.0	57.8
LnGrp LOS	D	F	B	D	F	F	E	A	F	F	A	E
Approach Vol, veh/h		3325			4025			261			548	
Approach Delay, s/veh		51.7			146.3			159.9			133.2	
Approach LOS		D			F			F			F	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	30.0	22.0	9.9	96.9		42.0	10.8	96.0				
Change Period (Y+Rc), s	5.0	5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s	17.0	17.0	8.0	91.0		37.0	8.0	91.0				
Max Q Clear Time (g_c+M), s	19.0	19.0	3.4	93.9		23.4	5.3	93.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0		1.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	107.3
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
201: Herriman Blvd & 146th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑		↖	↗		↖	↗	
Traffic Volume (veh/h)	83	2956	20	41	3536	126	35	101	104	263	56	185
Future Volume (veh/h)	83	2956	20	41	3536	126	35	101	104	263	56	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	90	3213	22	45	3843	137	38	110	113	286	61	201
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	129	3129	971	119	3072	108	164	96	98	226	94	311
Arrive On Green	0.05	0.62	0.62	0.04	0.61	0.61	0.11	0.11	0.11	0.10	0.25	0.25
Sat Flow, veh/h	1767	5066	1572	1767	5024	177	1109	839	862	1767	380	1251
Grp Volume(v), veh/h	90	3213	22	45	2569	1411	38	0	223	286	0	262
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1824	1109	0	1700	1767	0	1630
Q Serve(g_s), s	3.3	91.9	0.8	1.4	91.0	91.0	4.7	0.0	17.0	15.0	0.0	21.4
Cycle Q Clear(g_c), s	3.3	91.9	0.8	1.4	91.0	91.0	6.1	0.0	17.0	15.0	0.0	21.4
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.51	1.00		0.77
Lane Grp Cap(c), veh/h	129	3129	971	119	2065	1115	164	0	194	226	0	405
V/C Ratio(X)	0.70	1.03	0.02	0.38	1.24	1.27	0.23	0.00	1.15	1.26	0.00	0.65
Avail Cap(c_a), veh/h	143	3129	971	143	2065	1115	164	0	194	226	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.0	28.5	11.0	37.1	28.9	28.9	61.8	0.0	65.9	53.6	0.0	50.1
Incr Delay (d2), s/veh	12.1	23.5	0.0	2.0	114.1	126.8	3.3	0.0	110.1	148.6	0.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	40.2	0.3	1.0	66.0	75.2	1.5	0.0	13.3	10.6	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	51.9	11.0	39.1	143.0	155.7	65.0	0.0	176.0	202.2	0.0	57.8
LnGrp LOS	D	F	B	D	F	F	E	A	F	F	A	E
Approach Vol, veh/h		3325			4025			261			548	
Approach Delay, s/veh		51.7			146.3			159.9			133.2	
Approach LOS		D			F			F			F	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	30.0	22.0	9.9	96.9		42.0	10.8	96.0				
Change Period (Y+Rc), s	5.0	5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	17.0	8.0	91.0		37.0	8.0	91.0				
Max Q Clear Time (g_c+M), s	11.0	19.0	3.4	93.9		23.4	5.3	93.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0		1.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	107.3
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
 201: Herriman Blvd & 146th St

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑		↖	↗		↖	↗	↗
Traffic Volume (veh/h)	118	2631	38	79	2223	183	14	69	47	78	37	64
Future Volume (veh/h)	118	2631	38	79	2223	183	14	69	47	78	37	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	128	2860	41	86	2416	199	15	75	51	85	40	70
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	2875	892	109	2610	211	254	142	96	203	105	184
Arrive On Green	0.08	0.57	0.57	0.06	0.55	0.55	0.02	0.14	0.14	0.06	0.17	0.17
Sat Flow, veh/h	1767	5066	1572	1767	4776	387	1767	1029	700	3428	605	1059
Grp Volume(v), veh/h	128	2860	41	86	1696	919	15	0	126	85	0	110
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1786	1767	0	1730	1714	0	1665
Q Serve(g_s), s	7.8	61.2	1.3	5.2	49.9	52.4	0.8	0.0	7.4	2.6	0.0	6.4
Cycle Q Clear(g_c), s	7.8	61.2	1.3	5.2	49.9	52.4	0.8	0.0	7.4	2.6	0.0	6.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.40	1.00		0.64
Lane Grp Cap(c), veh/h	146	2875	892	109	1846	976	254	0	238	203	0	289
V/C Ratio(X)	0.88	0.99	0.05	0.79	0.92	0.94	0.06	0.00	0.53	0.42	0.00	0.38
Avail Cap(c_a), veh/h	146	2875	892	130	1858	982	326	0	238	220	0	289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.5	23.4	10.5	50.5	22.5	23.1	38.8	0.0	43.8	49.5	0.0	39.9
Incr Delay (d2), s/veh	41.1	15.6	0.0	23.6	7.9	16.4	0.1	0.0	8.2	1.4	0.0	3.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	25.1	0.4	3.0	19.4	23.7	0.3	0.0	3.7	1.1	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	90.6	39.0	10.5	74.1	30.4	39.5	38.8	0.0	52.0	50.9	0.0	43.7
LnGrp LOS	F	D	B	E	C	D	D		D	D		D
Approach Vol, veh/h		3029			2701			141			195	
Approach Delay, s/veh		40.8			34.9			50.6			46.8	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	20.0	10.7	66.9	7.6	23.9	13.0	64.6				
Change Period (Y+Rc), s	5.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	15.0	8.0	61.0	7.0	15.0	9.0	60.0				
Max Q Clear Time (g_c+14), s	9.4	9.4	7.2	63.2	2.8	8.4	9.8	54.4				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.2	0.0	5.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh												38.6
HCM 6th LOS												D

HCM 6th Signalized Intersection Summary  
 201: Herriman Blvd & 146th St

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑		↖	↗		↖	↗	↘
Traffic Volume (veh/h)	83	2956	20	41	3536	126	35	101	104	263	56	185
Future Volume (veh/h)	83	2956	20	41	3536	126	35	101	104	263	56	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	90	3213	22	45	3843	137	38	110	113	286	61	201
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	94	3278	1018	70	3182	112	114	101	103	229	57	187
Arrive On Green	0.05	0.65	0.65	0.04	0.63	0.63	0.04	0.12	0.12	0.07	0.15	0.15
Sat Flow, veh/h	1767	5066	1572	1767	5024	177	1767	839	862	3428	380	1251
Grp Volume(v), veh/h	90	3213	22	45	2569	1411	38	0	223	286	0	262
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1824	1767	0	1700	1714	0	1630
Q Serve(g_s), s	7.6	91.8	0.8	3.8	95.0	95.0	2.8	0.0	18.0	10.0	0.0	22.4
Cycle Q Clear(g_c), s	7.6	91.8	0.8	3.8	95.0	95.0	2.8	0.0	18.0	10.0	0.0	22.4
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.51	1.00		0.77
Lane Grp Cap(c), veh/h	94	3278	1018	70	2139	1155	114	0	204	229	0	244
V/C Ratio(X)	0.95	0.98	0.02	0.64	1.20	1.22	0.33	0.00	1.09	1.25	0.00	1.07
Avail Cap(c_a), veh/h	94	3278	1018	94	2139	1155	130	0	204	229	0	244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.8	25.5	9.5	71.0	27.5	27.5	55.5	0.0	66.0	70.0	0.0	63.8
Incr Delay (d2), s/veh	77.8	11.5	0.0	9.5	95.2	107.8	1.7	0.0	90.0	143.9	0.0	78.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	36.2	0.3	1.9	62.4	71.5	1.3	0.0	12.9	8.9	0.0	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	148.6	37.0	9.5	80.5	122.7	135.3	57.3	0.0	156.0	213.9	0.0	142.5
LnGrp LOS	F	D	A	F	F	F	E		F	F		F
Approach Vol, veh/h		3325			4025			261			548	
Approach Delay, s/veh		39.8			126.7			141.6			179.8	
Approach LOS		D			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	23.0	9.9	102.1	10.6	27.4	12.0	100.0				
Change Period (Y+Rc), s	5.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	18.0	18.0	8.0	95.0	7.0	21.0	8.0	95.0				
Max Q Clear Time (g_c+1/2g), s	20.0	20.0	5.8	93.8	4.8	24.4	9.6	97.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh											95.3	
HCM 6th LOS											F	

HCM 6th Signalized Intersection Summary  
202: Allisonville Rd & 146th St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	252	1339	490	131	1175	46	671	358	134	71	194	176
Future Volume (veh/h)	252	1339	490	131	1175	46	671	358	134	71	194	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	1455	533	142	1277	50	729	389	146	77	211	191
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	311	1492	665	260	1400	624	733	413	469	198	471	353
Arrive On Green	0.09	0.42	0.42	0.08	0.40	0.40	0.17	0.22	0.22	0.07	0.13	0.13
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	1856	1572	1767	3526	1572
Grp Volume(v), veh/h	274	1455	533	142	1277	50	729	389	146	77	211	191
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1856	1572	1767	1763	1572
Q Serve(g_s), s	7.1	36.4	26.6	3.6	30.7	1.8	15.0	18.5	4.4	0.0	5.0	2.6
Cycle Q Clear(g_c), s	7.1	36.4	26.6	3.6	30.7	1.8	15.0	18.5	4.4	0.0	5.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	1492	665	260	1400	624	733	413	469	198	471	353
V/C Ratio(X)	0.88	0.98	0.80	0.55	0.91	0.08	0.99	0.94	0.31	0.39	0.45	0.54
Avail Cap(c_a), veh/h	311	1492	665	267	1453	648	733	413	469	218	471	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	25.4	22.6	40.0	25.6	16.9	36.7	34.3	12.1	39.1	35.8	12.8
Incr Delay (d2), s/veh	24.2	17.7	6.9	2.2	8.8	0.1	31.8	29.8	0.4	1.2	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	17.1	10.0	1.5	13.2	0.6	11.0	11.2	1.8	1.6	2.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	43.1	29.5	42.2	34.4	16.9	68.4	64.1	12.5	40.3	36.5	14.4
LnGrp LOS	E	D	C	D	C	B	E	E	B	D	D	B
Approach Vol, veh/h		2262			1469			1264			479	
Approach Delay, s/veh		42.5			34.6			60.6			28.3	
Approach LOS		D			C			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	25.0	10.8	43.0	19.0	17.0	13.1	40.7				
Change Period (Y+Rc), s	5.0	* 5	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	20	* 20	7.0	38.0	15.0	12.0	8.0	* 37				
Max Q Clear Time (g_c+1), s	20.5	5.6	38.4	17.0	7.0	9.1	32.7					
Green Ext Time (p_c), s	0.1	0.0	0.1	0.0	0.0	0.8	0.0	2.9				

Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
202: Allisonville Rd & 146th St

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	252	1339	490	131	1175	46	671	358	134	71	194	176
Future Volume (veh/h)	252	1339	490	131	1175	46	671	358	134	71	194	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	1455	533	142	1277	50	729	389	146	77	211	191
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	311	1492	665	260	1400	624	733	413	469	198	471	353
Arrive On Green	0.09	0.42	0.42	0.08	0.40	0.40	0.17	0.22	0.22	0.07	0.13	0.13
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	1856	1572	1767	3526	1572
Grp Volume(v), veh/h	274	1455	533	142	1277	50	729	389	146	77	211	191
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1856	1572	1767	1763	1572
Q Serve(g_s), s	7.1	36.4	26.6	3.6	30.7	1.8	15.0	18.5	4.4	0.0	5.0	2.6
Cycle Q Clear(g_c), s	7.1	36.4	26.6	3.6	30.7	1.8	15.0	18.5	4.4	0.0	5.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	1492	665	260	1400	624	733	413	469	198	471	353
V/C Ratio(X)	0.88	0.98	0.80	0.55	0.91	0.08	0.99	0.94	0.31	0.39	0.45	0.54
Avail Cap(c_a), veh/h	311	1492	665	267	1453	648	733	413	469	218	471	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	25.4	22.6	40.0	25.6	16.9	36.7	34.3	12.1	39.1	35.8	12.8
Incr Delay (d2), s/veh	24.2	17.7	6.9	2.2	8.8	0.1	31.8	29.8	0.4	1.2	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	17.1	10.0	1.5	13.2	0.6	11.0	11.2	1.8	1.6	2.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	43.1	29.5	42.2	34.4	16.9	68.4	64.1	12.5	40.3	36.5	14.4
LnGrp LOS	E	D	C	D	C	B	E	E	B	D	D	B
Approach Vol, veh/h		2262			1469			1264			479	
Approach Delay, s/veh		42.5			34.6			60.6			28.3	
Approach LOS		D			C			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	25.0	10.8	43.0	19.0	17.0	13.1	40.7				
Change Period (Y+Rc), s	5.0	* 5	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	20	* 20	7.0	38.0	15.0	12.0	8.0	* 37				
Max Q Clear Time (g_c+1), s	20.5	5.6	38.4	17.0	7.0	9.1	32.7					
Green Ext Time (p_c), s	0.1	0.0	0.1	0.0	0.0	0.8	0.0	2.9				

Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
202: Allisonville Rd & 146th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	252	2567	504	313	3172	46	713	364	313	71	198	176
Future Volume (veh/h)	252	2567	504	313	3172	46	713	364	313	71	198	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	2790	548	340	3448	50	775	396	340	77	215	191
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	203	2045	1130	226	2045	982	475	342	394	126	342	246
Arrive On Green	0.06	0.58	0.58	0.07	0.58	0.58	0.14	0.18	0.18	0.04	0.10	0.10
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	1856	1572	1767	3526	1572
Grp Volume(v), veh/h	274	2790	548	340	3448	50	775	396	340	77	215	191
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1856	1572	1767	1763	1572
Q Serve(g_s), s	9.0	88.0	22.9	10.0	88.0	0.0	21.0	28.0	25.7	2.3	8.9	7.3
Cycle Q Clear(g_c), s	9.0	88.0	22.9	10.0	88.0	0.0	21.0	28.0	25.7	2.3	8.9	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	2045	1130	226	2045	982	475	342	394	126	342	246
V/C Ratio(X)	1.35	1.36	0.49	1.50	1.69	0.05	1.63	1.16	0.86	0.61	0.63	0.78
Avail Cap(c_a), veh/h	203	2045	1130	226	2045	982	475	342	394	129	342	246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.4	31.9	9.2	70.9	31.9	11.1	65.4	61.9	36.9	69.7	65.9	40.0
Incr Delay (d2), s/veh	185.3	167.2	0.3	248.8	311.0	0.0	294.4	98.2	17.6	7.9	3.6	14.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	81.9	7.1	12.1	122.8	0.6	28.4	22.3	11.6	3.1	4.1	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	256.6	199.1	9.6	319.7	342.8	11.1	359.8	160.1	54.6	77.6	69.5	54.5
LnGrp LOS	F	F	A	F	F	B	F	F	D	E	E	D
Approach Vol, veh/h		3612			3838			1511			483	
Approach Delay, s/veh		174.7			336.5			238.8			64.9	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	33.0	14.0	93.0	25.0	19.7	14.0	93.0				
Change Period (Y+Rc), s	5.0	* 5	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	28	* 28	10.0	87.0	21.0	14.0	9.0	* 88				
Max Q Clear Time (g_c+14), s	30.0	30.0	12.0	90.0	23.0	10.9	11.0	90.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	245.1
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



HCM 6th Signalized Intersection Summary  
202: Allisonville Rd & 146th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	252	2567	504	313	3172	46	713	364	313	71	198	176
Future Volume (veh/h)	252	2567	504	313	3172	46	713	364	313	71	198	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	274	2790	548	340	3448	50	775	396	340	77	215	191
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	203	2045	1130	226	2045	982	475	342	394	126	342	246
Arrive On Green	0.06	0.58	0.58	0.07	0.58	0.58	0.14	0.18	0.18	0.04	0.10	0.10
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	1856	1572	1767	3526	1572
Grp Volume(v), veh/h	274	2790	548	340	3448	50	775	396	340	77	215	191
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1856	1572	1767	1763	1572
Q Serve(g_s), s	9.0	88.0	22.9	10.0	88.0	0.0	21.0	28.0	25.7	2.3	8.9	7.3
Cycle Q Clear(g_c), s	9.0	88.0	22.9	10.0	88.0	0.0	21.0	28.0	25.7	2.3	8.9	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	2045	1130	226	2045	982	475	342	394	126	342	246
V/C Ratio(X)	1.35	1.36	0.49	1.50	1.69	0.05	1.63	1.16	0.86	0.61	0.63	0.78
Avail Cap(c_a), veh/h	203	2045	1130	226	2045	982	475	342	394	129	342	246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.4	31.9	9.2	70.9	31.9	11.1	65.4	61.9	36.9	69.7	65.9	40.0
Incr Delay (d2), s/veh	185.3	167.2	0.3	248.8	311.0	0.0	294.4	98.2	17.6	7.9	3.6	14.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	81.9	7.1	12.1	122.8	0.6	28.4	22.3	11.6	3.1	4.1	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	256.6	199.1	9.6	319.7	342.8	11.1	359.8	160.1	54.6	77.6	69.5	54.5
LnGrp LOS	F	F	A	F	F	B	F	F	D	E	E	D
Approach Vol, veh/h		3612			3838			1511			483	
Approach Delay, s/veh		174.7			336.5			238.8			64.9	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	33.0	14.0	93.0	25.0	19.7	14.0	93.0				
Change Period (Y+Rc), s	5.0	* 5	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	28	* 28	10.0	87.0	21.0	14.0	9.0	* 88				
Max Q Clear Time (g_c+1), s	30.0	30.0	12.0	90.0	23.0	10.9	11.0	90.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	245.1
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 203: River Rd/River Ave & 146th St

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	74	1505	10	174	1449	374	40	67	394	194	43	48
Future Volume (veh/h)	74	1505	10	174	1449	374	40	67	394	194	43	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	80	1636	11	189	1575	407	43	73	428	211	47	52
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	223	1733	854	236	1769	914	362	273	355	321	324	382
Arrive On Green	0.07	0.49	0.49	0.08	0.50	0.50	0.05	0.15	0.15	0.08	0.17	0.17
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	80	1636	11	189	1575	407	43	73	428	211	47	52
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	1.8	38.9	0.3	4.6	35.5	12.9	1.8	3.1	13.0	7.0	1.9	2.3
Cycle Q Clear(g_c), s	1.8	38.9	0.3	4.6	35.5	12.9	1.8	3.1	13.0	7.0	1.9	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	1733	854	236	1769	914	362	273	355	321	324	382
V/C Ratio(X)	0.36	0.94	0.01	0.80	0.89	0.45	0.12	0.27	1.21	0.66	0.15	0.14
Avail Cap(c_a), veh/h	243	1755	864	257	1795	925	411	273	355	321	324	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	21.3	9.3	19.6	19.8	10.5	29.1	33.5	34.2	30.9	30.9	26.2
Incr Delay (d2), s/veh	1.0	10.9	0.0	15.5	5.9	0.3	0.1	0.5	116.6	4.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	16.2	0.1	2.6	13.8	3.8	0.7	1.4	18.6	0.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	32.2	9.3	35.1	25.8	10.8	29.2	34.0	150.8	35.7	31.1	26.4
LnGrp LOS	B	C	A	D	C	B	C	C	F	D	C	C
Approach Vol, veh/h	1727			2171			544			310		
Approach Delay, s/veh	31.5			23.8			125.5			33.4		
Approach LOS	C			C			F			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	18.0	10.9	48.4	8.6	20.4	10.0	49.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	8.0	44.0	7.0	13.0	7.0	45.0					
Max Q Clear Time (g_c+19), s	15.0	6.6	40.9	3.8	4.3	3.8	37.5					
Green Ext Time (p_c), s	0.0	0.0	0.1	2.5	0.0	0.2	0.0	5.9				

Intersection Summary

HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
203: River Rd/River Ave & 146th St

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	1505	10	174	1449	374	40	67	394	194	43	48
Future Volume (veh/h)	74	1505	10	174	1449	374	40	67	394	194	43	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	80	1636	11	189	1575	407	43	73	428	211	47	52
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	223	1733	854	236	1769	914	362	273	355	321	324	382
Arrive On Green	0.07	0.49	0.49	0.08	0.50	0.50	0.05	0.15	0.15	0.08	0.17	0.17
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	80	1636	11	189	1575	407	43	73	428	211	47	52
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	1.8	38.9	0.3	4.6	35.5	12.9	1.8	3.1	13.0	7.0	1.9	2.3
Cycle Q Clear(g_c), s	1.8	38.9	0.3	4.6	35.5	12.9	1.8	3.1	13.0	7.0	1.9	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	1733	854	236	1769	914	362	273	355	321	324	382
V/C Ratio(X)	0.36	0.94	0.01	0.80	0.89	0.45	0.12	0.27	1.21	0.66	0.15	0.14
Avail Cap(c_a), veh/h	243	1755	864	257	1795	925	411	273	355	321	324	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	21.3	9.3	19.6	19.8	10.5	29.1	33.5	34.2	30.9	30.9	26.2
Incr Delay (d2), s/veh	1.0	10.9	0.0	15.5	5.9	0.3	0.1	0.5	116.6	4.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	16.2	0.1	2.6	13.8	3.8	0.7	1.4	18.6	0.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	32.2	9.3	35.1	25.8	10.8	29.2	34.0	150.8	35.7	31.1	26.4
LnGrp LOS	B	C	A	D	C	B	C	C	F	D	C	C
Approach Vol, veh/h	1727			2171			544			310		
Approach Delay, s/veh	31.5			23.8			125.5			33.4		
Approach LOS	C			C			F			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	18.0	10.9	48.4	8.6	20.4	10.0	49.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	8.0	44.0	7.0	13.0	7.0	45.0					
Max Q Clear Time (g_c+19), s	15.0	6.6	40.9	3.8	4.3	3.8	37.5					
Green Ext Time (p_c), s	0.0	0.0	0.1	2.5	0.0	0.2	0.0	5.9				

Intersection Summary

HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
203: River Rd/River Ave & 146th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	2507	14	223	3073	740	51	76	472	356	46	48
Future Volume (veh/h)	76	2507	14	223	3073	740	51	76	472	356	46	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	83	2725	15	242	3340	804	55	83	513	387	50	52
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	128	1998	957	189	2120	1176	233	161	262	259	355	372
Arrive On Green	0.05	0.57	0.57	0.08	0.60	0.60	0.04	0.09	0.09	0.15	0.19	0.19
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	83	2725	15	242	3340	804	55	83	513	387	50	52
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	2.9	85.0	0.6	12.0	90.2	39.5	4.2	6.4	13.0	22.0	3.4	3.9
Cycle Q Clear(g_c), s	2.9	85.0	0.6	12.0	90.2	39.5	4.2	6.4	13.0	22.0	3.4	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	1998	957	189	2120	1176	233	161	262	259	355	372
V/C Ratio(X)	0.65	1.36	0.02	1.28	1.58	0.68	0.24	0.52	1.96	1.49	0.14	0.14
Avail Cap(c_a), veh/h	130	1998	957	189	2120	1176	242	161	262	259	355	372
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	32.5	11.6	54.6	29.9	9.7	58.8	65.5	62.5	64.0	50.4	45.2
Incr Delay (d2), s/veh	10.5	167.1	0.0	159.4	261.1	1.6	0.5	2.8	444.4	241.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	79.8	0.2	12.3	111.6	11.9	1.9	3.1	42.2	27.1	1.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	199.6	11.6	213.9	291.0	11.4	59.3	68.3	506.9	305.3	50.6	45.4
LnGrp LOS	D	F	B	F	F	B	E	E	F	F	D	D
Approach Vol, veh/h	2823			4386			651			489		
Approach Delay, s/veh	194.1			235.5			413.2			251.6		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.0	18.0	16.0	90.0	10.3	33.7	10.8	95.2				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	22.0	13.0	12.0	85.0	7.0	28.0	7.0	90.0				
Max Q Clear Time (g_c+Y), s	24.0	15.0	14.0	87.0	6.2	5.9	4.9	92.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	236.3											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
203: River Rd/River Ave & 146th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	2507	14	223	3073	740	51	76	472	356	46	48
Future Volume (veh/h)	76	2507	14	223	3073	740	51	76	472	356	46	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	83	2725	15	242	3340	804	55	83	513	387	50	52
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	128	1998	957	189	2120	1176	233	161	262	259	355	372
Arrive On Green	0.05	0.57	0.57	0.08	0.60	0.60	0.04	0.09	0.09	0.15	0.19	0.19
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	83	2725	15	242	3340	804	55	83	513	387	50	52
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	2.9	85.0	0.6	12.0	90.2	39.5	4.2	6.4	13.0	22.0	3.4	3.9
Cycle Q Clear(g_c), s	2.9	85.0	0.6	12.0	90.2	39.5	4.2	6.4	13.0	22.0	3.4	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	1998	957	189	2120	1176	233	161	262	259	355	372
V/C Ratio(X)	0.65	1.36	0.02	1.28	1.58	0.68	0.24	0.52	1.96	1.49	0.14	0.14
Avail Cap(c_a), veh/h	130	1998	957	189	2120	1176	242	161	262	259	355	372
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	32.5	11.6	54.6	29.9	9.7	58.8	65.5	62.5	64.0	50.4	45.2
Incr Delay (d2), s/veh	10.5	167.1	0.0	159.4	261.1	1.6	0.5	2.8	444.4	241.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	79.8	0.2	12.3	111.6	11.9	1.9	3.1	42.2	27.1	1.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	199.6	11.6	213.9	291.0	11.4	59.3	68.3	506.9	305.3	50.6	45.4
LnGrp LOS	D	F	B	F	F	B	E	E	F	F	D	D
Approach Vol, veh/h	2823			4386			651			489		
Approach Delay, s/veh	194.1			235.5			413.2			251.6		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.0	18.0	16.0	90.0	10.3	33.7	10.8	95.2				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	22.0	13.0	12.0	85.0	7.0	28.0	7.0	90.0				
Max Q Clear Time (g_c+Y), s	24.0	15.0	14.0	87.0	6.2	5.9	4.9	92.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	236.3											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
 203: River Rd/River Ave & 146th St

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↑	↗↗	↙↙	↑	↗
Traffic Volume (veh/h)	25	2343	10	242	1950	158	28	23	236	507	41	77
Future Volume (veh/h)	25	2343	10	242	1950	158	28	23	236	507	41	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	27	2547	11	263	2120	172	30	25	257	551	45	84
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	113	2004	946	202	2199	1181	229	181	510	436	354	350
Arrive On Green	0.03	0.57	0.57	0.09	0.62	0.62	0.03	0.10	0.10	0.13	0.19	0.19
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	2768	3428	1856	1572
Grp Volume(v), veh/h	27	2547	11	263	2120	172	30	25	257	551	45	84
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1384	1714	1856	1572
Q Serve(g_s), s	0.9	85.0	0.4	13.0	84.9	4.6	2.2	1.8	12.5	19.0	3.0	6.6
Cycle Q Clear(g_c), s	0.9	85.0	0.4	13.0	84.9	4.6	2.2	1.8	12.5	19.0	3.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	2004	946	202	2199	1181	229	181	510	436	354	350
V/C Ratio(X)	0.24	1.27	0.01	1.30	0.96	0.15	0.13	0.14	0.50	1.27	0.13	0.24
Avail Cap(c_a), veh/h	140	2004	946	202	2199	1181	253	186	518	436	354	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	32.3	11.9	54.9	26.6	5.2	57.5	61.8	54.9	65.3	50.2	47.7
Incr Delay (d2), s/veh	1.1	126.1	0.0	167.8	11.9	0.1	0.3	0.3	0.8	136.5	0.2	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	68.5	0.1	16.7	35.7	1.3	1.0	0.9	4.3	16.5	1.4	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.0	158.3	11.9	222.7	38.5	5.3	57.7	62.1	55.6	201.8	50.3	48.1
LnGrp LOS	D	F	B	F	D	A	E	E	E	F	D	D
Approach Vol, veh/h		2585			2555			312			680	
Approach Delay, s/veh		156.4			55.2			56.4			172.8	
Approach LOS		F			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	19.6	17.0	90.0	9.0	33.6	8.7	98.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	19.0	15.0	13.0	85.0	7.0	27.0	7.0	91.0				
Max Q Clear Time (g_c+Y1), s	21.0	14.5	15.0	87.0	4.2	8.6	2.9	86.9				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.4	0.0	3.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											111.0	
HCM 6th LOS											F	

HCM 6th Signalized Intersection Summary  
 203: River Rd/River Ave & 146th St

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	2507	14	223	3073	740	51	76	472	356	46	48
Future Volume (veh/h)	76	2507	14	223	3073	740	51	76	472	356	46	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	83	2725	15	242	3340	804	55	83	513	387	50	52
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	128	2233	1062	178	2332	1176	233	161	443	297	244	278
Arrive On Green	0.05	0.63	0.63	0.07	0.66	0.66	0.04	0.09	0.09	0.09	0.13	0.13
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	2768	3428	1856	1572
Grp Volume(v), veh/h	83	2725	15	242	3340	804	55	83	513	387	50	52
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1384	1714	1856	1572
Q Serve(g_s), s	2.8	95.0	0.5	11.0	99.2	39.5	4.2	6.4	13.0	13.0	3.6	4.2
Cycle Q Clear(g_c), s	2.8	95.0	0.5	11.0	99.2	39.5	4.2	6.4	13.0	13.0	3.6	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	2233	1062	178	2332	1176	233	161	443	297	244	278
V/C Ratio(X)	0.65	1.22	0.01	1.36	1.43	0.68	0.24	0.52	1.16	1.30	0.21	0.19
Avail Cap(c_a), veh/h	130	2233	1062	178	2332	1176	242	161	443	297	244	278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	27.5	8.0	56.7	25.4	9.7	58.8	65.5	63.0	68.5	58.2	52.6
Incr Delay (d2), s/veh	10.5	103.5	0.0	195.1	197.0	1.6	0.5	2.8	93.9	158.5	0.4	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	67.7	0.2	16.1	100.2	11.9	1.9	3.1	14.1	12.2	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.5	131.0	8.0	251.7	222.4	11.4	59.3	68.3	156.9	227.0	58.6	52.9
LnGrp LOS	D	F	A	F	F	B	E	E	F	F	E	D
Approach Vol, veh/h		2823			4386			651			489	
Approach Delay, s/veh		128.0			185.3			137.4			191.3	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	18.0	15.0	100.0	10.3	24.7	10.8	104.2				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	13.0	13.0	11.0	95.0	7.0	19.0	7.0	99.0				
Max Q Clear Time (g_c+1/5), s	15.0	15.0	13.0	97.0	6.2	6.2	4.8	101.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh												162.6
HCM 6th LOS												F

HCM 6th Signalized Intersection Summary  
 204: Cherry Tree Ave/Cherry Tree Rd & 146th St

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	1932	28	23	1591	194	39	18	4	118	18	72
Future Volume (veh/h)	82	1932	28	23	1591	194	39	18	4	118	18	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	89	2100	30	25	1729	211	42	20	4	128	20	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	271	2324	33	179	2175	970	199	215	43	267	47	185
Arrive On Green	0.07	0.65	0.65	0.04	0.62	0.62	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1767	3558	51	1767	3526	1572	1287	1501	300	1376	331	1292
Grp Volume(v), veh/h	89	1038	1092	25	1729	211	42	0	24	128	0	98
Grp Sat Flow(s),veh/h/ln	1767	1763	1846	1767	1763	1572	1287	0	1801	1376	0	1623
Q Serve(g_s), s	1.3	41.6	42.1	0.4	30.9	5.0	2.6	0.0	1.0	7.5	0.0	4.6
Cycle Q Clear(g_c), s	1.3	41.6	42.1	0.4	30.9	5.0	7.2	0.0	1.0	8.4	0.0	4.6
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.17	1.00		0.80
Lane Grp Cap(c), veh/h	271	1151	1206	179	2175	970	199	0	258	267	0	232
V/C Ratio(X)	0.33	0.90	0.91	0.14	0.79	0.22	0.21	0.00	0.09	0.48	0.00	0.42
Avail Cap(c_a), veh/h	290	1199	1256	262	2398	1069	199	0	258	267	0	232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	12.3	12.3	15.6	12.1	7.1	36.0	0.0	31.2	34.9	0.0	32.8
Incr Delay (d2), s/veh	0.7	9.3	9.4	0.4	1.8	0.1	0.5	0.0	0.2	1.3	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	14.4	15.2	0.2	9.6	1.3	0.8	0.0	0.4	2.5	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	21.6	21.7	16.0	13.8	7.2	36.6	0.0	31.3	36.2	0.0	34.0
LnGrp LOS	B	C	C	B	B	A	D	A	C	D	A	C
Approach Vol, veh/h		2219			1965			66			226	
Approach Delay, s/veh		21.4			13.2			34.7			35.2	
Approach LOS		C			B			C			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0	7.1	59.7		17.0	10.1	56.7				
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		12.0	7.0	57.0		12.0	7.0	57.0				
Max Q Clear Time (g_c+I1), s		9.2	2.4	44.1		10.4	3.3	32.9				
Green Ext Time (p_c), s		0.0	0.0	10.6		0.1	0.1	14.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												18.7
HCM 6th LOS												B



HCM 6th Signalized Intersection Summary  
 204: Cherry Tree Ave/Cherry Tree Rd & 146th St

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	
Traffic Volume (veh/h)	82	1932	28	23	1591	194	39	18	4	118	18	72
Future Volume (veh/h)	82	1932	28	23	1591	194	39	18	4	118	18	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	89	2100	30	25	1729	211	42	20	4	128	20	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	271	2324	33	179	2175	970	199	215	43	267	47	185
Arrive On Green	0.07	0.65	0.65	0.04	0.62	0.62	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1767	3558	51	1767	3526	1572	1287	1501	300	1376	331	1292
Grp Volume(v), veh/h	89	1038	1092	25	1729	211	42	0	24	128	0	98
Grp Sat Flow(s),veh/h/ln	1767	1763	1846	1767	1763	1572	1287	0	1801	1376	0	1623
Q Serve(g_s), s	1.3	41.6	42.1	0.4	30.9	5.0	2.6	0.0	1.0	7.5	0.0	4.6
Cycle Q Clear(g_c), s	1.3	41.6	42.1	0.4	30.9	5.0	7.2	0.0	1.0	8.4	0.0	4.6
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.17	1.00		0.80
Lane Grp Cap(c), veh/h	271	1151	1206	179	2175	970	199	0	258	267	0	232
V/C Ratio(X)	0.33	0.90	0.91	0.14	0.79	0.22	0.21	0.00	0.09	0.48	0.00	0.42
Avail Cap(c_a), veh/h	290	1199	1256	262	2398	1069	199	0	258	267	0	232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	12.3	12.3	15.6	12.1	7.1	36.0	0.0	31.2	34.9	0.0	32.8
Incr Delay (d2), s/veh	0.7	9.3	9.4	0.4	1.8	0.1	0.5	0.0	0.2	1.3	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	14.4	15.2	0.2	9.6	1.3	0.8	0.0	0.4	2.5	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	21.6	21.7	16.0	13.8	7.2	36.6	0.0	31.3	36.2	0.0	34.0
LnGrp LOS	B	C	C	B	B	A	D	A	C	D	A	C
Approach Vol, veh/h		2219			1965			66			226	
Approach Delay, s/veh		21.4			13.2			34.7			35.2	
Approach LOS		C			B			C			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0	7.1	59.7		17.0	10.1	56.7				
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		12.0	7.0	57.0		12.0	7.0	57.0				
Max Q Clear Time (g_c+I1), s		9.2	2.4	44.1		10.4	3.3	32.9				
Green Ext Time (p_c), s		0.0	0.0	10.6		0.1	0.1	14.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				18.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
 204: Cherry Tree Ave/Cherry Tree Rd & 146th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	2922	29	38	3192	213	41	18	14	126	19	72
Future Volume (veh/h)	82	2922	29	38	3192	213	41	18	14	126	19	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	89	3176	32	41	3470	232	45	20	15	137	21	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	129	2795	28	116	2730	1217	83	85	64	140	30	111
Arrive On Green	0.05	0.78	0.78	0.04	0.77	0.77	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1767	3576	36	1767	3526	1572	1286	984	738	1363	345	1280
Grp Volume(v), veh/h	89	1563	1645	41	3470	232	45	0	35	137	0	99
Grp Sat Flow(s),veh/h/ln	1767	1763	1849	1767	1763	1572	1286	0	1723	1363	0	1625
Q Serve(g_s), s	3.3	117.1	117.1	0.7	116.0	5.9	4.1	0.0	2.8	10.2	0.0	8.9
Cycle Q Clear(g_c), s	3.3	117.1	117.1	0.7	116.0	5.9	13.0	0.0	2.8	13.0	0.0	8.9
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.43	1.00		0.79
Lane Grp Cap(c), veh/h	129	1378	1445	116	2730	1217	83	0	149	140	0	141
V/C Ratio(X)	0.69	1.13	1.14	0.35	1.27	0.19	0.54	0.00	0.23	0.98	0.00	0.70
Avail Cap(c_a), veh/h	131	1378	1445	131	2730	1217	83	0	149	140	0	141
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.3	16.4	16.4	47.6	16.9	4.5	73.3	0.0	63.8	71.5	0.0	66.5
Incr Delay (d2), s/veh	14.3	70.0	71.2	1.8	125.1	0.1	6.8	0.0	0.8	68.2	0.0	14.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	61.8	65.3	1.2	82.8	1.6	1.9	0.0	1.3	7.9	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.6	86.4	87.6	49.4	142.0	4.6	80.1	0.0	64.6	139.7	0.0	81.0
LnGrp LOS	E	F	F	D	F	A	F	A	E	F	A	F
Approach Vol, veh/h	3297			3743			80			236		
Approach Delay, s/veh	86.5			132.5			73.3			115.1		
Approach LOS	F			F			E			F		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	18.0		9.7		122.1		18.0		10.8		121.0	
Change Period (Y+Rc), s	5.0		4.0		5.0		5.0		4.0		5.0	
Max Green Setting (Gmax), s	13.0		7.0		116.0		13.0		7.0		116.0	
Max Q Clear Time (g_c+1), s	15.0		2.7		119.1		15.0		5.3		118.0	
Green Ext Time (p_c), s	0.0		0.0		0.0		0.0		0.0		0.0	
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				110.7								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary  
 204: Cherry Tree Ave/Cherry Tree Rd & 146th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	
Traffic Volume (veh/h)	82	2922	29	38	3192	213	41	18	14	126	19	72
Future Volume (veh/h)	82	2922	29	38	3192	213	41	18	14	126	19	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	89	3176	32	41	3470	232	45	20	15	137	21	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	129	2795	28	116	2730	1217	83	85	64	140	30	111
Arrive On Green	0.05	0.78	0.78	0.04	0.77	0.77	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1767	3576	36	1767	3526	1572	1286	984	738	1363	345	1280
Grp Volume(v), veh/h	89	1563	1645	41	3470	232	45	0	35	137	0	99
Grp Sat Flow(s),veh/h/ln	1767	1763	1849	1767	1763	1572	1286	0	1723	1363	0	1625
Q Serve(g_s), s	3.3	117.1	117.1	0.7	116.0	5.9	4.1	0.0	2.8	10.2	0.0	8.9
Cycle Q Clear(g_c), s	3.3	117.1	117.1	0.7	116.0	5.9	13.0	0.0	2.8	13.0	0.0	8.9
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.43	1.00		0.79
Lane Grp Cap(c), veh/h	129	1378	1445	116	2730	1217	83	0	149	140	0	141
V/C Ratio(X)	0.69	1.13	1.14	0.35	1.27	0.19	0.54	0.00	0.23	0.98	0.00	0.70
Avail Cap(c_a), veh/h	131	1378	1445	131	2730	1217	83	0	149	140	0	141
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.3	16.4	16.4	47.6	16.9	4.5	73.3	0.0	63.8	71.5	0.0	66.5
Incr Delay (d2), s/veh	14.3	70.0	71.2	1.8	125.1	0.1	6.8	0.0	0.8	68.2	0.0	14.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	61.8	65.3	1.2	82.8	1.6	1.9	0.0	1.3	7.9	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.6	86.4	87.6	49.4	142.0	4.6	80.1	0.0	64.6	139.7	0.0	81.0
LnGrp LOS	E	F	F	D	F	A	F	A	E	F	A	F
Approach Vol, veh/h	3297			3743			80			236		
Approach Delay, s/veh	86.5			132.5			73.3			115.1		
Approach LOS	F			F			E			F		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	18.0		9.7		122.1		18.0		10.8		121.0	
Change Period (Y+Rc), s	5.0		4.0		5.0		5.0		4.0		5.0	
Max Green Setting (Gmax), s	13.0		7.0		116.0		13.0		7.0		116.0	
Max Q Clear Time (g_c+I1), s	15.0		2.7		119.1		15.0		5.3		118.0	
Green Ext Time (p_c), s	0.0		0.0		0.0		0.0		0.0		0.0	
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	110.7											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
 204: Cherry Tree Ave/Cherry Tree Rd & 146th St

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↖	↖	↕		↖	↕	
Traffic Volume (veh/h)	10	2384	1	5	2360	50	38	3	21	200	43	100
Future Volume (veh/h)	10	2384	1	5	2360	50	38	3	21	200	43	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	2591	1	5	2565	54	41	3	23	217	47	109
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	80	2665	1	74	2568	1145	135	29	224	248	78	182
Arrive On Green	0.02	0.74	0.74	0.01	0.73	0.73	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1767	3617	1	1767	3526	1572	1221	185	1416	1374	497	1152
Grp Volume(v), veh/h	11	1263	1329	5	2565	54	41	0	26	217	0	156
Grp Sat Flow(s),veh/h/ln	1767	1763	1855	1767	1763	1572	1221	0	1601	1374	0	1648
Q Serve(g_s), s	0.2	96.7	96.7	0.1	105.5	1.4	4.7	0.0	2.0	21.0	0.0	12.8
Cycle Q Clear(g_c), s	0.2	96.7	96.7	0.1	105.5	1.4	17.5	0.0	2.0	23.0	0.0	12.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.88	1.00		0.70
Lane Grp Cap(c), veh/h	80	1299	1367	74	2568	1145	135	0	253	248	0	261
V/C Ratio(X)	0.14	0.97	0.97	0.07	1.00	0.05	0.30	0.00	0.10	0.88	0.00	0.60
Avail Cap(c_a), veh/h	135	1299	1367	143	2568	1145	135	0	253	248	0	261
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	17.8	17.8	37.7	19.7	5.6	65.1	0.0	52.4	63.2	0.0	57.0
Incr Delay (d2), s/veh	0.8	18.6	18.0	0.4	17.5	0.0	1.3	0.0	0.2	27.8	0.0	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	38.2	40.0	0.1	41.2	0.4	1.5	0.0	0.8	10.0	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.1	36.4	35.8	38.1	37.1	5.6	66.4	0.0	52.6	91.0	0.0	60.7
LnGrp LOS	D	D	D	D	D	A	E		D	F		E
Approach Vol, veh/h		2603			2624			67				373
Approach Delay, s/veh		36.1			36.5			61.0				78.3
Approach LOS		D			D			E				E
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.0	5.3	112.2		28.0	6.5	111.0				
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		23.0	7.0	106.0		23.0	7.0	106.0				
Max Q Clear Time (g_c+I1), s		19.5	2.1	98.7		25.0	2.2	107.5				
Green Ext Time (p_c), s		0.0	0.0	6.9		0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh												39.4
HCM 6th LOS												D

HCM 6th Signalized Intersection Summary  
 204: Cherry Tree Ave/Cherry Tree Rd & 146th St

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖		↖	↖	
Traffic Volume (veh/h)	82	2922	29	38	3192	213	41	18	14	126	19	72
Future Volume (veh/h)	82	2922	29	38	3192	213	41	18	14	126	19	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	89	3176	32	41	3470	232	45	20	15	137	21	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	129	2795	28	116	2730	1217	83	85	64	140	30	111
Arrive On Green	0.05	0.78	0.78	0.04	0.77	0.77	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1767	3576	36	1767	3526	1572	1286	984	738	1363	345	1280
Grp Volume(v), veh/h	89	1563	1645	41	3470	232	45	0	35	137	0	99
Grp Sat Flow(s),veh/h/ln	1767	1763	1849	1767	1763	1572	1286	0	1723	1363	0	1625
Q Serve(g_s), s	3.3	117.1	117.1	0.7	116.0	5.9	4.1	0.0	2.8	10.2	0.0	8.9
Cycle Q Clear(g_c), s	3.3	117.1	117.1	0.7	116.0	5.9	13.0	0.0	2.8	13.0	0.0	8.9
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.43	1.00		0.79
Lane Grp Cap(c), veh/h	129	1378	1445	116	2730	1217	83	0	149	140	0	141
V/C Ratio(X)	0.69	1.13	1.14	0.35	1.27	0.19	0.54	0.00	0.23	0.98	0.00	0.70
Avail Cap(c_a), veh/h	131	1378	1445	131	2730	1217	83	0	149	140	0	141
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.3	16.4	16.4	47.6	16.9	4.5	73.3	0.0	63.8	71.5	0.0	66.5
Incr Delay (d2), s/veh	14.3	70.0	71.2	1.8	125.1	0.1	6.8	0.0	0.8	68.2	0.0	14.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	61.8	65.3	1.2	82.8	1.6	1.9	0.0	1.3	7.9	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	68.6	86.4	87.6	49.4	142.0	4.6	80.1	0.0	64.6	139.7	0.0	81.0
LnGrp LOS	E	F	F	D	F	A	F		E	F		F
Approach Vol, veh/h		3297			3743			80				236
Approach Delay, s/veh		86.5			132.5			73.3				115.1
Approach LOS		F			F			E				F
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.0	9.7	122.1		18.0	10.8	121.0				
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0				
Max Green Setting (Gmax), s		13.0	7.0	116.0		13.0	7.0	116.0				
Max Q Clear Time (g_c+I1), s		15.0	2.7	119.1		15.0	5.3	118.0				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh					110.7							
HCM 6th LOS					F							

HCM 6th Signalized Intersection Summary  
 205: Hazel Dell Rd & Newark Dr/Edenshall Ln

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖		↗	↕	↖	↗	↕	↖
Traffic Volume (veh/h)	0	0	0	105	0	116	0	1224	86	142	745	0
Future Volume (veh/h)	0	0	0	105	0	116	0	1224	86	142	745	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	0	0	114	0	126	0	1330	93	154	810	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	329	0	421	0	279	108	2374	1059	285	2374	1059
Arrive On Green	0.00	0.00	0.00	0.18	0.00	0.18	0.00	0.67	0.67	0.67	0.67	0.00
Sat Flow, veh/h	0	1856	0	1767	0	1572	668	3526	1572	374	3526	1572
Grp Volume(v), veh/h	0	0	0	114	0	126	0	1330	93	154	810	0
Grp Sat Flow(s),veh/h/ln	0	1856	0	1767	0	1572	668	1763	1572	374	1763	1572
Q Serve(g_s), s	0.0	0.0	0.0	3.8	0.0	4.8	0.0	13.2	1.4	24.6	6.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.8	0.0	4.8	0.0	13.2	1.4	37.8	6.5	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	329	0	421	0	279	108	2374	1059	285	2374	1059
V/C Ratio(X)	0.00	0.00	0.00	0.27	0.00	0.45	0.00	0.56	0.09	0.54	0.34	0.00
Avail Cap(c_a), veh/h	0	416	0	504	0	352	157	2633	1175	313	2633	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	24.2	0.0	24.6	0.0	5.7	3.8	15.7	4.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	1.1	0.0	0.2	0.0	1.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.6	0.0	1.8	0.0	2.7	0.3	1.7	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	24.6	0.0	25.8	0.0	5.9	3.8	17.2	4.7	0.0
LnGrp LOS	A	A	A	C	A	C	A	A	A	B	A	A
Approach Vol, veh/h		0		240				1423			964	
Approach Delay, s/veh		0.0		25.2				5.8			6.7	
Approach LOS				C				A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.1		16.9		50.1		16.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		50.0		15.0		50.0		15.0				
Max Q Clear Time (g_c+I1), s		15.2		0.0		39.8		6.8				
Green Ext Time (p_c), s		12.1		0.0		5.2		0.7				

Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary  
 205: Hazel Dell Rd & Newark Dr/Edenshall Ln

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘		↗	↕	↗	↗	↕	↗
Traffic Volume (veh/h)	0	0	0	105	0	116	0	1224	86	142	745	0
Future Volume (veh/h)	0	0	0	105	0	116	0	1224	86	142	745	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	0	0	114	0	126	0	1330	93	154	810	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	329	0	421	0	279	108	2374	1059	285	2374	1059
Arrive On Green	0.00	0.00	0.00	0.18	0.00	0.18	0.00	0.67	0.67	0.67	0.67	0.00
Sat Flow, veh/h	0	1856	0	1767	0	1572	668	3526	1572	374	3526	1572
Grp Volume(v), veh/h	0	0	0	114	0	126	0	1330	93	154	810	0
Grp Sat Flow(s),veh/h/ln	0	1856	0	1767	0	1572	668	1763	1572	374	1763	1572
Q Serve(g_s), s	0.0	0.0	0.0	3.8	0.0	4.8	0.0	13.2	1.4	24.6	6.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.8	0.0	4.8	0.0	13.2	1.4	37.8	6.5	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	329	0	421	0	279	108	2374	1059	285	2374	1059
V/C Ratio(X)	0.00	0.00	0.00	0.27	0.00	0.45	0.00	0.56	0.09	0.54	0.34	0.00
Avail Cap(c_a), veh/h	0	416	0	504	0	352	157	2633	1175	313	2633	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	24.2	0.0	24.6	0.0	5.7	3.8	15.7	4.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	1.1	0.0	0.2	0.0	1.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.6	0.0	1.8	0.0	2.7	0.3	1.7	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	24.6	0.0	25.8	0.0	5.9	3.8	17.2	4.7	0.0
LnGrp LOS	A	A	A	C	A	C	A	A	A	B	A	A
Approach Vol, veh/h		0		240				1423			964	
Approach Delay, s/veh		0.0		25.2				5.8			6.7	
Approach LOS				C				A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.1		16.9		50.1		16.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		50.0		15.0		50.0		15.0				
Max Q Clear Time (g_c+I1), s		15.2		0.0		39.8		6.8				
Green Ext Time (p_c), s		12.1		0.0		5.2		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				7.9								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary  
 205: Hazel Dell Rd & Newark Dr/Edenshall Ln

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘		↗	↕	↘	↗	↕	↘
Traffic Volume (veh/h)	0	0	0	105	0	116	0	2266	86	142	1235	0
Future Volume (veh/h)	0	0	0	105	0	116	0	2266	86	142	1235	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	0	0	114	0	126	0	2463	93	154	1342	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	255	0	326	0	216	83	2635	1175	103	2635	1175
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.14	0.00	0.75	0.75	0.75	0.75	0.00
Sat Flow, veh/h	0	1856	0	1767	0	1572	404	3526	1572	123	3526	1572
Grp Volume(v), veh/h	0	0	0	114	0	126	0	2463	93	154	1342	0
Grp Sat Flow(s),veh/h/ln	0	1856	0	1767	0	1572	404	1763	1572	123	1763	1572
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	6.5	0.0	50.9	1.4	14.1	13.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	5.2	0.0	6.5	0.0	50.9	1.4	65.0	13.5	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	255	0	326	0	216	83	2635	1175	103	2635	1175
V/C Ratio(X)	0.00	0.00	0.00	0.35	0.00	0.58	0.00	0.93	0.08	1.50	0.51	0.00
Avail Cap(c_a), veh/h	0	320	0	388	0	271	83	2635	1175	103	2635	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	34.6	0.0	35.2	0.0	9.2	2.9	42.1	4.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	2.5	0.0	7.1	0.0	268.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.3	0.0	2.6	0.0	13.0	0.3	9.8	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	35.2	0.0	37.6	0.0	16.3	3.0	310.6	4.6	0.0
LnGrp LOS	A	A	A	D	A	D	A	B	A	F	A	A
Approach Vol, veh/h		0			240			2556			1496	
Approach Delay, s/veh		0.0			36.5			15.8			36.1	
Approach LOS					D			B			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		17.0		70.0		17.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		65.0		15.0		65.0		15.0				
Max Q Clear Time (g_c+I1), s		52.9		0.0		67.0		8.5				
Green Ext Time (p_c), s		11.0		0.0		0.0		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				24.0								
HCM 6th LOS				C								



HCM 6th Signalized Intersection Summary  
 205: Hazel Dell Rd & Newark Dr/Edenshall Ln

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘		↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	0	0	0	105	0	116	0	2266	86	142	1235	0
Future Volume (veh/h)	0	0	0	105	0	116	0	2266	86	142	1235	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	0	0	114	0	126	0	2463	93	154	1342	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	255	0	326	0	216	83	2635	1175	103	2635	1175
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.14	0.00	0.75	0.75	0.75	0.75	0.00
Sat Flow, veh/h	0	1856	0	1767	0	1572	404	3526	1572	123	3526	1572
Grp Volume(v), veh/h	0	0	0	114	0	126	0	2463	93	154	1342	0
Grp Sat Flow(s),veh/h/ln	0	1856	0	1767	0	1572	404	1763	1572	123	1763	1572
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	6.5	0.0	50.9	1.4	14.1	13.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	5.2	0.0	6.5	0.0	50.9	1.4	65.0	13.5	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	255	0	326	0	216	83	2635	1175	103	2635	1175
V/C Ratio(X)	0.00	0.00	0.00	0.35	0.00	0.58	0.00	0.93	0.08	1.50	0.51	0.00
Avail Cap(c_a), veh/h	0	320	0	388	0	271	83	2635	1175	103	2635	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	34.6	0.0	35.2	0.0	9.2	2.9	42.1	4.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	2.5	0.0	7.1	0.0	268.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.3	0.0	2.6	0.0	13.0	0.3	9.8	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	35.2	0.0	37.6	0.0	16.3	3.0	310.6	4.6	0.0
LnGrp LOS	A	A	A	D	A	D	A	B	A	F	A	A
Approach Vol, veh/h		0		240			2556			1496		
Approach Delay, s/veh		0.0		36.5			15.8			36.1		
Approach LOS				D			B			D		
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		17.0		70.0		17.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		65.0		15.0		65.0		15.0				
Max Q Clear Time (g_c+I1), s		52.9		0.0		67.0		8.5				
Green Ext Time (p_c), s		11.0		0.0		0.0		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				24.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
206: Hazel Dell Rd & 146th St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	342	1526	256	137	1019	467	234	647	126	344	403	219
Future Volume (veh/h)	342	1526	256	137	1019	467	234	647	126	344	403	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	372	1659	278	149	1108	508	254	703	137	374	438	238
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	374	1557	899	163	1146	747	373	705	406	326	775	621
Arrive On Green	0.17	0.44	0.44	0.06	0.32	0.32	0.13	0.20	0.20	0.15	0.22	0.22
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	372	1659	278	149	1108	508	254	703	137	374	438	238
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	20.8	53.0	11.0	6.8	37.1	30.1	13.5	23.9	8.5	18.0	13.3	12.9
Cycle Q Clear(g_c), s	20.8	53.0	11.0	6.8	37.1	30.1	13.5	23.9	8.5	18.0	13.3	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	1557	899	163	1146	747	373	705	406	326	775	621
V/C Ratio(X)	0.99	1.07	0.31	0.91	0.97	0.68	0.68	1.00	0.34	1.15	0.56	0.38
Avail Cap(c_a), veh/h	374	1557	899	163	1146	747	393	705	406	326	775	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	33.5	13.4	31.3	39.9	24.4	32.2	48.0	36.2	34.9	41.7	25.9
Incr Delay (d2), s/veh	44.9	42.5	0.2	46.1	19.1	2.5	4.5	33.1	0.5	96.6	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	30.2	3.7	4.8	18.3	11.0	6.0	13.4	3.2	16.2	5.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.4	76.0	13.6	77.4	59.0	26.9	36.7	81.1	36.6	131.5	42.6	26.3
LnGrp LOS	F	F	B	E	E	C	D	F	D	F	D	C
Approach Vol, veh/h		2309			1765			1094			1050	
Approach Delay, s/veh		69.5			51.3			65.2			70.6	
Approach LOS		E			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.0	29.0	11.0	58.0	19.6	31.4	25.0	44.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	24.0	7.0	53.0	17.0	25.0	21.0	39.0				
Max Q Clear Time (g_c+Tb), s	20.0	25.9	8.8	55.0	15.5	15.3	22.8	39.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	2.4	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											63.8	
HCM 6th LOS											E	

HCM 6th Signalized Intersection Summary  
 206: Hazel Dell Rd & 146th St

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	342	1526	256	137	1019	467	234	647	126	344	403	219
Future Volume (veh/h)	342	1526	256	137	1019	467	234	647	126	344	403	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	372	1659	278	149	1108	508	254	703	137	374	438	238
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	374	1557	899	163	1146	747	373	705	406	326	775	621
Arrive On Green	0.17	0.44	0.44	0.06	0.32	0.32	0.13	0.20	0.20	0.15	0.22	0.22
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	372	1659	278	149	1108	508	254	703	137	374	438	238
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	20.8	53.0	11.0	6.8	37.1	30.1	13.5	23.9	8.5	18.0	13.3	12.9
Cycle Q Clear(g_c), s	20.8	53.0	11.0	6.8	37.1	30.1	13.5	23.9	8.5	18.0	13.3	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	1557	899	163	1146	747	373	705	406	326	775	621
V/C Ratio(X)	0.99	1.07	0.31	0.91	0.97	0.68	0.68	1.00	0.34	1.15	0.56	0.38
Avail Cap(c_a), veh/h	374	1557	899	163	1146	747	393	705	406	326	775	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	33.5	13.4	31.3	39.9	24.4	32.2	48.0	36.2	34.9	41.7	25.9
Incr Delay (d2), s/veh	44.9	42.5	0.2	46.1	19.1	2.5	4.5	33.1	0.5	96.6	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	30.2	3.7	4.8	18.3	11.0	6.0	13.4	3.2	16.2	5.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.4	76.0	13.6	77.4	59.0	26.9	36.7	81.1	36.6	131.5	42.6	26.3
LnGrp LOS	F	F	B	E	E	C	D	F	D	F	D	C
Approach Vol, veh/h		2309			1765			1094			1050	
Approach Delay, s/veh		69.5			51.3			65.2			70.6	
Approach LOS		E			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.0	29.0	11.0	58.0	19.6	31.4	25.0	44.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	24.0	7.0	53.0	17.0	25.0	21.0	39.0				
Max Q Clear Time (g_c+Y), s	20.0	25.9	8.8	55.0	15.5	15.3	22.8	39.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	2.4	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			63.8									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary  
206: Hazel Dell Rd & 146th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	404	1914	256	313	1508	1405	234	689	281	792	422	242
Future Volume (veh/h)	404	1914	256	313	1508	1405	234	689	281	792	422	242
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	439	2080	278	340	1639	1527	254	749	305	861	459	263
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	259	1199	744	200	1081	902	400	564	430	471	1034	692
Arrive On Green	0.15	0.34	0.34	0.11	0.31	0.31	0.13	0.16	0.16	0.27	0.29	0.29
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	439	2080	278	340	1639	1527	254	749	305	861	459	263
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	22.0	51.0	17.0	17.0	46.0	46.0	17.8	24.0	24.0	40.0	15.9	16.9
Cycle Q Clear(g_c), s	22.0	51.0	17.0	17.0	46.0	46.0	17.8	24.0	24.0	40.0	15.9	16.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	1199	744	200	1081	902	400	564	430	471	1034	692
V/C Ratio(X)	1.69	1.74	0.37	1.70	1.52	1.69	0.64	1.33	0.71	1.83	0.44	0.38
Avail Cap(c_a), veh/h	259	1199	744	200	1081	902	435	564	430	471	1034	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.0	49.5	25.3	66.5	52.0	32.0	43.7	63.0	49.1	55.0	43.1	28.3
Incr Delay (d2), s/veh	328.3	334.4	0.3	334.5	237.0	317.0	2.7	159.5	5.4	380.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.3	77.4	6.3	26.1	55.3	109.4	8.0	23.0	10.7	67.1	6.9	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	392.3	383.9	25.6	401.0	289.0	349.0	46.4	222.5	54.5	435.4	43.4	28.6
LnGrp LOS	F	F	C	F	F	F	D	F	D	F	D	C
Approach Vol, veh/h		2797			3506			1308			1583	
Approach Delay, s/veh		349.6			326.0			149.1			254.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	29.0	21.0	56.0	24.0	49.0	26.0	51.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	40.0	24.0	17.0	51.0	23.0	41.0	22.0	46.0				
Max Q Clear Time (g_c+1/2C), s	40.0	26.0	19.0	53.0	19.8	18.9	24.0	48.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	3.6	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			295.6									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
206: Hazel Dell Rd & 146th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	404	1914	256	313	1508	1405	234	689	281	792	422	242
Future Volume (veh/h)	404	1914	256	313	1508	1405	234	689	281	792	422	242
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	439	2080	278	340	1639	1527	254	749	305	861	459	263
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	259	1199	744	200	1081	902	400	564	430	471	1034	692
Arrive On Green	0.15	0.34	0.34	0.11	0.31	0.31	0.13	0.16	0.16	0.27	0.29	0.29
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	439	2080	278	340	1639	1527	254	749	305	861	459	263
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	22.0	51.0	17.0	17.0	46.0	46.0	17.8	24.0	24.0	40.0	15.9	16.9
Cycle Q Clear(g_c), s	22.0	51.0	17.0	17.0	46.0	46.0	17.8	24.0	24.0	40.0	15.9	16.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	1199	744	200	1081	902	400	564	430	471	1034	692
V/C Ratio(X)	1.69	1.74	0.37	1.70	1.52	1.69	0.64	1.33	0.71	1.83	0.44	0.38
Avail Cap(c_a), veh/h	259	1199	744	200	1081	902	435	564	430	471	1034	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.0	49.5	25.3	66.5	52.0	32.0	43.7	63.0	49.1	55.0	43.1	28.3
Incr Delay (d2), s/veh	328.3	334.4	0.3	334.5	237.0	317.0	2.7	159.5	5.4	380.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.3	77.4	6.3	26.1	55.3	109.4	8.0	23.0	10.7	67.1	6.9	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	392.3	383.9	25.6	401.0	289.0	349.0	46.4	222.5	54.5	435.4	43.4	28.6
LnGrp LOS	F	F	C	F	F	F	D	F	D	F	D	C
Approach Vol, veh/h	2797			3506			1308			1583		
Approach Delay, s/veh	349.6			326.0			149.1			254.2		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	29.0	21.0	56.0	24.0	49.0	26.0	51.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	40.0	24.0	17.0	51.0	23.0	41.0	22.0	46.0				
Max Q Clear Time (g_c+Rc), s	42.0	26.0	19.0	53.0	19.8	18.9	24.0	48.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	3.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	295.6
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
208: Howe Rd & 146th St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	1567	69	37	1001	36	23	178	39	97	144	79
Future Volume (veh/h)	188	1567	69	37	1001	36	23	178	39	97	144	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	204	1703	75	40	1088	39	25	193	42	105	157	86
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	244	1752	781	91	1447	646	286	277	235	286	354	300
Arrive On Green	0.14	0.50	0.50	0.05	0.41	0.41	0.04	0.15	0.15	0.08	0.19	0.19
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	204	1703	75	40	1088	39	25	193	42	105	157	86
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	9.1	37.8	2.0	1.8	21.2	1.2	0.9	7.9	1.9	3.8	6.0	3.8
Cycle Q Clear(g_c), s	9.1	37.8	2.0	1.8	21.2	1.2	0.9	7.9	1.9	3.8	6.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	244	1752	781	91	1447	646	286	277	235	286	354	300
V/C Ratio(X)	0.84	0.97	0.10	0.44	0.75	0.06	0.09	0.70	0.18	0.37	0.44	0.29
Avail Cap(c_a), veh/h	312	1753	782	187	1503	670	407	346	293	333	354	300
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	19.7	10.7	37.0	20.2	14.3	27.1	32.5	29.9	25.0	28.8	27.9
Incr Delay (d2), s/veh	14.5	15.4	0.1	3.3	2.1	0.0	0.1	4.4	0.4	0.8	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	16.4	0.6	0.8	8.0	0.4	0.4	3.8	0.7	1.6	2.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	35.0	10.7	40.4	22.3	14.4	27.2	36.9	30.3	25.8	29.7	28.4
LnGrp LOS	D	D	B	D	C	B	C	D	C	C	C	C
Approach Vol, veh/h	1982			1167			260			348		
Approach Delay, s/veh	35.5			22.7			34.9			28.2		
Approach LOS	D			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	17.0	8.1	45.0	7.0	20.3	15.1	38.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	15.0	8.5	40.0	8.5	15.0	14.2	34.3				
Max Q Clear Time (g_c+1), s	9.9	9.9	3.8	39.8	2.9	8.0	11.1	23.2				
Green Ext Time (p_c), s	0.1	0.5	0.0	0.2	0.0	0.6	0.2	5.3				

Intersection Summary

HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

# HCM 6th Signalized Intersection Summary

## 208: Howe Rd & 146th St

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	188	1567	69	37	1001	36	23	178	39	97	144	79
Future Volume (veh/h)	188	1567	69	37	1001	36	23	178	39	97	144	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	204	1703	75	40	1088	39	25	193	42	105	157	86
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	244	1752	781	91	1447	646	286	277	235	286	354	300
Arrive On Green	0.14	0.50	0.50	0.05	0.41	0.41	0.04	0.15	0.15	0.08	0.19	0.19
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	204	1703	75	40	1088	39	25	193	42	105	157	86
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	9.1	37.8	2.0	1.8	21.2	1.2	0.9	7.9	1.9	3.8	6.0	3.8
Cycle Q Clear(g_c), s	9.1	37.8	2.0	1.8	21.2	1.2	0.9	7.9	1.9	3.8	6.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	244	1752	781	91	1447	646	286	277	235	286	354	300
V/C Ratio(X)	0.84	0.97	0.10	0.44	0.75	0.06	0.09	0.70	0.18	0.37	0.44	0.29
Avail Cap(c_a), veh/h	312	1753	782	187	1503	670	407	346	293	333	354	300
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	19.7	10.7	37.0	20.2	14.3	27.1	32.5	29.9	25.0	28.8	27.9
Incr Delay (d2), s/veh	14.5	15.4	0.1	3.3	2.1	0.0	0.1	4.4	0.4	0.8	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	16.4	0.6	0.8	8.0	0.4	0.4	3.8	0.7	1.6	2.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	35.0	10.7	40.4	22.3	14.4	27.2	36.9	30.3	25.8	29.7	28.4
LnGrp LOS	D	D	B	D	C	B	C	D	C	C	C	C
Approach Vol, veh/h		1982			1167			260			348	
Approach Delay, s/veh		35.5			22.7			34.9			28.2	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	17.0	8.1	45.0	7.0	20.3	15.1	38.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	15.0	8.5	40.0	8.5	15.0	14.2	34.3				
Max Q Clear Time (g_c+1), s	11.8	9.9	3.8	39.8	2.9	8.0	11.1	23.2				
Green Ext Time (p_c), s	0.1	0.5	0.0	0.2	0.0	0.6	0.2	5.3				

### Intersection Summary

HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary  
208: Howe Rd & 146th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	283	3240	102	40	3370	36	46	194	40	143	171	134
Future Volume (veh/h)	283	3240	102	40	3370	36	46	194	40	143	171	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	308	3522	111	43	3663	39	50	211	43	155	186	146
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	212	2378	1125	69	2092	1022	150	204	234	148	233	387
Arrive On Green	0.12	0.67	0.67	0.04	0.59	0.59	0.04	0.11	0.11	0.06	0.13	0.13
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	308	3522	111	43	3663	39	50	211	43	155	186	146
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	18.0	101.2	3.2	3.6	89.0	1.3	3.7	16.5	3.6	8.5	14.6	11.6
Cycle Q Clear(g_c), s	18.0	101.2	3.2	3.6	89.0	1.3	3.7	16.5	3.6	8.5	14.6	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	2378	1125	69	2092	1022	150	204	234	148	233	387
V/C Ratio(X)	1.45	1.48	0.10	0.63	1.75	0.04	0.33	1.03	0.18	1.05	0.80	0.38
Avail Cap(c_a), veh/h	212	2378	1125	100	2092	1022	178	204	234	148	233	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.0	24.4	6.5	71.0	30.5	9.4	56.2	66.8	55.9	60.7	63.7	47.0
Incr Delay (d2), s/veh	227.9	218.9	0.0	9.0	340.0	0.0	1.3	72.1	0.4	86.8	17.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	108.8	1.0	1.8	133.2	0.4	1.7	11.9	1.4	5.1	8.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	293.9	243.3	6.6	80.0	370.5	9.4	57.5	138.8	56.2	147.5	81.0	47.6
LnGrp LOS	F	F	A	E	F	A	E	F	E	F	F	D
Approach Vol, veh/h	3941			3745			304			487		
Approach Delay, s/veh	240.6			363.4			113.8			92.2		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.5	21.5	9.8	106.2	10.1	23.9	22.0	94.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	5.0	16.5	8.5	98.5	8.5	16.5	18.0	89.0				
Max Q Clear Time (g_c+10), s	10.5	18.5	5.6	103.2	5.7	16.6	20.0	91.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			281.8									
HCM 6th LOS			F									



HCM 6th Signalized Intersection Summary  
208: Howe Rd & 146th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	3240	102	40	3370	36	46	194	40	143	171	134
Future Volume (veh/h)	283	3240	102	40	3370	36	46	194	40	143	171	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	308	3522	111	43	3663	39	50	211	43	155	186	146
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	212	2378	1125	69	2092	1022	150	204	234	148	233	387
Arrive On Green	0.12	0.67	0.67	0.04	0.59	0.59	0.04	0.11	0.11	0.06	0.13	0.13
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	308	3522	111	43	3663	39	50	211	43	155	186	146
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	18.0	101.2	3.2	3.6	89.0	1.3	3.7	16.5	3.6	8.5	14.6	11.6
Cycle Q Clear(g_c), s	18.0	101.2	3.2	3.6	89.0	1.3	3.7	16.5	3.6	8.5	14.6	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	2378	1125	69	2092	1022	150	204	234	148	233	387
V/C Ratio(X)	1.45	1.48	0.10	0.63	1.75	0.04	0.33	1.03	0.18	1.05	0.80	0.38
Avail Cap(c_a), veh/h	212	2378	1125	100	2092	1022	178	204	234	148	233	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.0	24.4	6.5	71.0	30.5	9.4	56.2	66.8	55.9	60.7	63.7	47.0
Incr Delay (d2), s/veh	227.9	218.9	0.0	9.0	340.0	0.0	1.3	72.1	0.4	86.8	17.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	108.8	1.0	1.8	133.2	0.4	1.7	11.9	1.4	5.1	8.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	293.9	243.3	6.6	80.0	370.5	9.4	57.5	138.8	56.2	147.5	81.0	47.6
LnGrp LOS	F	F	A	E	F	A	E	F	E	F	F	D
Approach Vol, veh/h		3941			3745			304			487	
Approach Delay, s/veh		240.6			363.4			113.8			92.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.5	21.5	9.8	106.2	10.1	23.9	22.0	94.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	5.0	16.5	8.5	98.5	8.5	16.5	18.0	89.0				
Max Q Clear Time (g_c+10), s	10.5	18.5	5.6	103.2	5.7	16.6	20.0	91.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			281.8									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
208: Howe Rd & 146th St

Future AM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↗	↖	↑↑↑	↗	↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	41	2415	20	38	2489	19	80	96	61	49	124	319
Future Volume (veh/h)	41	2415	20	38	2489	19	80	96	61	49	124	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	45	2625	22	41	2705	21	87	104	66	53	135	347
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	2653	929	86	2640	907	289	334	360	334	314	347
Arrive On Green	0.05	0.52	0.52	0.05	0.52	0.52	0.07	0.18	0.18	0.06	0.17	0.17
Sat Flow, veh/h	3428	5066	1572	1767	5066	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	45	2625	22	41	2705	21	87	104	66	53	135	347
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1767	1689	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	1.2	48.2	0.5	2.1	49.0	0.5	3.7	4.6	3.2	2.3	6.1	15.9
Cycle Q Clear(g_c), s	1.2	48.2	0.5	2.1	49.0	0.5	3.7	4.6	3.2	2.3	6.1	15.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	2653	929	86	2640	907	289	334	360	334	314	347
V/C Ratio(X)	0.26	0.99	0.02	0.47	1.02	0.02	0.30	0.31	0.18	0.16	0.43	1.00
Avail Cap(c_a), veh/h	314	2653	929	160	2640	907	330	334	360	395	314	347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	22.1	8.0	43.5	22.5	8.5	29.1	33.5	29.2	29.2	35.0	36.6
Incr Delay (d2), s/veh	0.8	15.0	0.0	4.0	24.1	0.0	0.6	0.5	0.2	0.2	0.9	48.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	19.8	0.2	1.0	22.3	0.2	1.6	2.1	1.2	1.0	2.8	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.6	37.2	8.0	47.5	46.6	8.5	29.7	34.0	29.4	29.4	35.9	85.1
LnGrp LOS	D	D	A	D	F	A	C	C	C	C	D	F
Approach Vol, veh/h		2692			2767			257			535	
Approach Delay, s/veh		37.0			46.3			31.4			67.1	
Approach LOS		D			D			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	21.9	8.6	54.2	10.3	20.9	8.8	54.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.9	15.9	8.5	49.1	8.5	15.9	8.6	49.0				
Max Q Clear Time (g_c+14), s	11.3	6.6	4.1	50.2	5.7	17.9	3.2	51.0				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh												43.5
HCM 6th LOS												D

HCM 6th Signalized Intersection Summary  
208: Howe Rd & 146th St

Future PM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↗	↖	↑↑↑	↗	↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	283	3240	102	40	3370	36	46	194	40	143	171	134
Future Volume (veh/h)	283	3240	102	40	3370	36	46	194	40	143	171	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	308	3522	111	43	3663	39	50	211	43	155	186	146
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	274	3349	1104	69	3141	1064	165	229	255	160	258	345
Arrive On Green	0.08	0.66	0.66	0.04	0.62	0.62	0.04	0.12	0.12	0.06	0.14	0.14
Sat Flow, veh/h	3428	5066	1572	1767	5066	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	308	3522	111	43	3663	39	50	211	43	155	186	146
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1767	1689	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	12.0	99.2	3.4	3.6	93.0	1.2	3.7	16.9	3.5	8.5	14.4	12.0
Cycle Q Clear(g_c), s	12.0	99.2	3.4	3.6	93.0	1.2	3.7	16.9	3.5	8.5	14.4	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	274	3349	1104	69	3141	1064	165	229	255	160	258	345
V/C Ratio(X)	1.12	1.05	0.10	0.63	1.17	0.04	0.30	0.92	0.17	0.97	0.72	0.42
Avail Cap(c_a), veh/h	274	3349	1104	100	3141	1064	193	229	255	160	258	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.0	25.4	7.2	71.0	28.5	8.0	54.4	65.0	54.1	60.0	61.8	50.4
Incr Delay (d2), s/veh	91.6	31.4	0.0	9.0	78.7	0.0	1.0	38.8	0.3	61.1	9.4	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	44.6	1.1	1.8	56.7	0.4	1.7	10.4	1.4	4.5	7.4	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	160.6	56.8	7.2	80.0	107.2	8.1	55.4	103.8	54.4	121.1	71.2	51.2
LnGrp LOS	F	F	A	E	F	A	E	F	D	F	E	D
Approach Vol, veh/h		3941			3745			304			487	
Approach Delay, s/veh		63.5			105.8			88.9			81.1	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.5	23.5	9.8	104.2	10.1	25.9	16.0	98.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	18.5	18.5	8.5	96.5	8.5	18.5	12.0	93.0				
Max Q Clear Time (g_c+110), s	18.9	18.9	5.6	101.2	5.7	16.4	14.0	95.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			84.1									
HCM 6th LOS			F									

Intersection

Intersection Delay, s/veh 54.4

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	94	440	23	9	273	20	22	150	11	30	163	62
Future Vol, veh/h	94	440	23	9	273	20	22	150	11	30	163	62
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	102	478	25	10	297	22	24	163	12	33	177	67
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	99.4	22.6	17.2	20.4
HCM LOS	F	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	17%	3%	12%
Vol Thru, %	82%	79%	90%	64%
Vol Right, %	6%	4%	7%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	183	557	302	255
LT Vol	22	94	9	30
Through Vol	150	440	273	163
RT Vol	11	23	20	62
Lane Flow Rate	199	605	328	277
Geometry Grp	1	1	1	1
Degree of Util (X)	0.428	1.116	0.641	0.566
Departure Headway (Hd)	8.183	6.638	7.371	7.754
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	444	545	492	468
Service Time	6.183	4.703	5.371	5.754
HCM Lane V/C Ratio	0.448	1.11	0.667	0.592
HCM Control Delay	17.2	99.4	22.6	20.4
HCM Lane LOS	C	F	C	C
HCM 95th-tile Q	2.1	19.4	4.5	3.4

Intersection												
Intersection Delay, s/veh	54.4											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	94	440	23	9	273	20	22	150	11	30	163	62
Future Vol, veh/h	94	440	23	9	273	20	22	150	11	30	163	62
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	102	478	25	10	297	22	24	163	12	33	177	67
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	99.4	22.6	17.2	20.4
HCM LOS	F	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	17%	3%	12%
Vol Thru, %	82%	79%	90%	64%
Vol Right, %	6%	4%	7%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	183	557	302	255
LT Vol	22	94	9	30
Through Vol	150	440	273	163
RT Vol	11	23	20	62
Lane Flow Rate	199	605	328	277
Geometry Grp	1	1	1	1
Degree of Util (X)	0.428	1.116	0.641	0.566
Departure Headway (Hd)	8.183	6.638	7.371	7.754
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	444	545	492	468
Service Time	6.183	4.703	5.371	5.754
HCM Lane V/C Ratio	0.448	1.11	0.667	0.592
HCM Control Delay	17.2	99.4	22.6	20.4
HCM Lane LOS	C	F	C	C
HCM 95th-tile Q	2.1	19.4	4.5	3.4

<b>Intersection</b>												
Intersection Delay, s/veh	36.6											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	120	473	23	38	347	20	22	164	33	30	182	106
Future Vol, veh/h	120	473	23	38	347	20	22	164	33	30	182	106
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	130	514	25	41	377	22	24	178	36	33	198	115
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	266.4	72.6	27.5	41.7
HCM LOS	F	F	D	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	19%	9%	9%
Vol Thru, %	75%	77%	86%	57%
Vol Right, %	15%	4%	5%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	616	405	318
LT Vol	22	120	38	30
Through Vol	164	473	347	182
RT Vol	33	23	20	106
Lane Flow Rate	238	670	440	346
Geometry Grp	1	1	1	1
Degree of Util (X)	0.593	1.518	0.984	0.8
Departure Headway (Hd)	10.434	8.16	9.221	9.625
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	348	449	396	380
Service Time	8.434	6.237	7.221	7.625
HCM Lane V/C Ratio	0.684	1.492	1.111	0.911
HCM Control Delay	27.5	266.4	72.6	41.7
HCM Lane LOS	D	F	F	E
HCM 95th-tile Q	3.6	35.3	11.6	6.9

Intersection

Intersection Delay, s/veh 36.6

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	120	473	23	38	347	20	22	164	33	30	182	106
Future Vol, veh/h	120	473	23	38	347	20	22	164	33	30	182	106
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	130	514	25	41	377	22	24	178	36	33	198	115
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	266.4	72.6	27.5	41.7
HCM LOS	F	F	D	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	19%	9%	9%
Vol Thru, %	75%	77%	86%	57%
Vol Right, %	15%	4%	5%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	616	405	318
LT Vol	22	120	38	30
Through Vol	164	473	347	182
RT Vol	33	23	20	106
Lane Flow Rate	238	670	440	346
Geometry Grp	1	1	1	1
Degree of Util (X)	0.593	1.518	0.984	0.8
Departure Headway (Hd)	10.434	8.16	9.221	9.625
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	348	449	396	380
Service Time	8.434	6.237	7.221	7.625
HCM Lane V/C Ratio	0.684	1.492	1.111	0.911
HCM Control Delay	27.5	266.4	72.6	41.7
HCM Lane LOS	D	F	F	E
HCM 95th-tile Q	3.6	35.3	11.6	6.9

Intersection				
Intersection Delay, s/veh	6.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	255	397	202	266
Demand Flow Rate, veh/h	263	409	208	274
Vehicles Circulating, veh/h	201	228	275	383
Vehicles Exiting, veh/h	456	255	189	254
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	7.3	5.4	7.1
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	263	409	208	274
Cap Entry Lane, veh/h	1124	1094	1042	934
Entry HV Adj Factor	0.970	0.971	0.972	0.972
Flow Entry, veh/h	255	397	202	266
Cap Entry, veh/h	1090	1062	1014	908
V/C Ratio	0.234	0.374	0.200	0.293
Control Delay, s/veh	5.5	7.3	5.4	7.1
LOS	A	A	A	A
95th %tile Queue, veh	1	2	1	1



Intersection				
Intersection Delay, s/veh 11.2				
Intersection LOS B				
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	669	440	238	346
Demand Flow Rate, veh/h	689	453	245	356
Vehicles Circulating, veh/h	280	342	697	455
Vehicles Exiting, veh/h	531	600	272	340
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	13.7	9.4	10.3	9.3
Approach LOS	B	A	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	689	453	245	356
Cap Entry Lane, veh/h	1037	974	678	868
Entry HV Adj Factor	0.970	0.971	0.970	0.972
Flow Entry, veh/h	669	440	238	346
Cap Entry, veh/h	1006	945	658	843
V/C Ratio	0.664	0.465	0.361	0.410
Control Delay, s/veh	13.7	9.4	10.3	9.3
LOS	B	A	B	A
95th %tile Queue, veh	5	3	2	2

Intersection												
Intersection Delay, s/veh	34.3											
Intersection LOS	D											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	85	265	54	11	135	40	64	225	19	54	270	21
Future Vol, veh/h	85	265	54	11	135	40	64	225	19	54	270	21
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	92	288	59	12	147	43	70	245	21	59	293	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	47.4	17.9	28	33.4
HCM LOS	E	C	D	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	21%	6%	16%
Vol Thru, %	73%	66%	73%	78%
Vol Right, %	6%	13%	22%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	308	404	186	345
LT Vol	64	85	11	54
Through Vol	225	265	135	270
RT Vol	19	54	40	21
Lane Flow Rate	335	439	202	375
Geometry Grp	1	1	1	1
Degree of Util (X)	0.715	0.902	0.456	0.787
Departure Headway (Hd)	7.689	7.393	8.127	7.551
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	469	492	441	476
Service Time	5.767	5.393	6.215	5.626
HCM Lane V/C Ratio	0.714	0.892	0.458	0.788
HCM Control Delay	28	47.4	17.9	33.4
HCM Lane LOS	D	E	C	D
HCM 95th-tile Q	5.6	10.2	2.3	7.1

Intersection												
Intersection Delay, s/veh	34.3											
Intersection LOS	D											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	85	265	54	11	135	40	64	225	19	54	270	21
Future Vol, veh/h	85	265	54	11	135	40	64	225	19	54	270	21
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	92	288	59	12	147	43	70	245	21	59	293	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	47.4	17.9	28	33.4
HCM LOS	E	C	D	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	21%	6%	16%
Vol Thru, %	73%	66%	73%	78%
Vol Right, %	6%	13%	22%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	308	404	186	345
LT Vol	64	85	11	54
Through Vol	225	265	135	270
RT Vol	19	54	40	21
Lane Flow Rate	335	439	202	375
Geometry Grp	1	1	1	1
Degree of Util (X)	0.715	0.902	0.456	0.787
Departure Headway (Hd)	7.689	7.393	8.127	7.551
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	469	492	441	476
Service Time	5.767	5.393	6.215	5.626
HCM Lane V/C Ratio	0.714	0.892	0.458	0.788
HCM Control Delay	28	47.4	17.9	33.4
HCM Lane LOS	D	E	C	D
HCM 95th-tile Q	5.6	10.2	2.3	7.1

<b>Intersection</b>												
Intersection Delay, s/veh	226											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	98	305	54	56	225	170	64	259	45	243	307	28
Future Vol, veh/h	98	305	54	56	225	170	64	259	45	243	307	28
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	107	332	59	61	245	185	70	282	49	264	334	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	200.7	184.7	115.2	348.8
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	21%	12%	42%
Vol Thru, %	70%	67%	50%	53%
Vol Right, %	12%	12%	38%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	368	457	451	578
LT Vol	64	98	56	243
Through Vol	259	305	225	307
RT Vol	45	54	170	28
Lane Flow Rate	400	497	490	628
Geometry Grp	1	1	1	1
Degree of Util (X)	1.068	1.319	1.278	1.683
Departure Headway (Hd)	13.859	12.869	12.839	11.758
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	264	288	289	314
Service Time	11.859	10.869	10.839	9.758
HCM Lane V/C Ratio	1.515	1.726	1.696	2
HCM Control Delay	115.2	200.7	184.7	348.8
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	11.4	18.6	17.4	32.2

Intersection

Intersection Delay, s/veh 226

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	98	305	54	56	225	170	64	259	45	243	307	28
Future Vol, veh/h	98	305	54	56	225	170	64	259	45	243	307	28
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
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	107	332	59	61	245	185	70	282	49	264	334	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	200.7	184.7	115.2	348.8
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	21%	12%	42%
Vol Thru, %	70%	67%	50%	53%
Vol Right, %	12%	12%	38%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	368	457	451	578
LT Vol	64	98	56	243
Through Vol	259	305	225	307
RT Vol	45	54	170	28
Lane Flow Rate	400	497	490	628
Geometry Grp	1	1	1	1
Degree of Util (X)	1.068	1.319	1.278	1.683
Departure Headway (Hd)	13.859	12.869	12.839	11.758
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	264	288	289	314
Service Time	11.859	10.869	10.839	9.758
HCM Lane V/C Ratio	1.515	1.726	1.696	2
HCM Control Delay	115.2	200.7	184.7	348.8
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	11.4	18.6	17.4	32.2

Intersection				
Intersection Delay, s/veh	7.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	234	501	209	357
Demand Flow Rate, veh/h	242	517	216	367
Vehicles Circulating, veh/h	359	249	298	286
Vehicles Exiting, veh/h	294	265	303	480
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	9.1	5.7	7.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	242	517	216	367
Cap Entry Lane, veh/h	957	1070	1018	1031
Entry HV Adj Factor	0.968	0.970	0.968	0.972
Flow Entry, veh/h	234	501	209	357
Cap Entry, veh/h	927	1038	986	1002
V/C Ratio	0.253	0.483	0.212	0.356
Control Delay, s/veh	6.5	9.1	5.7	7.3
LOS	A	A	A	A
95th %tile Queue, veh	1	3	1	2

Intersection				
Intersection Delay, s/veh	17.4			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	498	491	401	628
Demand Flow Rate, veh/h	513	506	412	647
Vehicles Circulating, veh/h	679	472	724	387
Vehicles Exiting, veh/h	355	664	468	591
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	23.0	13.5	17.6	16.1
Approach LOS	C	B	C	C
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	513	506	412	647
Cap Entry Lane, veh/h	690	853	659	930
Entry HV Adj Factor	0.971	0.970	0.972	0.971
Flow Entry, veh/h	498	491	401	628
Cap Entry, veh/h	670	827	641	903
V/C Ratio	0.743	0.593	0.625	0.696
Control Delay, s/veh	23.0	13.5	17.6	16.1
LOS	C	B	C	C
95th %tile Queue, veh	7	4	4	6

Intersection						
Int Delay, s/veh	6.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	623	91	34	634	90	72
Future Vol, veh/h	623	91	34	634	90	72
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	80
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	677	99	37	689	98	78

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	776	0	1490 727
Stage 1	-	-	-	-	727 -
Stage 2	-	-	-	-	763 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	836	-	136 422
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	459 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	836	-	126 422
Mov Cap-2 Maneuver	-	-	-	-	126 -
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	426 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	59.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	126	422	-	-	836	-
HCM Lane V/C Ratio	0.776	0.185	-	-	0.044	-
HCM Control Delay (s)	95.1	15.5	-	-	9.5	0
HCM Lane LOS	F	C	-	-	A	A
HCM 95th %tile Q(veh)	4.5	0.7	-	-	0.1	-



Intersection						
Int Delay, s/veh	6.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	623	91	34	634	90	72
Future Vol, veh/h	623	91	34	634	90	72
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	80
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	677	99	37	689	98	78

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	776	0	1490 727
Stage 1	-	-	-	-	727 -
Stage 2	-	-	-	-	763 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	836	-	136 422
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	459 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	836	-	126 422
Mov Cap-2 Maneuver	-	-	-	-	126 -
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	426 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	59.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	126	422	-	-	836	-
HCM Lane V/C Ratio	0.776	0.185	-	-	0.044	-
HCM Control Delay (s)	95.1	15.5	-	-	9.5	0
HCM Lane LOS	F	C	-	-	A	A
HCM 95th %tile Q(veh)	4.5	0.7	-	-	0.1	-

Intersection						
Int Delay, s/veh	385.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1102	147	92	1737	150	98
Future Vol, veh/h	1102	147	92	1737	150	98
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	80
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1198	160	100	1888	163	107

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1358	0	3366	1278
Stage 1	-	-	-	-	1278	-
Stage 2	-	-	-	-	2088	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	503	-	~ 9	202
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	~ 103	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	503	-	~ 9	202
Mov Cap-2 Maneuver	-	-	-	-	~ 9	-
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	~ 103	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	\$ 5163.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	9	202	-	-	503	-
HCM Lane V/C Ratio	18.116	0.527	-	-	0.199	-
HCM Control Delay (s)	\$ 8509.5	41.1	-	-	13.9	0
HCM Lane LOS	F	E	-	-	B	A
HCM 95th %tile Q(veh)	22	2.7	-	-	0.7	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	385.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1102	147	92	1737	150	98
Future Vol, veh/h	1102	147	92	1737	150	98
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	80
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1198	160	100	1888	163	107

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1358	0	3366	1278
Stage 1	-	-	-	-	1278	-
Stage 2	-	-	-	-	2088	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	503	-	~ 9	202
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	~ 103	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	503	-	~ 9	202
Mov Cap-2 Maneuver	-	-	-	-	~ 9	-
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	~ 103	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	\$ 5163.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	9	202	-	-	503	-
HCM Lane V/C Ratio	18.116	0.527	-	-	0.199	-
HCM Control Delay (s)	\$ 8509.5	41.1	-	-	13.9	0
HCM Lane LOS	F	E	-	-	B	A
HCM 95th %tile Q(veh)	22	2.7	-	-	0.7	-

Notes			
-: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection					
Intersection Delay, s/veh 12.7					
Intersection LOS B					
Approach	EB		WB		NB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	1866		1011		69
Demand Flow Rate, veh/h	1921		1041		71
Vehicles Circulating, veh/h	118		57		1493
Vehicles Exiting, veh/h	980		1507		546
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	16.0		6.6		12.2
Approach LOS	C		A		B
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	903	1018	489	552	71
Cap Entry Lane, veh/h	1211	1285	1281	1353	399
Entry HV Adj Factor	0.971	0.971	0.972	0.971	0.972
Flow Entry, veh/h	877	989	475	536	69
Cap Entry, veh/h	1176	1248	1245	1313	388
V/C Ratio	0.746	0.792	0.382	0.408	0.178
Control Delay, s/veh	15.2	16.8	6.6	6.7	12.2
LOS	C	C	A	A	B
95th %tile Queue, veh	7	9	2	2	1

Intersection					
Intersection Delay, s/veh 17.4					
Intersection LOS C					
Approach	EB		WB		NB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	1358		1988		270
Demand Flow Rate, veh/h	1399		2048		278
Vehicles Circulating, veh/h	103		168		1234
Vehicles Exiting, veh/h	2113		1344		268
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	9.3		22.7		19.3
Approach LOS	A		C		C
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
Entry Flow, veh/h	658	741	963	1085	278
Cap Entry Lane, veh/h	1228	1301	1157	1231	497
Entry HV Adj Factor	0.970	0.971	0.970	0.971	0.971
Flow Entry, veh/h	638	720	935	1054	270
Cap Entry, veh/h	1191	1264	1122	1196	483
V/C Ratio	0.536	0.570	0.833	0.881	0.559
Control Delay, s/veh	9.1	9.4	20.9	24.4	19.3
LOS	A	A	C	C	C
95th %tile Queue, veh	3	4	10	13	3

HCM 6th Signalized Intersection Summary  
 212: Marilyn Rd & 146th St/Campus Pkwy

Existing AM Peak  
 12/11/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1202	55	94	898	19	46	82	98	18	94	45
Future Volume (veh/h)	95	1202	55	94	898	19	46	82	98	18	94	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	103	1307	60	102	976	21	50	89	107	20	102	49
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	159	1384	617	158	1383	617	386	395	334	370	337	285
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.06	0.21	0.21	0.03	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	103	1307	60	102	976	21	50	89	107	20	102	49
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	3.7	23.6	1.6	3.7	15.4	0.5	1.4	2.6	3.8	0.6	3.1	1.7
Cycle Q Clear(g_c), s	3.7	23.6	1.6	3.7	15.4	0.5	1.4	2.6	3.8	0.6	3.1	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	1384	617	158	1383	617	386	395	334	370	337	285
V/C Ratio(X)	0.65	0.94	0.10	0.64	0.71	0.03	0.13	0.23	0.32	0.05	0.30	0.17
Avail Cap(c_a), veh/h	187	1388	619	187	1388	619	461	395	334	500	337	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	19.4	12.7	29.0	16.9	12.4	19.4	21.5	22.0	20.6	23.4	22.8
Incr Delay (d2), s/veh	5.9	13.2	0.1	5.7	1.6	0.0	0.2	0.3	0.5	0.1	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	10.4	0.5	1.7	5.4	0.2	0.6	1.1	1.3	0.2	1.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	32.5	12.7	34.7	18.5	12.4	19.5	21.8	22.5	20.7	23.9	23.1
LnGrp LOS	C	C	B	C	B	B	B	C	C	C	C	C
Approach Vol, veh/h		1470			1099			246			171	
Approach Delay, s/veh		31.9			19.9			21.6			23.3	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	19.0	9.9	30.9	8.2	17.0	9.9	30.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	12.0	7.0	26.0	7.0	12.0	7.0	26.0				
Max Q Clear Time (g_c+I1), s	2.6	5.8	5.7	25.6	3.4	5.1	5.7	17.4				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.3	0.0	0.3	0.0	4.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			26.1									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary  
212: Marilyn Rd & 146th St/Campus Pkwy

Existing PM Peak  
12/11/2023



























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1202	55	94	898	19	46	82	98	18	94	45
Future Volume (veh/h)	95	1202	55	94	898	19	46	82	98	18	94	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	103	1307	60	102	976	21	50	89	107	20	102	49
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	159	1384	617	158	1383	617	386	395	334	370	337	285
Arrive On Green	0.09	0.39	0.39	0.09	0.39	0.39	0.06	0.21	0.21	0.03	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	103	1307	60	102	976	21	50	89	107	20	102	49
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	3.7	23.6	1.6	3.7	15.4	0.5	1.4	2.6	3.8	0.6	3.1	1.7
Cycle Q Clear(g_c), s	3.7	23.6	1.6	3.7	15.4	0.5	1.4	2.6	3.8	0.6	3.1	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	1384	617	158	1383	617	386	395	334	370	337	285
V/C Ratio(X)	0.65	0.94	0.10	0.64	0.71	0.03	0.13	0.23	0.32	0.05	0.30	0.17
Avail Cap(c_a), veh/h	187	1388	619	187	1388	619	461	395	334	500	337	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	19.4	12.7	29.0	16.9	12.4	19.4	21.5	22.0	20.6	23.4	22.8
Incr Delay (d2), s/veh	5.9	13.2	0.1	5.7	1.6	0.0	0.2	0.3	0.5	0.1	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	10.4	0.5	1.7	5.4	0.2	0.6	1.1	1.3	0.2	1.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	32.5	12.7	34.7	18.5	12.4	19.5	21.8	22.5	20.7	23.9	23.1
LnGrp LOS	C	C	B	C	B	B	B	C	C	C	C	C
Approach Vol, veh/h		1470			1099			246			171	
Approach Delay, s/veh		31.9			19.9			21.6			23.3	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	19.0	9.9	30.9	8.2	17.0	9.9	30.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	12.0	7.0	26.0	7.0	12.0	7.0	26.0				
Max Q Clear Time (g_c+I1), s	2.6	5.8	5.7	25.6	3.4	5.1	5.7	17.4				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.3	0.0	0.3	0.0	4.0				

Intersection Summary												
HCM 6th Ctrl Delay											26.1	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
212: Marilyn Rd & 146th St/Campus Pkwy

























Future AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	3071	80	166	2802	120	60	157	317	119	182	72
Future Volume (veh/h)	124	3071	80	166	2802	120	60	157	317	119	182	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	135	3338	87	180	3046	130	65	171	345	129	198	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	106	2209	985	130	2256	1006	161	247	210	170	253	215
Arrive On Green	0.06	0.63	0.63	0.07	0.64	0.64	0.04	0.13	0.13	0.05	0.14	0.14
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	135	3338	87	180	3046	130	65	171	345	129	198	78
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	9.0	94.0	3.3	11.0	96.0	4.9	4.7	13.2	20.0	7.0	15.5	6.8
Cycle Q Clear(g_c), s	9.0	94.0	3.3	11.0	96.0	4.9	4.7	13.2	20.0	7.0	15.5	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	2209	985	130	2256	1006	161	247	210	170	253	215
V/C Ratio(X)	1.27	1.51	0.09	1.39	1.35	0.13	0.40	0.69	1.65	0.76	0.78	0.36
Avail Cap(c_a), veh/h	106	2209	985	130	2256	1006	167	247	210	170	253	215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	28.0	11.1	69.5	27.0	10.6	53.6	62.1	65.0	58.9	62.6	58.8
Incr Delay (d2), s/veh	177.7	232.3	0.0	215.3	160.5	0.1	1.6	7.9	310.9	17.6	14.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	106.8	1.1	12.6	86.1	1.6	2.2	6.8	26.0	2.3	8.3	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	248.2	260.3	11.1	284.8	187.5	10.7	55.2	70.0	375.9	76.6	77.2	59.9
LnGrp LOS	F	F	B	F	F	B	E	E	F	E	E	E
Approach Vol, veh/h		3560			3356			581			405	
Approach Delay, s/veh		253.7			185.9			250.0			73.7	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	25.0	15.0	99.0	10.5	25.5	13.0	101.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	20.0	11.0	94.0	7.0	20.0	9.0	96.0				
Max Q Clear Time (g_c+I1), s	9.0	22.0	13.0	96.0	6.7	17.5	11.0	98.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			215.4									
HCM 6th LOS			F									



HCM 6th Signalized Intersection Summary  
212: Marilyn Rd & 146th St/Campus Pkwy

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	3071	80	166	2802	120	60	157	317	119	182	72
Future Volume (veh/h)	124	3071	80	166	2802	120	60	157	317	119	182	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	135	3338	87	180	3046	130	65	171	345	129	198	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	106	2209	985	130	2256	1006	161	247	210	170	253	215
Arrive On Green	0.06	0.63	0.63	0.07	0.64	0.64	0.04	0.13	0.13	0.05	0.14	0.14
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	135	3338	87	180	3046	130	65	171	345	129	198	78
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	9.0	94.0	3.3	11.0	96.0	4.9	4.7	13.2	20.0	7.0	15.5	6.8
Cycle Q Clear(g_c), s	9.0	94.0	3.3	11.0	96.0	4.9	4.7	13.2	20.0	7.0	15.5	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	2209	985	130	2256	1006	161	247	210	170	253	215
V/C Ratio(X)	1.27	1.51	0.09	1.39	1.35	0.13	0.40	0.69	1.65	0.76	0.78	0.36
Avail Cap(c_a), veh/h	106	2209	985	130	2256	1006	167	247	210	170	253	215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	28.0	11.1	69.5	27.0	10.6	53.6	62.1	65.0	58.9	62.6	58.8
Incr Delay (d2), s/veh	177.7	232.3	0.0	215.3	160.5	0.1	1.6	7.9	310.9	17.6	14.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	106.8	1.1	12.6	86.1	1.6	2.2	6.8	26.0	2.3	8.3	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	248.2	260.3	11.1	284.8	187.5	10.7	55.2	70.0	375.9	76.6	77.2	59.9
LnGrp LOS	F	F	B	F	F	B	E	E	F	E	E	E
Approach Vol, veh/h		3560			3356			581			405	
Approach Delay, s/veh		253.7			185.9			250.0			73.7	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	25.0	15.0	99.0	10.5	25.5	13.0	101.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	20.0	11.0	94.0	7.0	20.0	9.0	96.0				
Max Q Clear Time (g_c+I1), s	9.0	22.0	13.0	96.0	6.7	17.5	11.0	98.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					215.4							
HCM 6th LOS					F							

HCM 6th Signalized Intersection Summary  
 212: Marilyn Rd & 146th St/Campus Pkwy

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	2007	17	172	2505	13	92	34	185	259	180	112
Future Volume (veh/h)	24	2007	17	172	2505	13	92	34	185	259	180	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	2182	18	187	2723	14	100	37	201	282	196	122
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	66	2402	858	198	2780	986	249	249	387	351	261	280
Arrive On Green	0.04	0.47	0.47	0.11	0.55	0.55	0.07	0.13	0.13	0.08	0.14	0.14
Sat Flow, veh/h	1767	5066	1572	1767	5066	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	26	2182	18	187	2723	14	100	37	201	282	196	122
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	1.3	35.6	0.5	9.4	46.9	0.3	4.3	1.6	9.9	7.0	9.1	6.2
Cycle Q Clear(g_c), s	1.3	35.6	0.5	9.4	46.9	0.3	4.3	1.6	9.9	7.0	9.1	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	2402	858	198	2780	986	249	249	387	351	261	280
V/C Ratio(X)	0.39	0.91	0.02	0.95	0.98	0.01	0.40	0.15	0.52	0.80	0.75	0.44
Avail Cap(c_a), veh/h	138	2437	869	198	2780	986	260	249	387	351	261	280
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	21.7	9.3	39.4	19.7	6.3	30.3	34.2	29.1	34.6	36.9	32.7
Incr Delay (d2), s/veh	3.8	5.5	0.0	48.6	12.6	0.0	1.0	0.3	1.2	12.6	11.4	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	13.3	0.1	6.5	18.3	0.1	1.8	0.7	3.6	3.7	4.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.8	27.2	9.3	88.0	32.3	6.3	31.3	34.4	30.3	47.3	48.3	33.8
LnGrp LOS	D	C	A	F	C	A	C	C	C	D	D	C
Approach Vol, veh/h		2226			2924			338			600	
Approach Delay, s/veh		27.3			35.8			31.1			44.9	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	17.0	14.0	47.4	10.4	17.6	7.3	54.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	10.0	43.0	7.0	12.0	7.0	46.0					
Max Q Clear Time (g_c+19), s	11.9	11.4	37.6	6.3	11.1	3.3	48.9					
Green Ext Time (p_c), s	0.0	0.0	0.0	4.8	0.0	0.1	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			33.3									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary  
 212: Marilyn Rd & 146th St/Campus Pkwy

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘	↑↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	124	3071	80	166	2802	120	60	157	317	119	182	72
Future Volume (veh/h)	124	3071	80	166	2802	120	60	157	317	119	182	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	135	3338	87	180	3046	130	65	171	345	129	198	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	141	3208	1064	165	3276	1090	129	198	314	145	204	298
Arrive On Green	0.08	0.63	0.63	0.09	0.65	0.65	0.04	0.11	0.11	0.05	0.11	0.11
Sat Flow, veh/h	1767	5066	1572	1767	5066	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	135	3338	87	180	3046	130	65	171	345	129	198	78
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	11.4	95.0	2.8	14.0	79.9	4.1	4.9	13.6	16.0	7.0	16.0	6.3
Cycle Q Clear(g_c), s	11.4	95.0	2.8	14.0	79.9	4.1	4.9	13.6	16.0	7.0	16.0	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	3208	1064	165	3276	1090	129	198	314	145	204	298
V/C Ratio(X)	0.95	1.04	0.08	1.09	0.93	0.12	0.50	0.86	1.10	0.89	0.97	0.26
Avail Cap(c_a), veh/h	141	3208	1064	165	3276	1090	134	198	314	145	204	298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.7	27.5	8.3	68.0	23.5	7.7	57.1	65.9	60.0	62.4	66.5	51.8
Incr Delay (d2), s/veh	61.9	27.7	0.0	96.6	5.5	0.0	3.0	30.4	79.3	44.7	54.8	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	42.4	0.9	10.6	30.1	1.3	2.3	8.1	18.6	3.3	10.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	130.6	55.2	8.3	164.6	29.0	7.7	60.1	96.3	139.3	107.2	121.4	52.3
LnGrp LOS	F	F	A	F	C	A	E	F	F	F	F	D
Approach Vol, veh/h		3560			3356			581			405	
Approach Delay, s/veh		56.9			35.5			117.8			103.5	
Approach LOS		E			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	21.0	18.0	100.0	10.5	21.5	16.0	102.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	16.0	14.0	95.0	7.0	16.0	12.0	97.0					
Max Q Clear Time (g_c+19), s	18.0	16.0	97.0	6.9	18.0	13.4	81.9					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			54.7									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary  
213: Boden Rd & Greenfield Ave/146th St

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	351	345	34	296	211	478	583	43	160	446	17
Future Volume (veh/h)	13	351	345	34	296	211	478	583	43	160	446	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1930	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	14	382	375	37	322	229	520	634	47	174	485	18
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	250	463	808	236	514	601	610	1197	614	423	625	23
Arrive On Green	0.02	0.25	0.25	0.05	0.28	0.28	0.26	0.34	0.34	0.11	0.18	0.18
Sat Flow, veh/h	1767	1856	1572	1838	1856	1572	1767	3526	1572	1767	3467	128
Grp Volume(v), veh/h	14	382	375	37	322	229	520	634	47	174	246	257
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1838	1856	1572	1767	1763	1572	1767	1763	1832
Q Serve(g_s), s	0.4	13.8	10.8	1.0	10.7	7.4	15.5	10.2	1.3	5.5	9.4	9.4
Cycle Q Clear(g_c), s	0.4	13.8	10.8	1.0	10.7	7.4	15.5	10.2	1.3	5.5	9.4	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	250	463	808	236	514	601	610	1197	614	423	318	330
V/C Ratio(X)	0.06	0.82	0.46	0.16	0.63	0.38	0.85	0.53	0.08	0.41	0.78	0.78
Avail Cap(c_a), veh/h	383	577	905	324	577	655	793	1545	770	537	424	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	25.1	11.0	19.0	22.4	15.8	15.3	18.8	13.5	20.0	27.6	27.6
Incr Delay (d2), s/veh	0.1	7.8	0.4	0.3	1.8	0.4	7.1	0.4	0.1	0.6	6.3	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.4	3.0	0.4	4.4	2.4	6.2	3.7	0.4	2.1	4.1	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	32.8	11.4	19.4	24.1	16.2	22.4	19.2	13.6	20.7	33.9	33.8
LnGrp LOS	B	C	B	B	C	B	C	B	B	C	C	C
Approach Vol, veh/h	771			588			1201			677		
Approach Delay, s/veh	22.2			20.7			20.3			30.5		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	29.0	7.6	22.7	22.7	17.7	5.7	24.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	31.0	7.0	22.0	26.0	17.0	7.0	22.0				
Max Q Clear Time (g_c+1), s	12.5	12.2	3.0	15.8	17.5	11.4	2.4	12.7				
Green Ext Time (p_c), s	0.2	3.9	0.0	1.9	1.2	1.3	0.0	1.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	23.0											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary  
213: Boden Rd & Greenfield Ave/146th St

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑	↗	↘	↑↑	
Traffic Volume (veh/h)	13	351	345	34	296	211	478	583	43	160	446	17
Future Volume (veh/h)	13	351	345	34	296	211	478	583	43	160	446	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1930	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	14	382	375	37	322	229	520	634	47	174	485	18
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	250	463	808	236	514	601	610	1197	614	423	625	23
Arrive On Green	0.02	0.25	0.25	0.05	0.28	0.28	0.26	0.34	0.34	0.11	0.18	0.18
Sat Flow, veh/h	1767	1856	1572	1838	1856	1572	1767	3526	1572	1767	3467	128
Grp Volume(v), veh/h	14	382	375	37	322	229	520	634	47	174	246	257
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1838	1856	1572	1767	1763	1572	1767	1763	1832
Q Serve(g_s), s	0.4	13.8	10.8	1.0	10.7	7.4	15.5	10.2	1.3	5.5	9.4	9.4
Cycle Q Clear(g_c), s	0.4	13.8	10.8	1.0	10.7	7.4	15.5	10.2	1.3	5.5	9.4	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	250	463	808	236	514	601	610	1197	614	423	318	330
V/C Ratio(X)	0.06	0.82	0.46	0.16	0.63	0.38	0.85	0.53	0.08	0.41	0.78	0.78
Avail Cap(c_a), veh/h	383	577	905	324	577	655	793	1545	770	537	424	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	25.1	11.0	19.0	22.4	15.8	15.3	18.8	13.5	20.0	27.6	27.6
Incr Delay (d2), s/veh	0.1	7.8	0.4	0.3	1.8	0.4	7.1	0.4	0.1	0.6	6.3	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.4	3.0	0.4	4.4	2.4	6.2	3.7	0.4	2.1	4.1	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	32.8	11.4	19.4	24.1	16.2	22.4	19.2	13.6	20.7	33.9	33.8
LnGrp LOS	B	C	B	B	C	B	C	B	B	C	C	C
Approach Vol, veh/h		771			588			1201			677	
Approach Delay, s/veh		22.2			20.7			20.3			30.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	29.0	7.6	22.7	22.7	17.7	5.7	24.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	31.0	7.0	22.0	26.0	17.0	7.0	22.0				
Max Q Clear Time (g_c+1), s	12.2	12.2	3.0	15.8	17.5	11.4	2.4	12.7				
Green Ext Time (p_c), s	0.2	3.9	0.0	1.9	1.2	1.3	0.0	1.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											23.0	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
213: Boden Rd & Greenfield Ave/146th St

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	578	823	564	1245	211	1064	1777	377	160	1294	25
Future Volume (veh/h)	21	578	823	564	1245	211	1064	1777	377	160	1294	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1930	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	628	895	613	1353	229	1157	1932	410	174	1407	27
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	99	482	860	269	652	626	507	1598	902	130	755	14
Arrive On Green	0.03	0.26	0.26	0.12	0.35	0.35	0.29	0.45	0.45	0.05	0.21	0.21
Sat Flow, veh/h	1767	1856	1572	1838	1856	1572	1767	3526	1572	1767	3538	68
Grp Volume(v), veh/h	23	628	895	613	1353	229	1157	1932	410	174	700	734
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1838	1856	1572	1767	1763	1572	1767	1763	1843
Q Serve(g_s), s	1.4	39.0	39.0	18.0	52.7	15.4	43.0	68.0	22.6	7.0	32.0	32.0
Cycle Q Clear(g_c), s	1.4	39.0	39.0	18.0	52.7	15.4	43.0	68.0	22.6	7.0	32.0	32.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	99	482	860	269	652	626	507	1598	902	130	376	393
V/C Ratio(X)	0.23	1.30	1.04	2.28	2.08	0.37	2.28	1.21	0.45	1.33	1.86	1.87
Avail Cap(c_a), veh/h	130	482	860	269	652	626	507	1598	902	130	376	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	55.5	34.0	48.1	48.7	31.8	53.5	41.0	18.5	52.6	59.0	59.0
Incr Delay (d2), s/veh	1.2	150.3	41.9	588.9	489.5	0.4	584.0	100.1	0.4	193.0	398.3	399.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	37.9	39.1	50.7	112.2	5.8	100.8	50.3	8.0	8.5	55.6	58.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	205.8	75.9	637.0	538.1	32.2	637.5	141.1	18.8	245.6	457.3	458.0
LnGrp LOS	D	F	F	F	F	C	F	F	B	F	F	F
Approach Vol, veh/h		1546			2195			3499			1608	
Approach Delay, s/veh		128.2			513.0			290.9			434.7	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	73.0	22.0	44.0	47.0	37.0	8.3	57.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	68.0	18.0	39.0	43.0	32.0	7.0	50.0					
Max Q Clear Time (g_c+19), s	70.0	20.0	41.0	45.0	34.0	3.4	54.7					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay		343.7										
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
213: Boden Rd & Greenfield Ave/146th St

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	578	823	564	1245	211	1064	1777	377	160	1294	25
Future Volume (veh/h)	21	578	823	564	1245	211	1064	1777	377	160	1294	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1930	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	628	895	613	1353	229	1157	1932	410	174	1407	27
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	99	482	860	269	652	626	507	1598	902	130	755	14
Arrive On Green	0.03	0.26	0.26	0.12	0.35	0.35	0.29	0.45	0.45	0.05	0.21	0.21
Sat Flow, veh/h	1767	1856	1572	1838	1856	1572	1767	3526	1572	1767	3538	68
Grp Volume(v), veh/h	23	628	895	613	1353	229	1157	1932	410	174	700	734
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1838	1856	1572	1767	1763	1572	1767	1763	1843
Q Serve(g_s), s	1.4	39.0	39.0	18.0	52.7	15.4	43.0	68.0	22.6	7.0	32.0	32.0
Cycle Q Clear(g_c), s	1.4	39.0	39.0	18.0	52.7	15.4	43.0	68.0	22.6	7.0	32.0	32.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	99	482	860	269	652	626	507	1598	902	130	376	393
V/C Ratio(X)	0.23	1.30	1.04	2.28	2.08	0.37	2.28	1.21	0.45	1.33	1.86	1.87
Avail Cap(c_a), veh/h	130	482	860	269	652	626	507	1598	902	130	376	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	55.5	34.0	48.1	48.7	31.8	53.5	41.0	18.5	52.6	59.0	59.0
Incr Delay (d2), s/veh	1.2	150.3	41.9	588.9	489.5	0.4	584.0	100.1	0.4	193.0	398.3	399.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	37.9	39.1	50.7	112.2	5.8	100.8	50.3	8.0	8.5	55.6	58.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	205.8	75.9	637.0	538.1	32.2	637.5	141.1	18.8	245.6	457.3	458.0
LnGrp LOS	D	F	F	F	F	C	F	F	B	F	F	F
Approach Vol, veh/h		1546			2195			3499			1608	
Approach Delay, s/veh		128.2			513.0			290.9			434.7	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	73.0	22.0	44.0	47.0	37.0	8.3	57.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	68.0	18.0	39.0	43.0	32.0	7.0	50.0					
Max Q Clear Time (g_c+19), s	70.0	20.0	41.0	45.0	34.0	3.4	54.7					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay		343.7										
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
 213: Boden Rd & Greenfield Ave/146th St

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	874	629	280	431	231	478	418	316	180	1270	11
Future Volume (veh/h)	11	874	629	280	431	231	478	418	316	180	1270	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1930	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	12	950	684	304	468	251	520	454	343	196	1380	12
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	253	852	603	244	1137	641	486	1492	823	439	1313	11
Arrive On Green	0.02	0.24	0.24	0.10	0.32	0.32	0.14	0.42	0.42	0.09	0.37	0.37
Sat Flow, veh/h	1767	3526	1572	1838	3526	1572	3428	3526	1572	1767	3582	31
Grp Volume(v), veh/h	12	950	684	304	468	251	520	454	343	196	679	713
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1838	1763	1572	1714	1763	1572	1767	1763	1850
Q Serve(g_s), s	0.6	29.0	29.0	12.0	12.4	13.5	17.0	10.2	16.0	8.2	44.0	44.0
Cycle Q Clear(g_c), s	0.6	29.0	29.0	12.0	12.4	13.5	17.0	10.2	16.0	8.2	44.0	44.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	253	852	603	244	1137	641	486	1492	823	439	646	678
V/C Ratio(X)	0.05	1.12	1.13	1.25	0.41	0.39	1.07	0.30	0.42	0.45	1.05	1.05
Avail Cap(c_a), veh/h	322	852	603	244	1137	641	486	1492	823	450	646	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	45.5	37.0	33.6	31.8	25.0	51.5	22.9	17.5	20.3	38.0	38.0
Incr Delay (d2), s/veh	0.1	67.5	79.7	140.6	0.2	0.4	61.0	0.1	0.3	0.7	49.4	48.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	20.2	30.0	14.6	5.2	4.9	11.2	4.1	5.5	3.3	26.8	28.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.1	113.0	116.7	174.2	32.0	25.4	112.5	23.0	17.8	21.1	87.4	86.8
LnGrp LOS	C	F	F	F	C	C	F	C	B	C	F	F
Approach Vol, veh/h		1646			1023			1317			1588	
Approach Delay, s/veh		114.0			72.6			57.0			78.9	
Approach LOS		F			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.2	55.8	16.0	34.0	21.0	49.0	6.3	43.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	1.0	50.0	12.0	29.0	17.0	44.0	7.0	34.0				
Max Q Clear Time (g_c+110), s	1.0	18.0	14.0	31.0	19.0	46.0	2.6	15.5				
Green Ext Time (p_c), s	0.0	4.2	0.0	0.0	0.0	0.0	0.0	3.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											82.9	
HCM 6th LOS											F	



HCM 6th Signalized Intersection Summary  
 213: Boden Rd & Greenfield Ave/146th St

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	578	823	564	1245	211	1064	1777	377	160	1294	25
Future Volume (veh/h)	21	578	823	564	1245	211	1064	1777	377	160	1294	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1930	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	628	895	613	1353	229	1157	1932	410	174	1407	27
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	99	494	598	403	1074	552	823	1763	1090	130	1085	21
Arrive On Green	0.03	0.14	0.14	0.19	0.30	0.30	0.24	0.50	0.50	0.05	0.31	0.31
Sat Flow, veh/h	1767	3526	1572	1838	3526	1572	3428	3526	1572	1767	3538	68
Grp Volume(v), veh/h	23	628	895	613	1353	229	1157	1932	410	174	700	734
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1838	1763	1572	1714	1763	1572	1767	1763	1843
Q Serve(g_s), s	1.6	21.0	21.0	29.0	45.7	16.6	36.0	75.0	16.2	7.0	46.0	46.0
Cycle Q Clear(g_c), s	1.6	21.0	21.0	29.0	45.7	16.6	36.0	75.0	16.2	7.0	46.0	46.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	99	494	598	403	1074	552	823	1763	1090	130	541	565
V/C Ratio(X)	0.23	1.27	1.50	1.52	1.26	0.41	1.41	1.10	0.38	1.33	1.30	1.30
Avail Cap(c_a), veh/h	130	494	598	403	1074	552	823	1763	1090	130	541	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	64.5	46.5	47.1	52.2	36.9	57.0	37.5	9.5	43.7	52.0	52.0
Incr Delay (d2), s/veh	1.2	137.7	232.7	246.3	124.7	0.5	190.1	52.8	0.2	193.0	146.3	146.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	18.7	60.1	40.6	38.2	6.4	36.9	43.3	5.2	10.3	41.7	43.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.2	202.2	279.2	293.4	176.8	37.4	247.1	90.3	9.8	236.7	198.3	198.6
LnGrp LOS	E	F	F	F	F	D	F	F	A	F	F	F
Approach Vol, veh/h		1546			2195			3499			1608	
Approach Delay, s/veh		244.6			194.8			132.7			202.6	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	80.0	33.0	26.0	40.0	51.0	8.3	50.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	75.0	29.0	21.0	36.0	46.0	7.0	43.0					
Max Q Clear Time (g_c+19), s	77.0	31.0	23.0	38.0	48.0	3.6	47.7					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			180.4									
HCM 6th LOS			F									

Intersection						
Int Delay, s/veh	13.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	348	167	23	229	314	120
Future Vol, veh/h	348	167	23	229	314	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	-	450	100	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	378	182	25	249	341	130

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	560	0	677 378
Stage 1	-	-	-	-	378 -
Stage 2	-	-	-	-	299 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	1006	-	417 667
Stage 1	-	-	-	-	691 -
Stage 2	-	-	-	-	750 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1006	-	407 667
Mov Cap-2 Maneuver	-	-	-	-	407 -
Stage 1	-	-	-	-	691 -
Stage 2	-	-	-	-	731 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	36.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	407	667	-	-	1006	-
HCM Lane V/C Ratio	0.839	0.196	-	-	0.025	-
HCM Control Delay (s)	45.8	11.7	-	-	8.7	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	7.9	0.7	-	-	0.1	-

Intersection						
Int Delay, s/veh	13.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	348	167	23	229	314	120
Future Vol, veh/h	348	167	23	229	314	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	-	450	100	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	378	182	25	249	341	130

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	560	0	677 378
Stage 1	-	-	-	-	378 -
Stage 2	-	-	-	-	299 -
Critical Hdwy	-	-	4.13	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.227	-	3.527 3.327
Pot Cap-1 Maneuver	-	-	1006	-	417 667
Stage 1	-	-	-	-	691 -
Stage 2	-	-	-	-	750 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1006	-	407 667
Mov Cap-2 Maneuver	-	-	-	-	407 -
Stage 1	-	-	-	-	691 -
Stage 2	-	-	-	-	731 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	36.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	407	667	-	-	1006	-
HCM Lane V/C Ratio	0.839	0.196	-	-	0.025	-
HCM Control Delay (s)	45.8	11.7	-	-	8.7	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	7.9	0.7	-	-	0.1	-

Intersection						
Int Delay, s/veh	13073					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	895	181	386	1708	314	372
Future Vol, veh/h	895	181	386	1708	314	372
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	100	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	973	197	420	1857	341	404

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1170	0	3670	973
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	2697	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	593	-	~ 5	~ 305
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	~ 50	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	593	-	~ 1	~ 305
Mov Cap-2 Maneuver	-	-	-	-	~ 1	-
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	~ 15	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	\$ 73469.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	1	305	-	-	593	-
HCM Lane V/C Ratio	341.304	1.326	-	-	0.708	-
HCM Control Delay (s)	\$ 160271.2	201.5	-	-	24.4	-
HCM Lane LOS	F	F	-	-	C	-
HCM 95th %tile Q(veh)	45.4	20	-	-	5.7	-

Notes			
-:	Volume exceeds capacity	⋄:	Delay exceeds 300s
+	Computation Not Defined	*	All major volume in platoon

Intersection						
Int Delay, s/veh	13073					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	895	181	386	1708	314	372
Future Vol, veh/h	895	181	386	1708	314	372
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	100	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	973	197	420	1857	341	404

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1170	0	3670	973
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	2697	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	593	-	~ 5	~ 305
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	~ 50	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	593	-	~ 1	~ 305
Mov Cap-2 Maneuver	-	-	-	-	~ 1	-
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	~ 15	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	\$ 73469.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	1	305	-	-	593	-
HCM Lane V/C Ratio	341.304	1.326	-	-	0.708	-
HCM Control Delay (s)	\$ 160271.2	201.5	-	-	24.4	-
HCM Lane LOS	F	F	-	-	C	-
HCM 95th %tile Q(veh)	45.4	20	-	-	5.7	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection							
Intersection Delay, s/veh43.1							
Intersection LOS E							
Approach	EB		WB		NB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	2		2		2		
Adj Approach Flow, veh/h	1602		1320		635		
Demand Flow Rate, veh/h	1651		1360		654		
Vehicles Circulating, veh/h	337		74		1392		
Vehicles Exiting, veh/h	1097		1972		596		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	20.5		8.6		172.0		
Approach LOS	C		A		F		
Lane	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	L	TR	
Assumed Moves	LT	TR	LT	TR	L	TR	
RT Channelized							
Lane Util	0.470	0.530	0.470	0.530	0.113	0.887	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	776	875	639	721	74	580	
Cap Entry Lane, veh/h	990	1066	1261	1334	375	435	
Entry HV Adj Factor	0.971	0.971	0.971	0.970	0.973	0.971	
Flow Entry, veh/h	753	849	620	700	72	563	
Cap Entry, veh/h	961	1035	1224	1294	365	422	
V/C Ratio	0.784	0.821	0.507	0.541	0.197	1.334	
Control Delay, s/veh	19.7	21.2	8.5	8.7	13.3	192.3	
LOS	C	C	A	A	B	F	
95th %tile Queue, veh	8	10	3	3	1	26	

Intersection							
Intersection Delay, s/veh61.9							
Intersection LOS F							
Approach	EB		WB		NB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	2		2		2		
Adj Approach Flow, veh/h	1170		2277		745		
Demand Flow Rate, veh/h	1205		2346		767		
Vehicles Circulating, veh/h	433		351		1002		
Vehicles Exiting, veh/h	2264		1418		636		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	13.8		99.7		22.0		
Approach LOS	B		F		C		
Lane	Left	Right	Left	Right	Left	Right	
Designated Moves	LT	TR	LT	TR	L	TR	
Assumed Moves	LT	TR	LT	TR	L	TR	
RT Channelized							
Lane Util	0.470	0.530	0.470	0.530	0.458	0.542	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	566	639	1103	1243	351	416	
Cap Entry Lane, veh/h	906	983	977	1054	537	606	
Entry HV Adj Factor	0.971	0.970	0.970	0.971	0.972	0.971	
Flow Entry, veh/h	550	620	1070	1207	341	404	
Cap Entry, veh/h	880	954	948	1023	522	588	
V/C Ratio	0.624	0.650	1.129	1.180	0.654	0.687	
Control Delay, s/veh	13.8	13.8	90.3	108.1	22.3	21.9	
LOS	B	B	F	F	C	C	
95th %tile Queue, veh	4	5	29	36	5	5	

Intersection									
Intersection Delay, s/veh	5.9								
Intersection LOS	A								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	487		51		549		275		
Demand Flow Rate, veh/h	502		52		566		283		
Vehicles Circulating, veh/h	283		591		189		260		
Vehicles Exiting, veh/h	260		164		596		383		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	7.1		4.7		5.5		4.5		
Approach LOS	A		A		A		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	L	TR	L	TR	LT	TR	
Assumed Moves	L	TR	L	TR	L	TR	LT	TR	
RT Channelized									
Lane Util	0.110	0.890	0.288	0.712	0.367	0.633	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	55	447	15	37	208	358	133	150	
Cap Entry Lane, veh/h	1040	1116	784	859	1134	1209	1063	1138	
Entry HV Adj Factor	0.964	0.971	1.000	0.971	0.971	0.971	0.972	0.972	
Flow Entry, veh/h	53	434	15	36	202	347	129	146	
Cap Entry, veh/h	1003	1084	784	834	1102	1174	1033	1107	
V/C Ratio	0.053	0.400	0.019	0.043	0.183	0.296	0.125	0.132	
Control Delay, s/veh	4.1	7.5	4.8	4.7	4.9	5.8	4.6	4.4	
LOS	A	A	A	A	A	A	A	A	
95th %tile Queue, veh	0	2	0	0	1	1	0	0	



Intersection									
Intersection Delay, s/veh	5.9								
Intersection LOS	A								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	487		51		549		275		
Demand Flow Rate, veh/h	502		52		566		283		
Vehicles Circulating, veh/h	283		591		189		260		
Vehicles Exiting, veh/h	260		164		596		383		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	7.1		4.7		5.5		4.5		
Approach LOS	A		A		A		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	L	TR	L	TR	LT	TR	
Assumed Moves	L	TR	L	TR	L	TR	LT	TR	
RT Channelized									
Lane Util	0.110	0.890	0.288	0.712	0.367	0.633	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	55	447	15	37	208	358	133	150	
Cap Entry Lane, veh/h	1040	1116	784	859	1134	1209	1063	1138	
Entry HV Adj Factor	0.964	0.971	1.000	0.971	0.971	0.971	0.972	0.972	
Flow Entry, veh/h	53	434	15	36	202	347	129	146	
Cap Entry, veh/h	1003	1084	784	834	1102	1174	1033	1107	
V/C Ratio	0.053	0.400	0.019	0.043	0.183	0.296	0.125	0.132	
Control Delay, s/veh	4.1	7.5	4.8	4.7	4.9	5.8	4.6	4.4	
LOS	A	A	A	A	A	A	A	A	
95th %tile Queue, veh	0	2	0	0	1	1	0	0	

Intersection									
Intersection Delay, s/veh	956.2								
Intersection LOS	F								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1356		2418		706		1218		
Demand Flow Rate, veh/h	1397		2490		727		1255		
Vehicles Circulating, veh/h	874		1234		1420		1943		
Vehicles Exiting, veh/h	2324		913		851		1781		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	111.3		1799.6		82.4		728.6		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	L	TR	L	TR	LT	TR	
Assumed Moves	L	TR	L	TR	L	TR	LT	TR	
RT Channelized									
Lane Util	0.384	0.616	0.006	0.994	0.352	0.648	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	537	860	15	2475	256	471	590	665	
Cap Entry Lane, veh/h	604	676	434	497	366	425	226	272	
Entry HV Adj Factor	0.970	0.971	1.000	0.971	0.973	0.971	0.970	0.971	
Flow Entry, veh/h	521	835	15	2403	249	457	572	645	
Cap Entry, veh/h	586	656	434	483	356	412	219	264	
V/C Ratio	0.889	1.273	0.035	4.976	0.700	1.109	2.611	2.443	
Control Delay, s/veh	41.1	155.1	8.8	1810.8	34.1	108.7	772.0	690.2	
LOS	E	F	A	F	D	F	F	F	
95th %tile Queue, veh	10	32	0	244	5	16	49	52	

Intersection									
Intersection Delay, s/veh	956.2								
Intersection LOS	F								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1356		2418		706		1218		
Demand Flow Rate, veh/h	1397		2490		727		1255		
Vehicles Circulating, veh/h	874		1234		1420		1943		
Vehicles Exiting, veh/h	2324		913		851		1781		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	111.3		1799.6		82.4		728.6		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	L	TR	L	TR	LT	TR	
Assumed Moves	L	TR	L	TR	L	TR	LT	TR	
RT Channelized									
Lane Util	0.384	0.616	0.006	0.994	0.352	0.648	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	537	860	15	2475	256	471	590	665	
Cap Entry Lane, veh/h	604	676	434	497	366	425	226	272	
Entry HV Adj Factor	0.970	0.971	1.000	0.971	0.973	0.971	0.970	0.971	
Flow Entry, veh/h	521	835	15	2403	249	457	572	645	
Cap Entry, veh/h	586	656	434	483	356	412	219	264	
V/C Ratio	0.889	1.273	0.035	4.976	0.700	1.109	2.611	2.443	
Control Delay, s/veh	41.1	155.1	8.8	1810.8	34.1	108.7	772.0	690.2	
LOS	E	F	A	F	D	F	F	F	
95th %tile Queue, veh	10	32	0	244	5	16	49	52	

HCM 6th Signalized Intersection Summary  
216: Campus Pkwy & Boden Rd

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗		↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗		↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	92	1033	192	137	812	535	139	407	96	359	399	45
Future Volume (veh/h)	92	1033	192	137	812	535	139	407	96	359	399	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	100	1123	209	149	883	582	151	442	104	390	434	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	256	1160	216	261	980	656	167	729	170	478	560	
Arrive On Green	0.08	0.27	0.27	0.09	0.28	0.28	0.09	0.26	0.26	0.14	0.30	0.00
Sat Flow, veh/h	1767	4291	798	1767	3526	1572	1767	2837	662	3428	1856	1635
Grp Volume(v), veh/h	100	884	448	149	883	582	151	273	273	390	434	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1712	1767	1763	1572	1767	1763	1736	1714	1856	1635
Q Serve(g_s), s	2.9	19.1	19.1	4.4	17.8	20.6	6.3	10.1	10.2	8.2	15.8	0.0
Cycle Q Clear(g_c), s	2.9	19.1	19.1	4.4	17.8	20.6	6.3	10.1	10.2	8.2	15.8	0.0
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	256	913	463	261	980	656	167	453	446	478	560	
V/C Ratio(X)	0.39	0.97	0.97	0.57	0.90	0.89	0.90	0.60	0.61	0.82	0.78	
Avail Cap(c_a), veh/h	278	913	463	269	980	656	167	453	446	510	577	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	26.7	26.7	19.2	25.7	19.9	33.2	24.2	24.2	30.9	23.6	0.0
Incr Delay (d2), s/veh	1.0	22.3	33.7	2.7	11.2	13.9	42.9	5.9	6.1	9.5	6.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	9.7	11.3	1.8	8.2	10.3	4.5	4.6	4.6	3.7	7.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	48.9	60.4	21.9	37.0	33.8	76.0	30.0	30.4	40.4	30.0	0.0
LnGrp LOS	B	D	E	C	D	C	E	C	C	D	C	
Approach Vol, veh/h		1432			1614			697			824	
Approach Delay, s/veh		50.5			34.4			40.1			34.9	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.3	24.0	10.7	25.0	11.0	27.3	10.1	25.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	19.0	7.0	20.0	7.0	23.0	7.0	20.0					
Max Q Clear Time (g_c+M), s	12.2	6.4	21.1	8.3	17.8	4.9	22.6					
Green Ext Time (p_c), s	0.1	1.7	0.0	0.0	0.0	1.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
216: Campus Pkwy & Boden Rd

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑		↖ ↗	↑ ↑	↖	↖	↑ ↑		↖ ↗	↑	↖
Traffic Volume (veh/h)	92	1033	192	137	812	535	139	407	96	359	399	45
Future Volume (veh/h)	92	1033	192	137	812	535	139	407	96	359	399	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	100	1123	209	149	883	582	151	442	104	390	434	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	256	1160	216	261	980	656	167	729	170	478	560	
Arrive On Green	0.08	0.27	0.27	0.09	0.28	0.28	0.09	0.26	0.26	0.14	0.30	0.00
Sat Flow, veh/h	1767	4291	798	1767	3526	1572	1767	2837	662	3428	1856	1635
Grp Volume(v), veh/h	100	884	448	149	883	582	151	273	273	390	434	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1712	1767	1763	1572	1767	1763	1736	1714	1856	1635
Q Serve(g_s), s	2.9	19.1	19.1	4.4	17.8	20.6	6.3	10.1	10.2	8.2	15.8	0.0
Cycle Q Clear(g_c), s	2.9	19.1	19.1	4.4	17.8	20.6	6.3	10.1	10.2	8.2	15.8	0.0
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	256	913	463	261	980	656	167	453	446	478	560	
V/C Ratio(X)	0.39	0.97	0.97	0.57	0.90	0.89	0.90	0.60	0.61	0.82	0.78	
Avail Cap(c_a), veh/h	278	913	463	269	980	656	167	453	446	510	577	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	26.7	26.7	19.2	25.7	19.9	33.2	24.2	24.2	30.9	23.6	0.0
Incr Delay (d2), s/veh	1.0	22.3	33.7	2.7	11.2	13.9	42.9	5.9	6.1	9.5	6.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	9.7	11.3	1.8	8.2	10.3	4.5	4.6	4.6	3.7	7.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	48.9	60.4	21.9	37.0	33.8	76.0	30.0	30.4	40.4	30.0	0.0
LnGrp LOS	B	D	E	C	D	C	E	C	C	D	C	
Approach Vol, veh/h		1432			1614			697			824	
Approach Delay, s/veh		50.5			34.4			40.1			34.9	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.3	24.0	10.7	25.0	11.0	27.3	10.1	25.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	19.0	7.0	20.0	7.0	23.0	7.0	20.0					
Max Q Clear Time (g_c+M), s	12.2	6.4	21.1	8.3	17.8	4.9	22.6					
Green Ext Time (p_c), s	0.1	1.7	0.0	0.0	0.0	1.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
216: Campus Pkwy & Boden Rd

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗			↖ ↗		↖	↖	↖ ↗		↖ ↗	↖	↖
Traffic Volume (veh/h)	647	2505	345	332	2178	1278	301	1229	127	879	1175	606
Future Volume (veh/h)	647	2505	345	332	2178	1278	301	1229	127	879	1175	606
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	703	2723	375	361	2367	1389	327	1336	138	955	1277	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	306	1660	219	177	1034	660	165	925	95	434	594	
Arrive On Green	0.17	0.37	0.37	0.10	0.29	0.29	0.09	0.29	0.29	0.13	0.32	0.00
Sat Flow, veh/h	1767	4528	597	1767	3526	1572	1767	3227	332	3428	1856	1635
Grp Volume(v), veh/h	703	1999	1099	361	2367	1389	327	727	747	955	1277	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1748	1767	1763	1572	1767	1763	1796	1714	1856	1635
Q Serve(g_s), s	26.0	55.0	55.0	15.0	44.0	44.0	14.0	43.0	43.0	19.0	48.0	0.0
Cycle Q Clear(g_c), s	26.0	55.0	55.0	15.0	44.0	44.0	14.0	43.0	43.0	19.0	48.0	0.0
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	306	1238	641	177	1034	660	165	505	515	434	594	
V/C Ratio(X)	2.30	1.61	1.71	2.04	2.29	2.10	1.98	1.44	1.45	2.20	2.15	
Avail Cap(c_a), veh/h	306	1238	641	177	1034	660	165	505	515	434	594	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	47.5	47.5	67.5	53.0	43.5	68.0	53.5	53.5	65.5	51.0	0.0
Incr Delay (d2), s/veh	593.0	280.4	327.9	488.4	583.0	501.5	463.2	208.5	213.7	547.1	523.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	70.5	81.5	30.6	102.7	115.5	27.5	47.9	49.6	41.2	107.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	655.0	327.9	375.4	555.9	636.0	545.0	531.2	262.0	267.2	612.6	574.4	0.0
LnGrp LOS	F	F	F	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h	3801				4117				1801		2232	
Approach Delay, s/veh	402.1				598.3				313.0		590.8	
Approach LOS	F				F				F		F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.0	48.0	19.0	60.0	18.0	53.0	30.0	49.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	43.0	43.0	15.0	55.0	14.0	48.0	26.0	44.0				
Max Q Clear Time (g_c+D), s	45.0	45.0	17.0	57.0	16.0	50.0	28.0	46.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	491.5
HCM 6th LOS	F

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
216: Campus Pkwy & Boden Rd

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘
Traffic Volume (veh/h)	647	2505	345	332	2178	1278	301	1229	127	879	1175	606
Future Volume (veh/h)	647	2505	345	332	2178	1278	301	1229	127	879	1175	606
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	703	2723	375	361	2367	1389	327	1336	138	955	1277	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	306	1660	219	177	1034	660	165	925	95	434	594	
Arrive On Green	0.17	0.37	0.37	0.10	0.29	0.29	0.09	0.29	0.29	0.13	0.32	0.00
Sat Flow, veh/h	1767	4528	597	1767	3526	1572	1767	3227	332	3428	1856	1635
Grp Volume(v), veh/h	703	1999	1099	361	2367	1389	327	727	747	955	1277	0
Grp Sat Flow(s),veh/h/ln	1767	1689	1748	1767	1763	1572	1767	1763	1796	1714	1856	1635
Q Serve(g_s), s	26.0	55.0	55.0	15.0	44.0	44.0	14.0	43.0	43.0	19.0	48.0	0.0
Cycle Q Clear(g_c), s	26.0	55.0	55.0	15.0	44.0	44.0	14.0	43.0	43.0	19.0	48.0	0.0
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	306	1238	641	177	1034	660	165	505	515	434	594	
V/C Ratio(X)	2.30	1.61	1.71	2.04	2.29	2.10	1.98	1.44	1.45	2.20	2.15	
Avail Cap(c_a), veh/h	306	1238	641	177	1034	660	165	505	515	434	594	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	47.5	47.5	67.5	53.0	43.5	68.0	53.5	53.5	65.5	51.0	0.0
Incr Delay (d2), s/veh	593.0	280.4	327.9	488.4	583.0	501.5	463.2	208.5	213.7	547.1	523.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	70.5	81.5	30.6	102.7	115.5	27.5	47.9	49.6	41.2	107.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	655.0	327.9	375.4	555.9	636.0	545.0	531.2	262.0	267.2	612.6	574.4	0.0
LnGrp LOS	F	F	F	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		3801			4117			1801		2232		
Approach Delay, s/veh		402.1			598.3			313.0		590.8		
Approach LOS		F			F			F		F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.0	48.0	19.0	60.0	18.0	53.0	30.0	49.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	43.0	43.0	15.0	55.0	14.0	48.0	26.0	44.0				
Max Q Clear Time (g_c+D), s	45.0	45.0	17.0	57.0	16.0	50.0	28.0	46.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	491.5
HCM 6th LOS	F

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
 216: Campus Pkwy & Boden Rd

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↔		↔↔	↑↑	↔	↔↔	↑↔		↔↔	↑	↔
Traffic Volume (veh/h)	454	1883	127	120	1722	375	204	524	93	816	766	768
Future Volume (veh/h)	454	1883	127	120	1722	375	204	524	93	816	766	768
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	493	2047	138	130	1872	408	222	570	101	887	833	835
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	366	2101	141	160	1316	881	160	639	113	640	656	752
Arrive On Green	0.11	0.43	0.43	0.05	0.37	0.37	0.05	0.21	0.21	0.19	0.35	0.35
Sat Flow, veh/h	3428	4849	325	3428	3526	1572	3428	2994	529	3428	1856	1635
Grp Volume(v), veh/h	493	1422	763	130	1872	408	222	335	336	887	833	835
Grp Sat Flow(s),veh/h/ln	1714	1689	1797	1714	1763	1572	1714	1763	1760	1714	1856	1635
Q Serve(g_s), s	16.0	61.8	62.7	5.6	56.0	23.1	7.0	27.7	27.8	28.0	53.0	53.0
Cycle Q Clear(g_c), s	16.0	61.8	62.7	5.6	56.0	23.1	7.0	27.7	27.8	28.0	53.0	53.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	366	1463	779	160	1316	881	160	376	376	640	656	752
V/C Ratio(X)	1.35	0.97	0.98	0.81	1.42	0.46	1.39	0.89	0.89	1.39	1.27	1.11
Avail Cap(c_a), veh/h	366	1463	779	160	1316	881	160	376	376	640	656	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.0	41.6	41.8	70.8	47.0	19.6	71.5	57.3	57.4	61.0	48.5	40.5
Incr Delay (d2), s/veh	173.8	17.2	27.1	26.3	194.5	0.4	208.2	25.6	26.3	183.3	133.5	67.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	28.1	32.4	3.0	59.2	8.2	7.7	14.8	15.0	28.2	48.0	40.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	240.8	58.8	69.0	97.1	241.5	20.0	279.7	82.9	83.6	244.3	182.0	107.8
LnGrp LOS	F	E	E	F	F	B	F	F	F	F	F	F
Approach Vol, veh/h		2678			2410			893			2555	
Approach Delay, s/veh		95.2			196.2			132.1			179.4	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.0	37.0	11.0	70.0	11.0	58.0	20.0	61.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	28.0	32.0	7.0	65.0	7.0	53.0	16.0	56.0				
Max Q Clear Time (g_c+Q), s	30.0	29.8	7.6	64.7	9.0	55.0	18.0	58.0				
Green Ext Time (p_c), s	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			152.8									
HCM 6th LOS			F									



HCM 6th Signalized Intersection Summary  
216: Campus Pkwy & Boden Rd

Future PM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑		↔↔	↑↑	↔	↔↔	↑↑		↔↔	↑	↔
Traffic Volume (veh/h)	647	2505	345	332	2178	1278	301	1229	127	879	1175	606
Future Volume (veh/h)	647	2505	345	332	2178	1278	301	1229	127	879	1175	606
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1930
Adj Flow Rate, veh/h	703	2723	375	361	2367	1389	327	1336	138	955	1277	659
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	389	1751	231	229	1199	765	229	904	93	503	668	774
Arrive On Green	0.11	0.39	0.39	0.07	0.34	0.34	0.07	0.28	0.28	0.15	0.36	0.36
Sat Flow, veh/h	3428	4528	597	3428	3526	1572	3428	3227	332	3428	1856	1635
Grp Volume(v), veh/h	703	1999	1099	361	2367	1389	327	727	747	955	1277	659
Grp Sat Flow(s),veh/h/ln	1714	1689	1748	1714	1763	1572	1714	1763	1796	1714	1856	1635
Q Serve(g_s), s	17.0	58.0	58.0	10.0	51.0	51.0	10.0	42.0	42.0	22.0	54.0	53.3
Cycle Q Clear(g_c), s	17.0	58.0	58.0	10.0	51.0	51.0	10.0	42.0	42.0	22.0	54.0	53.3
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	389	1306	676	229	1199	765	229	494	503	503	668	774
V/C Ratio(X)	1.81	1.53	1.63	1.58	1.97	1.82	1.43	1.47	1.49	1.90	1.91	0.85
Avail Cap(c_a), veh/h	389	1306	676	229	1199	765	229	494	503	503	668	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	46.0	46.0	70.0	49.5	38.5	70.0	54.0	54.0	64.0	48.0	34.8
Incr Delay (d2), s/veh	374.3	242.9	288.1	280.7	441.6	371.9	217.2	223.6	229.0	412.1	415.8	9.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.5	67.5	78.3	13.2	95.3	105.6	11.2	48.9	50.6	38.2	101.2	22.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	440.8	288.9	334.1	350.7	491.1	410.4	287.2	277.6	283.0	476.1	463.8	43.8
LnGrp LOS	F	F	F	F	F	F	F	F	F	F	F	D
Approach Vol, veh/h		3801			4117			1801			2891	
Approach Delay, s/veh		330.1			451.6			281.6			372.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.0	47.0	14.0	63.0	14.0	59.0	21.0	56.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	22.0	42.0	10.0	58.0	10.0	54.0	17.0	51.0				
Max Q Clear Time (g_c+Y+Rc), s	24.0	44.0	12.0	60.0	12.0	56.0	19.0	53.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			372.5									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
 217: Corporate Pkwy & Campus Pkwy

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↗		↖	↗	
Traffic Volume (veh/h)	90	1335	49	125	1254	28	38	28	139	17	27	142
Future Volume (veh/h)	90	1335	49	125	1254	28	38	28	139	17	27	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	1451	53	136	1363	30	41	30	151	18	29	154
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	174	1449	53	196	1537	34	372	65	329	362	55	293
Arrive On Green	0.10	0.29	0.29	0.11	0.30	0.30	0.06	0.24	0.24	0.03	0.22	0.22
Sat Flow, veh/h	1767	5016	183	1767	5100	112	1767	267	1346	1767	255	1356
Grp Volume(v), veh/h	98	977	527	136	903	490	41	0	181	18	0	183
Grp Sat Flow(s),veh/h/ln	1767	1689	1823	1767	1689	1835	1767	0	1613	1767	0	1611
Q Serve(g_s), s	2.9	16.0	16.0	4.1	14.1	14.1	1.0	0.0	5.3	0.4	0.0	5.6
Cycle Q Clear(g_c), s	2.9	16.0	16.0	4.1	14.1	14.1	1.0	0.0	5.3	0.4	0.0	5.6
Prop In Lane	1.00		0.10	1.00		0.06	1.00		0.83	1.00		0.84
Lane Grp Cap(c), veh/h	174	976	527	196	1018	553	372	0	395	362	0	348
V/C Ratio(X)	0.56	1.00	1.00	0.69	0.89	0.89	0.11	0.00	0.46	0.05	0.00	0.53
Avail Cap(c_a), veh/h	223	976	527	223	1018	553	491	0	395	531	0	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.8	19.7	19.7	23.7	18.4	18.4	15.2	0.0	17.8	16.0	0.0	19.2
Incr Delay (d2), s/veh	2.8	29.1	39.5	7.7	9.6	16.0	0.1	0.0	0.8	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	9.0	11.2	1.9	5.8	7.3	0.4	0.0	1.9	0.2	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	48.8	59.2	31.4	28.0	34.4	15.3	0.0	18.6	16.1	0.0	20.6
LnGrp LOS	C	F	F	C	C	C	B	A	B	B	A	C
Approach Vol, veh/h	1602			1529			222			201		
Approach Delay, s/veh	50.8			30.4			18.0			20.2		
Approach LOS	D			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	18.5	10.1	21.0	7.3	17.0	9.4	21.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	7.0	16.0	7.0	12.0	7.0	16.0					
Max Q Clear Time (g_c+1), s	7.3	6.1	18.0	3.0	7.6	4.9	16.1					
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.4	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	38.3											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary  
 217: Corporate Pkwy & Campus Pkwy

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↗		↖	↗	
Traffic Volume (veh/h)	90	1335	49	125	1254	28	38	28	139	17	27	142
Future Volume (veh/h)	90	1335	49	125	1254	28	38	28	139	17	27	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	1451	53	136	1363	30	41	30	151	18	29	154
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	174	1449	53	196	1537	34	372	65	329	362	55	293
Arrive On Green	0.10	0.29	0.29	0.11	0.30	0.30	0.06	0.24	0.24	0.03	0.22	0.22
Sat Flow, veh/h	1767	5016	183	1767	5100	112	1767	267	1346	1767	255	1356
Grp Volume(v), veh/h	98	977	527	136	903	490	41	0	181	18	0	183
Grp Sat Flow(s),veh/h/ln	1767	1689	1823	1767	1689	1835	1767	0	1613	1767	0	1611
Q Serve(g_s), s	2.9	16.0	16.0	4.1	14.1	14.1	1.0	0.0	5.3	0.4	0.0	5.6
Cycle Q Clear(g_c), s	2.9	16.0	16.0	4.1	14.1	14.1	1.0	0.0	5.3	0.4	0.0	5.6
Prop In Lane	1.00		0.10	1.00		0.06	1.00		0.83	1.00		0.84
Lane Grp Cap(c), veh/h	174	976	527	196	1018	553	372	0	395	362	0	348
V/C Ratio(X)	0.56	1.00	1.00	0.69	0.89	0.89	0.11	0.00	0.46	0.05	0.00	0.53
Avail Cap(c_a), veh/h	223	976	527	223	1018	553	491	0	395	531	0	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.8	19.7	19.7	23.7	18.4	18.4	15.2	0.0	17.8	16.0	0.0	19.2
Incr Delay (d2), s/veh	2.8	29.1	39.5	7.7	9.6	16.0	0.1	0.0	0.8	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	9.0	11.2	1.9	5.8	7.3	0.4	0.0	1.9	0.2	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	48.8	59.2	31.4	28.0	34.4	15.3	0.0	18.6	16.1	0.0	20.6
LnGrp LOS	C	F	F	C	C	C	B	A	B	B	A	C
Approach Vol, veh/h	1602			1529			222			201		
Approach Delay, s/veh	50.8			30.4			18.0			20.2		
Approach LOS	D			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	18.5	10.1	21.0	7.3	17.0	9.4	21.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	7.0	16.0	7.0	12.0	7.0	16.0					
Max Q Clear Time (g_c+1), s	7.3	6.1	18.0	3.0	7.6	4.9	16.1					
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.4	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	38.3											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary  
 217: Corporate Pkwy & Campus Pkwy

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↗		↖	↗	
Traffic Volume (veh/h)	90	3051	356	206	3046	28	418	42	239	17	56	273
Future Volume (veh/h)	90	3051	356	206	3046	28	418	42	239	17	56	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	3316	387	224	3311	30	454	46	260	18	61	297
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	2187	246	165	2692	24	306	70	395	221	39	188
Arrive On Green	0.05	0.47	0.47	0.09	0.52	0.52	0.17	0.29	0.29	0.02	0.14	0.14
Sat Flow, veh/h	1767	4620	519	1767	5177	47	1767	242	1367	1767	275	1339
Grp Volume(v), veh/h	98	2390	1313	224	2156	1185	454	0	306	18	0	358
Grp Sat Flow(s),veh/h/ln	1767	1689	1762	1767	1689	1847	1767	0	1609	1767	0	1614
Q Serve(g_s), s	7.0	71.0	71.0	14.0	78.0	78.0	26.0	0.0	25.0	1.3	0.0	21.0
Cycle Q Clear(g_c), s	7.0	71.0	71.0	14.0	78.0	78.0	26.0	0.0	25.0	1.3	0.0	21.0
Prop In Lane	1.00		0.29	1.00		0.03	1.00		0.85	1.00		0.83
Lane Grp Cap(c), veh/h	82	1598	834	165	1756	961	306	0	465	221	0	226
V/C Ratio(X)	1.19	1.50	1.57	1.36	1.23	1.23	1.48	0.00	0.66	0.08	0.00	1.58
Avail Cap(c_a), veh/h	82	1598	834	165	1756	961	306	0	465	260	0	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.5	39.5	39.5	68.0	36.0	36.0	62.0	0.0	46.9	52.9	0.0	64.5
Incr Delay (d2), s/veh	158.4	226.1	264.3	195.3	107.8	114.2	233.7	0.0	3.4	0.2	0.0	282.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	78.1	90.3	15.2	56.3	63.3	31.6	0.0	10.5	0.6	0.0	26.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	229.9	265.6	303.8	263.3	143.8	150.2	295.7	0.0	50.3	53.1	0.0	347.3
LnGrp LOS	F	F	F	F	F	F	F	A	D	D	A	F
Approach Vol, veh/h	3801			3565			760			376		
Approach Delay, s/veh	277.9			153.4			196.9			333.2		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	48.3	18.0	76.0	30.0	26.0	11.0	83.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	40.0	14.0	71.0	26.0	21.0	7.0	78.0					
Max Q Clear Time (g_c+1), s	27.0	16.0	73.0	28.0	23.0	9.0	80.0					
Green Ext Time (p_c), s	0.0	1.6	0.0	0.0	0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay	220.9
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
217: Corporate Pkwy & Campus Pkwy

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖ ↑	↑		↖ ↑	↑	
Traffic Volume (veh/h)	90	3051	356	206	3046	28	418	42	239	17	56	273
Future Volume (veh/h)	90	3051	356	206	3046	28	418	42	239	17	56	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	3316	387	224	3311	30	454	46	260	18	61	297
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	2187	246	165	2692	24	306	70	395	221	39	188
Arrive On Green	0.05	0.47	0.47	0.09	0.52	0.52	0.17	0.29	0.29	0.02	0.14	0.14
Sat Flow, veh/h	1767	4620	519	1767	5177	47	1767	242	1367	1767	275	1339
Grp Volume(v), veh/h	98	2390	1313	224	2156	1185	454	0	306	18	0	358
Grp Sat Flow(s),veh/h/ln	1767	1689	1762	1767	1689	1847	1767	0	1609	1767	0	1614
Q Serve(g_s), s	7.0	71.0	71.0	14.0	78.0	78.0	26.0	0.0	25.0	1.3	0.0	21.0
Cycle Q Clear(g_c), s	7.0	71.0	71.0	14.0	78.0	78.0	26.0	0.0	25.0	1.3	0.0	21.0
Prop In Lane	1.00		0.29	1.00		0.03	1.00		0.85	1.00		0.83
Lane Grp Cap(c), veh/h	82	1598	834	165	1756	961	306	0	465	221	0	226
V/C Ratio(X)	1.19	1.50	1.57	1.36	1.23	1.23	1.48	0.00	0.66	0.08	0.00	1.58
Avail Cap(c_a), veh/h	82	1598	834	165	1756	961	306	0	465	260	0	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.5	39.5	39.5	68.0	36.0	36.0	62.0	0.0	46.9	52.9	0.0	64.5
Incr Delay (d2), s/veh	158.4	226.1	264.3	195.3	107.8	114.2	233.7	0.0	3.4	0.2	0.0	282.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	78.1	90.3	15.2	56.3	63.3	31.6	0.0	10.5	0.6	0.0	26.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	229.9	265.6	303.8	263.3	143.8	150.2	295.7	0.0	50.3	53.1	0.0	347.3
LnGrp LOS	F	F	F	F	F	F	F	A	D	D	A	F
Approach Vol, veh/h	3801		3565		760		376					
Approach Delay, s/veh	277.9		153.4		196.9		333.2					
Approach LOS	F		F		F		F					
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	48.3	18.0	76.0	30.0	26.0	11.0	83.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	40.0	14.0	71.0	26.0	21.0	7.0	78.0					
Max Q Clear Time (g_c+1), s	27.0	16.0	73.0	28.0	23.0	9.0	80.0					
Green Ext Time (p_c), s	0.0	1.6	0.0	0.0	0.0	0.0	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			220.9									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary  
 217: Corporate Pkwy & Campus Pkwy

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	2419	157	101	2101	6	70	11	93	1	5	49
Future Volume (veh/h)	174	2419	157	101	2101	6	70	11	93	1	5	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	189	2629	171	110	2284	7	76	12	101	1	5	53
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	199	2628	921	138	2524	8	229	368	435	254	247	387
Arrive On Green	0.11	0.52	0.52	0.08	0.48	0.48	0.07	0.20	0.20	0.00	0.13	0.13
Sat Flow, veh/h	1767	5066	1572	1767	5214	16	3428	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	189	2629	171	110	1479	812	76	12	101	1	5	53
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1853	1714	1856	1572	1767	1856	1572
Q Serve(g_s), s	9.4	46.0	4.5	5.4	35.7	35.7	1.9	0.5	4.4	0.0	0.2	2.3
Cycle Q Clear(g_c), s	9.4	46.0	4.5	5.4	35.7	35.7	1.9	0.5	4.4	0.0	0.2	2.3
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	2628	921	138	1635	897	229	368	435	254	247	387
V/C Ratio(X)	0.95	1.00	0.19	0.80	0.90	0.91	0.33	0.03	0.23	0.00	0.02	0.14
Avail Cap(c_a), veh/h	199	2628	921	139	1637	898	271	368	435	390	251	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	21.3	8.5	40.2	21.0	21.0	39.5	28.7	24.8	33.2	33.4	26.1
Incr Delay (d2), s/veh	49.1	17.7	0.1	26.4	7.5	12.6	0.8	0.0	0.3	0.0	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	19.4	1.3	3.3	13.8	16.4	0.8	0.2	1.6	0.0	0.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	88.1	39.0	8.6	66.6	28.5	33.6	40.3	28.7	25.1	33.2	33.4	26.2
LnGrp LOS	F	F	A	E	C	C	D	C	C	C	C	C
Approach Vol, veh/h		2989			2401			189			59	
Approach Delay, s/veh		40.4			32.0			31.4			27.0	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.2	22.6	10.9	51.0	9.9	16.8	14.0	47.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	7.0	46.0	7.0	12.0	10.0	43.0					
Max Q Clear Time (g_c+1/2g), s	6.4	7.4	48.0	3.9	4.3	11.4	37.7					
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.1	0.0	4.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			36.4									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary  
 217: Corporate Pkwy & Campus Pkwy

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘	↑↑↑		↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	90	3051	356	206	3046	28	418	42	239	17	56	273
Future Volume (veh/h)	90	3051	356	206	3046	28	418	42	239	17	56	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	98	3316	387	224	3311	30	454	46	260	18	61	297
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	94	2769	860	188	3106	28	389	375	318	212	210	178
Arrive On Green	0.05	0.55	0.55	0.11	0.60	0.60	0.11	0.20	0.20	0.02	0.11	0.11
Sat Flow, veh/h	1767	5066	1572	1767	5177	47	3428	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	98	3316	387	224	2156	1185	454	46	260	18	61	297
Grp Sat Flow(s),veh/h/ln	1767	1689	1572	1767	1689	1847	1714	1856	1572	1767	1856	1572
Q Serve(g_s), s	8.0	82.0	22.2	16.0	90.0	90.0	17.0	3.0	23.7	1.3	4.5	17.0
Cycle Q Clear(g_c), s	8.0	82.0	22.2	16.0	90.0	90.0	17.0	3.0	23.7	1.3	4.5	17.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	94	2769	860	188	2026	1108	389	375	318	212	210	178
V/C Ratio(X)	1.04	1.20	0.45	1.19	1.06	1.07	1.17	0.12	0.82	0.08	0.29	1.67
Avail Cap(c_a), veh/h	94	2769	860	188	2026	1108	389	375	318	251	210	178
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.0	34.0	20.4	67.0	30.0	30.0	66.5	49.0	57.2	56.3	61.0	66.5
Incr Delay (d2), s/veh	103.9	92.6	0.4	125.5	39.6	47.5	100.1	0.1	15.4	0.2	0.8	323.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	55.0	8.0	13.7	44.3	50.9	12.9	1.4	10.6	0.6	2.2	22.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	174.9	126.6	20.8	192.5	69.6	77.5	166.6	49.1	72.6	56.5	61.7	389.9
LnGrp LOS	F	F	C	F	F	F	F	D	E	E	E	F
Approach Vol, veh/h		3801			3565			760			376	
Approach Delay, s/veh		117.1			80.0			127.3			320.7	
Approach LOS		F			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	35.3	20.0	87.0	21.0	22.0	12.0	95.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	30.0	27.0	16.0	82.0	17.0	17.0	8.0	90.0				
Max Q Clear Time (g_c+13), s	13.3	25.7	18.0	84.0	19.0	19.0	10.0	92.0				
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			111.4									
HCM 6th LOS			F									

Intersection									
Intersection Delay, s/veh 7.5									
Intersection LOS A									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	426		126		878		580		
Demand Flow Rate, veh/h	439		130		904		597		
Vehicles Circulating, veh/h	646		853		75		406		
Vehicles Exiting, veh/h	357		126		1010		577		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	10.8		7.3		6.1		7.1		
Approach LOS	B		A		A		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	L	TR	L	TR	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.084	0.916	0.700	0.300	0.470	0.530	0.471	0.529	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	37	402	91	39	425	479	281	316	
Cap Entry Lane, veh/h	745	820	616	688	1260	1332	929	1006	
Entry HV Adj Factor	0.973	0.970	0.967	0.980	0.971	0.971	0.970	0.973	
Flow Entry, veh/h	36	390	88	38	412	465	273	307	
Cap Entry, veh/h	725	795	596	674	1223	1294	901	978	
V/C Ratio	0.050	0.490	0.148	0.057	0.337	0.360	0.302	0.314	
Control Delay, s/veh	5.5	11.3	7.8	5.9	6.1	6.1	7.2	6.9	
LOS	A	B	A	A	A	A	A	A	
95th %tile Queue, veh	0	3	1	0	2	2	1	1	



Intersection									
Intersection Delay, s/veh 7.5									
Intersection LOS A									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	426		126		878		580		
Demand Flow Rate, veh/h	439		130		904		597		
Vehicles Circulating, veh/h	646		853		75		406		
Vehicles Exiting, veh/h	357		126		1010		577		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	10.8		7.3		6.1		7.1		
Approach LOS	B		A		A		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	L	TR	L	TR	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.084	0.916	0.700	0.300	0.470	0.530	0.471	0.529	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	37	402	91	39	425	479	281	316	
Cap Entry Lane, veh/h	745	820	616	688	1260	1332	929	1006	
Entry HV Adj Factor	0.973	0.970	0.967	0.980	0.971	0.971	0.970	0.973	
Flow Entry, veh/h	36	390	88	38	412	465	273	307	
Cap Entry, veh/h	725	795	596	674	1223	1294	901	978	
V/C Ratio	0.050	0.490	0.148	0.057	0.337	0.360	0.302	0.314	
Control Delay, s/veh	5.5	11.3	7.8	5.9	6.1	6.1	7.2	6.9	
LOS	A	B	A	A	A	A	A	A	
95th %tile Queue, veh	0	3	1	0	2	2	1	1	

Intersection									
Intersection Delay, s/veh 19.1									
Intersection LOS F									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1645		1360		1050		1036		
Demand Flow Rate, veh/h	1694		1401		1081		1067		
Vehicles Circulating, veh/h	784		1000		1220		1663		
Vehicles Exiting, veh/h	1946		1301		1258		738		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	578.7		139.9		117.6		346.5		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	L	TR	LT	TR	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.022	0.978	0.470	0.530	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	37	1657	658	743	508	573	501	566	
Cap Entry Lane, veh/h	656	729	538	607	439	503	292	345	
Entry HV Adj Factor	0.973	0.971	0.972	0.970	0.971	0.971	0.972	0.970	
Flow Entry, veh/h	36	1609	639	721	494	557	487	549	
Cap Entry, veh/h	639	708	523	589	427	489	284	335	
V/C Ratio	0.056	2.272	1.223	1.224	1.156	1.138	1.714	1.639	
Control Delay, s/veh	6.3	591.5	141.5	138.5	123.5	112.3	366.8	328.5	
LOS	A	F	F	F	F	F	F	F	
95th %tile Queue, veh	0	118	24	27	18	19	31	33	

Intersection									
Intersection Delay, s/veh									
Intersection LOS									
F									
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	2		2		2		2		
Adj Approach Flow, veh/h	1645		1360		1050		1036		
Demand Flow Rate, veh/h	1694		1401		1081		1067		
Vehicles Circulating, veh/h	784		1000		1220		1663		
Vehicles Exiting, veh/h	1946		1301		1258		738		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	578.7		139.9		117.6		346.5		
Approach LOS	F		F		F		F		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	LT	TR	LT	TR	LT	TR	
Assumed Moves	L	TR	LT	TR	LT	TR	LT	TR	
RT Channelized									
Lane Util	0.022	0.978	0.470	0.530	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	37	1657	658	743	508	573	501	566	
Cap Entry Lane, veh/h	656	729	538	607	439	503	292	345	
Entry HV Adj Factor	0.973	0.971	0.972	0.970	0.971	0.971	0.972	0.970	
Flow Entry, veh/h	36	1609	639	721	494	557	487	549	
Cap Entry, veh/h	639	708	523	589	427	489	284	335	
V/C Ratio	0.056	2.272	1.223	1.224	1.156	1.138	1.714	1.639	
Control Delay, s/veh	6.3	591.5	141.5	138.5	123.5	112.3	366.8	328.5	
LOS	A	F	F	F	F	F	F	F	
95th %tile Queue, veh	0	118	24	27	18	19	31	33	

Intersection												
Intersection Delay, s/veh 57.7												
Intersection LOS F												
Approach	EB			WB			NB			SB		
Entry Lanes	2			2			2			2		
Conflicting Circle Lanes	2			2			2			2		
Adj Approach Flow, veh/h	1527			395			950			521		
Demand Flow Rate, veh/h	1573			407			979			537		
Vehicles Circulating, veh/h	517			858			1431			770		
Vehicles Exiting, veh/h	672			1552			494			495		
Ped Vol Crossing Leg, #/h	0			0			0			0		
Ped Cap Adj	1.000			1.000			1.000			1.000		
Approach Delay, s/veh	21.2			9.9			163.4			8.4		
Approach LOS	C			A			F			A		
Lane	Left		RightBypass		Left		Right		Left		RightBypass	
Designated Moves	LT TR		R		LT TR		LT TR		LT TR		R	
Assumed Moves	LT TR				LT TR		LT TR		LT TR			
RT Channelized			Yield								Yield	
Lane Util	0.470	0.530		0.469	0.531		0.470	0.530		0.470	0.530	
Follow-Up Headway, s	2.667	2.535		2.667	2.535		2.667	2.535		2.667	2.535	
Critical Headway, s	4.645	4.328		4.645	4.328		4.645	4.328		4.645	4.328	
Entry Flow, veh/h	662	746	165	191	216		460	519		197	222	118
Cap Entry Lane, veh/h	839	915	933	613	685		362	421		665	738	802
Entry HV Adj Factor	0.971	0.971	0.971	0.972	0.970		0.971	0.970		0.970	0.970	0.971
Flow Entry, veh/h	643	725	160	186	209		446	503		191	215	115
Cap Entry, veh/h	814	889	906	596	664		351	408		645	716	779
V/C Ratio	0.789	0.815	0.177	0.312	0.315		1.271	1.234		0.296	0.301	0.148
Control Delay, s/veh	22.7	23.3	5.7	10.3	9.5		174.1	153.9		9.4	8.7	6.2
LOS	C	C	A	B	A		F	F		A	A	A
95th %tile Queue, veh	8	9	1	1	1		20	21		1	1	1

Intersection												
Intersection Delay, s/veh91.2												
Intersection LOS F												
Approach	EB			WB			NB			SB		
Entry Lanes	2			2			2			2		
Conflicting Circle Lanes	2			2			2			2		
Adj Approach Flow, veh/h	1645			1360			1050			1036		
Demand Flow Rate, veh/h	1694			1401			1081			1067		
Vehicles Circulating, veh/h	784			1000			1220			1663		
Vehicles Exiting, veh/h	1498			1301			780			738		
Ped Vol Crossing Leg, #/h	0			0			0			0		
Ped Cap Adj	1.000			1.000			1.000			1.000		
Approach Delay, s/veh	30.6			139.9			117.6			96.7		
Approach LOS	D			F			F			F		
Lane	Left		RightBypass		Left		Right		Left		RightBypass	
Designated Moves	LT TR		R		LT TR		LT TR		LT TR		R	
Assumed Moves	LT TR				LT TR		LT TR		LT TR			
RT Channelized			Yield								Yield	
Lane Util	0.470	0.530		0.470	0.530		0.470	0.530	0.470	0.530		
Follow-Up Headway, s	2.667	2.535		2.667	2.535		2.667	2.535	2.667	2.535		
Critical Headway, s	4.645	4.328		4.645	4.328		4.645	4.328	4.645	4.328		
Entry Flow, veh/h	572	644	478	658	743		508	573	291	328	448	
Cap Entry Lane, veh/h	656	729	732	538	607		439	503	292	345	398	
Entry HV Adj Factor	0.970	0.972	0.971	0.972	0.970		0.971	0.971	0.971	0.971	0.971	
Flow Entry, veh/h	555	626	464	639	721		494	557	283	319	435	
Cap Entry, veh/h	637	709	711	523	589		427	489	284	335	386	
V/C Ratio	0.872	0.883	0.653	1.223	1.224		1.156	1.138	0.995	0.950	1.127	
Control Delay, s/veh	36.4	35.3	17.3	141.5	138.5		123.5	112.3	92.0	72.8	117.4	
LOS	E	E	C	F	F		F	F	F	F	F	
95th %tile Queue, veh	10	11	5	24	27		18	19	10	10	16	

HCM 6th Signalized Intersection Summary  
 219: Town Center Blvd/Tegler Dr & Bergen Blvd

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔↔		↔	↔↔	
Traffic Volume (veh/h)	28	155	62	197	143	59	88	161	142	84	184	47
Future Volume (veh/h)	28	155	62	197	143	59	88	161	142	84	184	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	30	168	67	214	155	64	96	175	154	91	200	51
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	156	665	248	419	344	145	602	508	420	558	767	191
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.11	0.28	0.28	0.11	0.27	0.27
Sat Flow, veh/h	190	2249	839	875	1166	491	1767	1833	1513	1767	2797	696
Grp Volume(v), veh/h	142	0	123	225	0	208	96	168	161	91	124	127
Grp Sat Flow(s),veh/h/ln	1740	0	1538	932	0	1600	1767	1763	1583	1767	1763	1730
Q Serve(g_s), s	0.0	0.0	2.7	7.9	0.0	4.6	1.5	3.3	3.6	1.5	2.4	2.5
Cycle Q Clear(g_c), s	2.6	0.0	2.7	10.5	0.0	4.6	1.5	3.3	3.6	1.5	2.4	2.5
Prop In Lane	0.21		0.55	0.95		0.31	1.00		0.96	1.00		0.40
Lane Grp Cap(c), veh/h	614	0	454	436	0	473	602	489	439	558	483	475
V/C Ratio(X)	0.23	0.00	0.27	0.51	0.00	0.44	0.16	0.34	0.37	0.16	0.26	0.27
Avail Cap(c_a), veh/h	654	0	492	465	0	512	690	605	543	651	605	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	11.8	15.7	0.0	12.5	8.8	12.6	12.7	9.0	12.4	12.4
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.9	0.0	0.6	0.1	0.4	0.5	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.7	1.7	0.0	1.3	0.4	1.0	1.0	0.4	0.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	0.0	12.1	16.7	0.0	13.1	9.0	13.0	13.2	9.1	12.7	12.7
LnGrp LOS	B	A	B	B	A	B	A	B	B	A	B	B
Approach Vol, veh/h		265		433		425		342				
Approach Delay, s/veh		12.0		15.0		12.2		11.7				
Approach LOS		B		B		B		B				
Timer - Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	7.7	17.1		17.9	8.8	17.0		17.9				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0			14.0	7.0	15.0		14.0				
Max Q Clear Time (g_c+1), s	5.6			4.7	3.5	4.5		12.5				
Green Ext Time (p_c), s	0.1	1.2		0.9	0.1	0.9		0.4				

Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

# HCM 6th Signalized Intersection Summary

## 219: Town Center Blvd/Tegler Dr & Bergen Blvd

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	28	155	62	197	143	59	88	161	142	84	184	47
Future Volume (veh/h)	28	155	62	197	143	59	88	161	142	84	184	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	30	168	67	214	155	64	96	175	154	91	200	51
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	156	665	248	419	344	145	602	508	420	558	767	191
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.11	0.28	0.28	0.11	0.27	0.27
Sat Flow, veh/h	190	2249	839	875	1166	491	1767	1833	1513	1767	2797	696
Grp Volume(v), veh/h	142	0	123	225	0	208	96	168	161	91	124	127
Grp Sat Flow(s),veh/h/ln	1740	0	1538	932	0	1600	1767	1763	1583	1767	1763	1730
Q Serve(g_s), s	0.0	0.0	2.7	7.9	0.0	4.6	1.5	3.3	3.6	1.5	2.4	2.5
Cycle Q Clear(g_c), s	2.6	0.0	2.7	10.5	0.0	4.6	1.5	3.3	3.6	1.5	2.4	2.5
Prop In Lane	0.21		0.55	0.95		0.31	1.00		0.96	1.00		0.40
Lane Grp Cap(c), veh/h	614	0	454	436	0	473	602	489	439	558	483	475
V/C Ratio(X)	0.23	0.00	0.27	0.51	0.00	0.44	0.16	0.34	0.37	0.16	0.26	0.27
Avail Cap(c_a), veh/h	654	0	492	465	0	512	690	605	543	651	605	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	11.8	15.7	0.0	12.5	8.8	12.6	12.7	9.0	12.4	12.4
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.9	0.0	0.6	0.1	0.4	0.5	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.7	1.7	0.0	1.3	0.4	1.0	1.0	0.4	0.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	0.0	12.1	16.7	0.0	13.1	9.0	13.0	13.2	9.1	12.7	12.7
LnGrp LOS	B	A	B	B	A	B	A	B	B	A	B	B
Approach Vol, veh/h		265			433			425			342	
Approach Delay, s/veh		12.0			15.0			12.2			11.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	17.1		17.9	8.8	17.0		17.9				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0			14.0	7.0	15.0		14.0				
Max Q Clear Time (g_c+1), s	5.6			4.7	3.5	4.5		12.5				
Green Ext Time (p_c), s	0.1	1.2		0.9	0.1	0.9		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
 219: Town Center Blvd/Tegler Dr & Bergen Blvd

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔↔		↔	↔↔	
Traffic Volume (veh/h)	28	413	62	888	869	59	88	413	991	98	547	47
Future Volume (veh/h)	28	413	62	888	869	59	88	413	991	98	547	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	30	449	67	965	945	64	96	449	1077	107	595	51
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	95	975	150	0	1252	85	175	460	411	318	874	75
Arrive On Green	0.37	0.37	0.37	0.00	0.37	0.37	0.10	0.26	0.26	0.10	0.27	0.27
Sat Flow, veh/h	55	2610	403	0	3351	227	1767	1763	1572	1767	3286	281
Grp Volume(v), veh/h	277	0	269	0	497	512	96	449	1077	107	319	327
Grp Sat Flow(s),veh/h/ln	1451	0	1616	0	1763	1815	1767	1763	1572	1767	1763	1805
Q Serve(g_s), s	0.7	0.0	6.7	0.0	13.2	13.2	2.8	13.5	14.0	2.2	8.7	8.7
Cycle Q Clear(g_c), s	13.9	0.0	6.7	0.0	13.2	13.2	2.8	13.5	14.0	2.2	8.7	8.7
Prop In Lane	0.11		0.25	0.00		0.13	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	617	0	604	0	659	678	175	460	411	318	469	480
V/C Ratio(X)	0.45	0.00	0.45	0.00	0.75	0.75	0.55	0.98	2.62	0.34	0.68	0.68
Avail Cap(c_a), veh/h	617	0	604	0	921	948	297	460	411	431	469	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	0.0	12.6	0.0	14.6	14.6	23.0	19.6	19.8	13.3	17.6	17.6
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.0	2.3	2.2	2.6	35.5	737.3	0.6	4.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.9	0.0	4.4	4.5	1.1	9.0	88.2	0.7	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	0.0	13.1	0.0	16.9	16.9	25.6	55.1	757.1	13.9	21.6	21.6
LnGrp LOS	B	A	B	A	B	B	C	E	F	B	C	C
Approach Vol, veh/h		546			1009			1622			753	
Approach Delay, s/veh		13.1			16.9			519.5			20.5	
Approach LOS		B			B			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	9.6	19.0	0.0	25.0	9.3	19.3		25.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	14.0	9.0	15.0	9.0	14.0			28.0				
Max Q Clear Time (g_c+1), s	16.0	0.0	15.9	4.8	10.7			15.2				
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.1	1.1		4.8				

Intersection Summary

HCM 6th Ctrl Delay	224.5
HCM 6th LOS	F



HCM 6th Signalized Intersection Summary  
 219: Town Center Blvd/Tegler Dr & Bergen Blvd

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕↕		↕	↕↕	
Traffic Volume (veh/h)	28	413	62	888	869	59	88	413	991	98	547	47
Future Volume (veh/h)	28	413	62	888	869	59	88	413	991	98	547	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	30	449	67	965	945	64	96	449	1077	107	595	51
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	95	975	150	0	1252	85	175	460	411	318	874	75
Arrive On Green	0.37	0.37	0.37	0.00	0.37	0.37	0.10	0.26	0.26	0.10	0.27	0.27
Sat Flow, veh/h	55	2610	403	0	3351	227	1767	1763	1572	1767	3286	281
Grp Volume(v), veh/h	277	0	269	0	497	512	96	449	1077	107	319	327
Grp Sat Flow(s),veh/h/ln	1451	0	1616	0	1763	1815	1767	1763	1572	1767	1763	1805
Q Serve(g_s), s	0.7	0.0	6.7	0.0	13.2	13.2	2.8	13.5	14.0	2.2	8.7	8.7
Cycle Q Clear(g_c), s	13.9	0.0	6.7	0.0	13.2	13.2	2.8	13.5	14.0	2.2	8.7	8.7
Prop In Lane	0.11		0.25	0.00		0.13	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	617	0	604	0	659	678	175	460	411	318	469	480
V/C Ratio(X)	0.45	0.00	0.45	0.00	0.75	0.75	0.55	0.98	2.62	0.34	0.68	0.68
Avail Cap(c_a), veh/h	617	0	604	0	921	948	297	460	411	431	469	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	0.0	12.6	0.0	14.6	14.6	23.0	19.6	19.8	13.3	17.6	17.6
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.0	2.3	2.2	2.6	35.5	737.3	0.6	4.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.9	0.0	4.4	4.5	1.1	9.0	88.2	0.7	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	0.0	13.1	0.0	16.9	16.9	25.6	55.1	757.1	13.9	21.6	21.6
LnGrp LOS	B	A	B	A	B	B	C	E	F	B	C	C
Approach Vol, veh/h		546			1009			1622			753	
Approach Delay, s/veh		13.1			16.9			519.5			20.5	
Approach LOS		B			B			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	9.6	19.0	0.0	25.0	9.3	19.3		25.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	14.0	14.0	9.0	15.0	9.0	14.0		28.0				
Max Q Clear Time (g_c+14), s	16.0	16.0	0.0	15.9	4.8	10.7		15.2				
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.1	1.1		4.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											224.5	
HCM 6th LOS											F	

HCM 6th Signalized Intersection Summary  
 219: Town Center Blvd/Tegler Dr & Bergen Blvd

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔↔	↔↔		↔	↕↕	↔↔	↔	↕↕	
Traffic Volume (veh/h)	18	729	412	254	337	75	309	179	359	49	533	33
Future Volume (veh/h)	18	729	412	254	337	75	309	179	359	49	533	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	20	792	448	276	366	82	336	195	390	53	579	36
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	50	751	416	305	1402	311	334	1052	1072	318	562	35
Arrive On Green	0.36	0.36	0.36	0.09	0.49	0.49	0.19	0.30	0.30	0.06	0.17	0.17
Sat Flow, veh/h	25	2113	1171	3428	2868	636	1767	3526	2768	1767	3371	209
Grp Volume(v), veh/h	695	0	565	276	223	225	336	195	390	53	302	313
Grp Sat Flow(s),veh/h/ln	1831	0	1478	1714	1763	1741	1767	1763	1384	1767	1763	1818
Q Serve(g_s), s	15.3	0.0	32.0	7.2	6.7	6.8	17.0	3.7	9.0	2.2	15.0	15.0
Cycle Q Clear(g_c), s	32.0	0.0	32.0	7.2	6.7	6.8	17.0	3.7	9.0	2.2	15.0	15.0
Prop In Lane	0.03		0.79	1.00		0.37	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	692	0	525	305	862	851	334	1052	1072	318	294	303
V/C Ratio(X)	1.00	0.00	1.08	0.91	0.26	0.26	1.01	0.19	0.36	0.17	1.03	1.03
Avail Cap(c_a), veh/h	692	0	525	305	862	851	334	1052	1072	355	294	303
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	29.0	40.6	13.5	13.5	36.5	23.4	19.7	28.0	37.5	37.5
Incr Delay (d2), s/veh	35.1	0.0	61.2	28.8	0.2	0.2	50.9	0.1	0.2	0.2	60.2	60.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.7	0.0	19.2	4.1	2.4	2.4	11.6	1.5	2.7	0.9	11.0	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	65.0	0.0	90.2	69.4	13.6	13.7	87.4	23.5	19.9	28.2	97.7	97.7
LnGrp LOS	F		F	E	B	B	F	C	B	C	F	F
Approach Vol, veh/h		1260		724			921			668		
Approach Delay, s/veh		76.3		34.9			45.3			92.2		
Approach LOS		E		C			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	9.1	31.9	12.0	37.0	21.0	20.0	49.0					
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	5.0					
Max Green Setting (Gmax), s	30	25.0	8.0	32.0	17.0	15.0	44.0					
Max Q Clear Time (g_c+14), s	14.2	11.0	9.2	34.0	19.0	17.0	8.8					
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	0.0	2.5					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			62.9									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary  
 219: Town Center Blvd/Tegler Dr & Bergen Blvd

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔↔	↔↔		↔	↕↕	↔↔	↔	↕↕	
Traffic Volume (veh/h)	28	413	62	888	869	59	88	413	991	98	547	47
Future Volume (veh/h)	28	413	62	888	869	59	88	413	991	98	547	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	30	449	67	965	945	64	96	449	1077	107	595	51
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	64	525	77	1007	1780	121	127	837	1470	254	786	67
Arrive On Green	0.19	0.19	0.19	0.29	0.53	0.53	0.07	0.24	0.24	0.07	0.24	0.24
Sat Flow, veh/h	100	2733	403	3428	3351	227	1767	3526	2768	1767	3286	281
Grp Volume(v), veh/h	277	0	269	965	497	512	96	449	1077	107	319	327
Grp Sat Flow(s),veh/h/ln	1621	0	1616	1714	1763	1815	1767	1763	1384	1767	1763	1805
Q Serve(g_s), s	8.1	0.0	14.2	24.5	16.3	16.3	4.7	9.9	21.0	3.9	14.9	14.9
Cycle Q Clear(g_c), s	14.5	0.0	14.2	24.5	16.3	16.3	4.7	9.9	21.0	3.9	14.9	14.9
Prop In Lane	0.11		0.25	1.00		0.13	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	357	0	311	1007	936	964	127	837	1470	254	421	431
V/C Ratio(X)	0.78	0.00	0.86	0.96	0.53	0.53	0.76	0.54	0.73	0.42	0.76	0.76
Avail Cap(c_a), veh/h	373	0	329	1007	956	984	140	837	1470	264	421	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	0.0	34.6	30.7	13.5	13.5	40.3	29.5	15.9	23.2	31.3	31.3
Incr Delay (d2), s/veh	9.7	0.0	19.9	19.0	0.5	0.5	19.3	0.7	1.9	1.1	7.7	7.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	7.0	11.9	5.6	5.8	2.6	4.0	7.4	1.6	6.8	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.0	0.0	54.5	49.7	14.1	14.1	59.6	30.2	17.9	24.3	38.9	38.9
LnGrp LOS	D		D	D	B	B	E	C	B	C	D	D
Approach Vol, veh/h		546			1974			1622			753	
Approach Delay, s/veh		49.2			31.5			23.7			36.8	
Approach LOS		D			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	26.0	30.0	22.0	10.3	26.2			52.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	21.0	26.0	18.0	7.0	21.0			48.0				
Max Q Clear Time (g_c+1/3g), s	23.0	26.5	16.5	6.7	16.9			18.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	1.4		6.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											31.7	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
 220: Harrell Pkwy/Bergen Blvd & Campus Pkwy

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↑↑	↑↑↑		↘	↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	109	1242	66	359	1276	423	89	144	346	335	148	119
Future Volume (veh/h)	109	1242	66	359	1276	423	89	144	346	335	148	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	118	1350	72	390	1387	460	97	157	376	364	161	129
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	1302	581	382	1930	635	284	201	170	326	346	260
Arrive On Green	0.08	0.37	0.37	0.22	0.51	0.51	0.06	0.11	0.11	0.14	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3769	1240	1767	1856	1572	1767	1919	1440
Grp Volume(v), veh/h	118	1350	72	390	1242	605	97	157	376	364	147	143
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1689	1632	1767	1856	1572	1767	1763	1596
Q Serve(g_s), s	7.3	41.0	2.6	24.0	31.5	31.9	5.3	9.2	7.9	15.0	8.3	9.0
Cycle Q Clear(g_c), s	7.3	41.0	2.6	24.0	31.5	31.9	5.3	9.2	7.9	15.0	8.3	9.0
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		0.90
Lane Grp Cap(c), veh/h	146	1302	581	382	1729	836	284	201	170	326	318	288
V/C Ratio(X)	0.81	1.04	0.12	1.02	0.72	0.72	0.34	0.78	2.21	1.12	0.46	0.50
Avail Cap(c_a), veh/h	239	1302	581	382	1729	836	284	201	170	326	318	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	35.0	13.8	43.5	20.9	21.0	40.4	48.2	21.3	39.6	40.7	40.9
Incr Delay (d2), s/veh	10.1	35.0	0.1	51.4	1.5	3.1	0.7	18.0	564.0	85.2	1.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	22.7	1.2	15.5	11.6	11.8	2.3	5.1	31.0	9.2	3.6	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	70.0	13.9	94.9	22.4	24.1	41.1	66.2	585.3	124.9	41.7	42.3
LnGrp LOS	E	F	B	F	C	C	D	E	F	F	D	D
Approach Vol, veh/h		1540			2237			630			654	
Approach Delay, s/veh		66.6			35.5			372.2			88.1	
Approach LOS		E			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.0	17.0	29.0	46.0	11.0	25.0	13.2	61.8				
Change Period (Y+Rc), s	4.0	5.0	5.0	* 5	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	12.0	24.0	* 41	7.0	20.0	15.0	50.0				
Max Q Clear Time (g_c+M), s	11.0	11.2	26.0	43.0	7.3	11.0	9.3	33.9				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.0	0.0	1.0	0.1	10.7				

Intersection Summary

HCM 6th Ctrl Delay	93.7
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 220: Harrell Pkwy/Bergen Blvd & Campus Pkwy

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖↑↑	↑↑↑		↖	↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	109	1242	66	359	1276	423	89	144	346	335	148	119
Future Volume (veh/h)	109	1242	66	359	1276	423	89	144	346	335	148	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	118	1350	72	390	1387	460	97	157	376	364	161	129
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	1302	581	382	1930	635	284	201	170	326	346	260
Arrive On Green	0.08	0.37	0.37	0.22	0.51	0.51	0.06	0.11	0.11	0.14	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3769	1240	1767	1856	1572	1767	1919	1440
Grp Volume(v), veh/h	118	1350	72	390	1242	605	97	157	376	364	147	143
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1689	1632	1767	1856	1572	1767	1763	1596
Q Serve(g_s), s	7.3	41.0	2.6	24.0	31.5	31.9	5.3	9.2	7.9	15.0	8.3	9.0
Cycle Q Clear(g_c), s	7.3	41.0	2.6	24.0	31.5	31.9	5.3	9.2	7.9	15.0	8.3	9.0
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		0.90
Lane Grp Cap(c), veh/h	146	1302	581	382	1729	836	284	201	170	326	318	288
V/C Ratio(X)	0.81	1.04	0.12	1.02	0.72	0.72	0.34	0.78	2.21	1.12	0.46	0.50
Avail Cap(c_a), veh/h	239	1302	581	382	1729	836	284	201	170	326	318	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	35.0	13.8	43.5	20.9	21.0	40.4	48.2	21.3	39.6	40.7	40.9
Incr Delay (d2), s/veh	10.1	35.0	0.1	51.4	1.5	3.1	0.7	18.0	564.0	85.2	1.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	22.7	1.2	15.5	11.6	11.8	2.3	5.1	31.0	9.2	3.6	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	70.0	13.9	94.9	22.4	24.1	41.1	66.2	585.3	124.9	41.7	42.3
LnGrp LOS	E	F	B	F	C	C	D	E	F	F	D	D
Approach Vol, veh/h	1540			2237				630			654	
Approach Delay, s/veh	66.6			35.5				372.2			88.1	
Approach LOS	E			D				F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.0	17.0	29.0	46.0	11.0	25.0	13.2	61.8				
Change Period (Y+Rc), s	4.0	5.0	5.0	* 5	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	12.0	24.0	* 41	7.0	20.0	15.0	50.0				
Max Q Clear Time (g_c+M), s	11.0	11.2	26.0	43.0	7.3	11.0	9.3	33.9				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.0	0.0	1.0	0.1	10.7				

Intersection Summary

HCM 6th Ctrl Delay	93.7
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
220: Harrell Pkwy/Bergen Blvd & Campus Pkwy

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖↑↑	↑↑↑		↖	↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	629	2546	66	405	2344	836	89	313	401	789	257	610
Future Volume (veh/h)	629	2546	66	405	2344	836	89	313	401	789	257	610
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	684	2767	72	440	2548	909	97	340	436	858	279	663
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	328	1378	614	222	1284	410	141	246	208	398	537	479
Arrive On Green	0.19	0.39	0.39	0.13	0.34	0.34	0.05	0.13	0.13	0.23	0.30	0.30
Sat Flow, veh/h	1767	3526	1572	1767	3800	1214	1767	1856	1572	1767	1763	1572
Grp Volume(v), veh/h	684	2767	72	440	2231	1226	97	340	436	858	279	663
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1689	1637	1767	1856	1572	1767	1763	1572
Q Serve(g_s), s	28.0	59.0	3.6	19.0	51.0	51.0	7.1	20.0	15.6	34.0	19.7	46.0
Cycle Q Clear(g_c), s	28.0	59.0	3.6	19.0	51.0	51.0	7.1	20.0	15.6	34.0	19.7	46.0
Prop In Lane	1.00		1.00	1.00		0.74	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	1378	614	222	1141	553	141	246	208	398	537	479
V/C Ratio(X)	2.09	2.01	0.12	1.98	1.96	2.22	0.69	1.38	2.09	2.16	0.52	1.38
Avail Cap(c_a), veh/h	328	1378	614	222	1141	553	141	246	208	398	537	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.5	46.0	19.5	66.0	50.0	50.0	54.3	65.5	39.7	58.5	43.4	52.5
Incr Delay (d2), s/veh	499.6	456.5	0.1	456.2	433.4	553.6	13.0	195.8	508.0	528.6	0.9	185.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh	17.8	112.2	1.7	36.6	89.5	105.2	3.6	22.7	35.3	73.3	8.6	42.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	561.1	502.5	19.6	522.2	483.4	603.6	67.3	261.3	547.7	587.1	44.3	237.9
LnGrp LOS	F	F	B	F	F	F	E	F	F	F	D	F
Approach Vol, veh/h		3523			3897			873			1800	
Approach Delay, s/veh		504.0			525.6			382.8			374.4	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	38.0	25.0	24.0	64.0	12.0	51.0	32.0	56.0				
Change Period (Y+Rc), s	4.0	5.0	5.0	* 5	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	34.0	20.0	19.0	* 59	8.0	46.0	28.0	50.0				
Max Q Clear Time (g_c+Rc), s	30.0	22.0	21.0	61.0	9.1	48.0	30.0	53.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	478.7
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
220: Harrell Pkwy/Bergen Blvd & Campus Pkwy

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖↑↑	↑↑↑		↖	↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	629	2546	66	405	2344	836	89	313	401	789	257	610
Future Volume (veh/h)	629	2546	66	405	2344	836	89	313	401	789	257	610
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	684	2767	72	440	2548	909	97	340	436	858	279	663
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	328	1378	614	222	1284	410	141	246	208	398	537	479
Arrive On Green	0.19	0.39	0.39	0.13	0.34	0.34	0.05	0.13	0.13	0.23	0.30	0.30
Sat Flow, veh/h	1767	3526	1572	1767	3800	1214	1767	1856	1572	1767	1763	1572
Grp Volume(v), veh/h	684	2767	72	440	2231	1226	97	340	436	858	279	663
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1689	1637	1767	1856	1572	1767	1763	1572
Q Serve(g_s), s	28.0	59.0	3.6	19.0	51.0	51.0	7.1	20.0	15.6	34.0	19.7	46.0
Cycle Q Clear(g_c), s	28.0	59.0	3.6	19.0	51.0	51.0	7.1	20.0	15.6	34.0	19.7	46.0
Prop In Lane	1.00		1.00	1.00		0.74	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	1378	614	222	1141	553	141	246	208	398	537	479
V/C Ratio(X)	2.09	2.01	0.12	1.98	1.96	2.22	0.69	1.38	2.09	2.16	0.52	1.38
Avail Cap(c_a), veh/h	328	1378	614	222	1141	553	141	246	208	398	537	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.5	46.0	19.5	66.0	50.0	50.0	54.3	65.5	39.7	58.5	43.4	52.5
Incr Delay (d2), s/veh	499.6	456.5	0.1	456.2	433.4	553.6	13.0	195.8	508.0	528.6	0.9	185.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh	17.8	112.2	1.7	36.6	89.5	105.2	3.6	22.7	35.3	73.3	8.6	42.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	561.1	502.5	19.6	522.2	483.4	603.6	67.3	261.3	547.7	587.1	44.3	237.9
LnGrp LOS	F	F	B	F	F	F	E	F	F	F	F	D
Approach Vol, veh/h	3523			3897			873			1800		
Approach Delay, s/veh	504.0			525.6			382.8			374.4		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	38.0	25.0	24.0	64.0	12.0	51.0	32.0	56.0				
Change Period (Y+Rc), s	4.0	5.0	5.0	* 5	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	34.0	20.0	19.0	* 59	8.0	46.0	28.0	50.0				
Max Q Clear Time (g_c+Rc), s	34.0	22.0	21.0	61.0	9.1	48.0	30.0	53.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	478.7
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 220: Harrell Pkwy/Bergen Blvd & Campus Pkwy

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙↘	↑↑↑	↗	↙↘	↑↑↑	↗	↙	↑	↗↘	↙↘	↑↑	↗
Traffic Volume (veh/h)	256	1093	33	438	879	392	32	1119	888	293	852	216
Future Volume (veh/h)	256	1093	33	438	879	392	32	1119	888	293	852	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	278	1188	36	476	955	426	35	1216	965	318	926	235
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	295	906	337	363	1040	437	300	958	1723	250	1952	871
Arrive On Green	0.09	0.18	0.18	0.11	0.21	0.21	0.04	0.52	0.52	0.07	0.55	0.55
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	1767	1856	2768	3428	3526	1572
Grp Volume(v), veh/h	278	1188	36	476	955	426	35	1216	965	318	926	235
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1767	1856	1384	1714	1763	1572
Q Serve(g_s), s	12.2	27.0	2.1	16.0	27.9	31.0	1.4	78.0	9.2	11.0	24.0	11.8
Cycle Q Clear(g_c), s	12.2	27.0	2.1	16.0	27.9	31.0	1.4	78.0	9.2	11.0	24.0	11.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	906	337	363	1040	437	300	958	1723	250	1952	871
V/C Ratio(X)	0.94	1.31	0.11	1.31	0.92	0.97	0.12	1.27	0.56	1.27	0.47	0.27
Avail Cap(c_a), veh/h	295	906	337	363	1040	437	319	958	1723	250	1952	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.6	62.0	28.1	67.5	58.8	54.0	16.7	36.5	6.7	70.0	20.4	17.7
Incr Delay (d2), s/veh	37.1	148.1	0.1	158.1	12.6	36.1	0.2	129.2	0.4	150.4	0.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	23.8	0.9	14.9	12.9	20.0	0.6	67.5	4.0	10.0	9.6	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	105.7	210.1	28.2	225.6	71.4	90.1	16.8	165.7	7.1	220.4	20.6	17.8
LnGrp LOS	F	F	C	F	E	F	B	F	A	F	C	B
Approach Vol, veh/h		1502		1857		2216		1479				
Approach Delay, s/veh		186.5		115.2		94.3		63.1				
Approach LOS		F		F		F		E				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	83.0	21.0	32.0	9.4	88.6	17.0	36.0				
Change Period (Y+Rc), s	4.0	5.0	5.0	* 5	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	1.0	78.0	16.0	* 27	7.0	82.0	13.0	30.0				
Max Q Clear Time (g_c+1/3), s	1.0	80.0	18.0	29.0	3.4	26.0	14.2	33.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	112.9
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



HCM 6th Signalized Intersection Summary  
 220: Harrell Pkwy/Bergen Blvd & Campus Pkwy

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖	↑	↖↗	↖↗	↑↑	↖
Traffic Volume (veh/h)	629	2546	66	405	2344	836	89	313	401	789	257	610
Future Volume (veh/h)	629	2546	66	405	2344	836	89	313	401	789	257	610
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	684	2767	72	440	2548	909	97	340	436	858	279	663
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	499	2147	739	318	1912	896	227	307	715	658	1097	489
Arrive On Green	0.15	0.42	0.42	0.09	0.38	0.38	0.05	0.17	0.17	0.19	0.31	0.31
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	1767	1856	2768	3428	3526	1572
Grp Volume(v), veh/h	684	2767	72	440	2548	909	97	340	436	858	279	663
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1767	1856	1384	1714	1763	1572
Q Serve(g_s), s	22.0	64.0	2.5	14.0	57.0	57.0	6.9	25.0	6.2	29.0	8.9	47.0
Cycle Q Clear(g_c), s	22.0	64.0	2.5	14.0	57.0	57.0	6.9	25.0	6.2	29.0	8.9	47.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	499	2147	739	318	1912	896	227	307	715	658	1097	489
V/C Ratio(X)	1.37	1.29	0.10	1.38	1.33	1.01	0.43	1.11	0.61	1.30	0.25	1.35
Avail Cap(c_a), veh/h	499	2147	739	318	1912	896	227	307	715	658	1097	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.5	43.5	10.6	68.5	47.0	32.5	49.6	63.0	23.0	61.0	38.9	52.0
Incr Delay (d2), s/veh	178.7	133.6	0.1	191.4	153.3	33.9	1.3	83.1	1.5	147.3	0.1	172.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	52.1	1.0	14.5	50.2	38.6	3.1	18.7	4.2	25.8	3.9	41.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	243.2	177.1	10.7	259.9	200.3	66.4	50.9	146.1	24.5	208.3	39.0	224.6
LnGrp LOS	F	F	B	F	F	F	D	F	C	F	D	F
Approach Vol, veh/h		3523			3897			873			1800	
Approach Delay, s/veh		186.5			175.8			74.8			188.0	
Approach LOS		F			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.0	30.0	19.0	69.0	11.0	52.0	26.0	62.0				
Change Period (Y+Rc), s	4.0	5.0	5.0	* 5	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	29.0	25.0	14.0	* 64	7.0	47.0	22.0	56.0				
Max Q Clear Time (g_c+D1), s	31.0	27.0	16.0	66.0	8.9	49.0	24.0	59.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	173.0
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 221: Town Center Blvd & Campus Pkwy

Existing AM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	74	1193	195	142	1269	44	96	29	141	34	32	72
Future Volume (veh/h)	74	1193	195	142	1269	44	96	29	141	34	32	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	80	1297	212	154	1379	48	104	32	153	37	35	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	1400	229	193	1571	55	447	430	364	436	98	218
Arrive On Green	0.10	0.32	0.32	0.11	0.31	0.31	0.09	0.23	0.23	0.05	0.19	0.19
Sat Flow, veh/h	1767	4387	717	1767	5026	175	1767	1856	1572	1767	511	1139
Grp Volume(v), veh/h	80	998	511	154	927	500	104	32	153	37	0	113
Grp Sat Flow(s),veh/h/ln	1767	1689	1726	1767	1689	1824	1767	1856	1572	1767	0	1650
Q Serve(g_s), s	2.7	17.9	17.9	5.3	16.3	16.3	2.8	0.8	5.2	1.0	0.0	3.7
Cycle Q Clear(g_c), s	2.7	17.9	17.9	5.3	16.3	16.3	2.8	0.8	5.2	1.0	0.0	3.7
Prop In Lane	1.00		0.42	1.00		0.10	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	176	1078	551	193	1055	570	447	430	364	436	0	315
V/C Ratio(X)	0.45	0.93	0.93	0.80	0.88	0.88	0.23	0.07	0.42	0.08	0.00	0.36
Avail Cap(c_a), veh/h	198	1079	551	198	1079	583	480	430	364	540	0	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	20.6	20.6	27.2	20.4	20.4	16.8	18.8	20.5	18.3	0.0	22.0
Incr Delay (d2), s/veh	1.8	13.3	21.9	20.0	8.3	14.1	0.3	0.1	0.8	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.9	9.4	3.1	6.6	8.0	1.1	0.4	1.7	0.4	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	33.9	42.5	47.2	28.7	34.5	17.1	18.9	21.3	18.4	0.0	22.7
LnGrp LOS	C	C	D	D	C	C	B	B	C	B	A	C
Approach Vol, veh/h	1589				1581		289				150	
Approach Delay, s/veh	36.4				32.3		19.5				21.6	
Approach LOS	D				C		B				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	19.5	10.8	25.0	9.9	17.0	11.2	24.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	13.0	7.0	20.0	7.0	13.0	7.0	* 20					
Max Q Clear Time (g_c+1), s	7.2	7.3	19.9	4.8	5.7	4.7	18.3					
Green Ext Time (p_c), s	0.0	0.3	0.0	0.1	0.0	0.3	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 221: Town Center Blvd & Campus Pkwy

Existing PM Peak  
 12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	74	1193	195	142	1269	44	96	29	141	34	32	72
Future Volume (veh/h)	74	1193	195	142	1269	44	96	29	141	34	32	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	80	1297	212	154	1379	48	104	32	153	37	35	78
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	1400	229	193	1571	55	447	430	364	436	98	218
Arrive On Green	0.10	0.32	0.32	0.11	0.31	0.31	0.09	0.23	0.23	0.05	0.19	0.19
Sat Flow, veh/h	1767	4387	717	1767	5026	175	1767	1856	1572	1767	511	1139
Grp Volume(v), veh/h	80	998	511	154	927	500	104	32	153	37	0	113
Grp Sat Flow(s),veh/h/ln	1767	1689	1726	1767	1689	1824	1767	1856	1572	1767	0	1650
Q Serve(g_s), s	2.7	17.9	17.9	5.3	16.3	16.3	2.8	0.8	5.2	1.0	0.0	3.7
Cycle Q Clear(g_c), s	2.7	17.9	17.9	5.3	16.3	16.3	2.8	0.8	5.2	1.0	0.0	3.7
Prop In Lane	1.00		0.42	1.00		0.10	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	176	1078	551	193	1055	570	447	430	364	436	0	315
V/C Ratio(X)	0.45	0.93	0.93	0.80	0.88	0.88	0.23	0.07	0.42	0.08	0.00	0.36
Avail Cap(c_a), veh/h	198	1079	551	198	1079	583	480	430	364	540	0	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	20.6	20.6	27.2	20.4	20.4	16.8	18.8	20.5	18.3	0.0	22.0
Incr Delay (d2), s/veh	1.8	13.3	21.9	20.0	8.3	14.1	0.3	0.1	0.8	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.9	9.4	3.1	6.6	8.0	1.1	0.4	1.7	0.4	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	33.9	42.5	47.2	28.7	34.5	17.1	18.9	21.3	18.4	0.0	22.7
LnGrp LOS	C	C	D	D	C	C	B	B	C	B	A	C
Approach Vol, veh/h	1589				1581		289				150	
Approach Delay, s/veh	36.4				32.3		19.5				21.6	
Approach LOS	D				C		B				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	19.5	10.8	25.0	9.9	17.0	11.2	24.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	13.0	7.0	20.0	7.0	13.0	7.0	* 20					
Max Q Clear Time (g_c+1), s	7.2	7.3	19.9	4.8	5.7	4.7	18.3					
Green Ext Time (p_c), s	0.0	0.3	0.0	0.1	0.0	0.3	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
221: Town Center Blvd & Campus Pkwy

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	318	2766	195	142	2828	44	96	29	141	286	32	386
Future Volume (veh/h)	318	2766	195	142	2828	44	96	29	141	286	32	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	346	3007	212	154	3074	48	104	32	153	311	35	420
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	293	2916	201	152	2654	41	130	197	167	307	18	214
Arrive On Green	0.17	0.60	0.60	0.09	0.52	0.52	0.05	0.11	0.11	0.09	0.15	0.15
Sat Flow, veh/h	1767	4839	333	1767	5138	80	1767	1856	1572	1767	122	1469
Grp Volume(v), veh/h	346	2078	1141	154	2015	1107	104	32	153	311	0	455
Grp Sat Flow(s),veh/h/ln	1767	1689	1796	1767	1689	1841	1767	1856	1572	1767	0	1591
Q Serve(g_s), s	25.0	91.0	91.0	13.0	78.0	78.0	7.0	2.4	14.6	13.0	0.0	22.0
Cycle Q Clear(g_c), s	25.0	91.0	91.0	13.0	78.0	78.0	7.0	2.4	14.6	13.0	0.0	22.0
Prop In Lane	1.00		0.19	1.00		0.04	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	293	2035	1082	152	1744	951	130	197	167	307	0	232
V/C Ratio(X)	1.18	1.02	1.05	1.01	1.16	1.16	0.80	0.16	0.92	1.01	0.00	1.96
Avail Cap(c_a), veh/h	293	2035	1082	152	1744	951	130	197	167	307	0	232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.0	30.0	30.0	69.0	36.5	36.5	60.1	61.4	66.9	61.0	0.0	64.5
Incr Delay (d2), s/veh	111.5	25.4	43.1	76.2	76.8	85.4	29.3	0.4	46.6	54.5	0.0	448.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.1	40.7	48.6	9.0	48.7	55.4	1.7	1.1	7.9	10.3	0.0	37.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	174.5	55.4	73.1	145.2	113.3	121.9	89.4	61.8	113.5	115.5	0.0	513.0
LnGrp LOS	F	F	F	F	F	F	F	F	E	F	F	A
Approach Vol, veh/h	3565			3276			289			766		
Approach Delay, s/veh	72.6			117.7			99.1			351.6		
Approach LOS	E			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	21.0	17.0	96.0	11.0	27.0	30.0	83.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	16.0	13.0	90.0	7.0	22.0	25.0	* 78					
Max Q Clear Time (g_c+M), s	16.6	15.0	93.0	9.0	24.0	27.0	80.0					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay	119.3
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
221: Town Center Blvd & Campus Pkwy

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵	↑	↵	↵	↵	↵
Traffic Volume (veh/h)	318	2766	195	142	2828	44	96	29	141	286	32	386
Future Volume (veh/h)	318	2766	195	142	2828	44	96	29	141	286	32	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	346	3007	212	154	3074	48	104	32	153	311	35	420
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	293	2916	201	152	2654	41	130	197	167	307	18	214
Arrive On Green	0.17	0.60	0.60	0.09	0.52	0.52	0.05	0.11	0.11	0.09	0.15	0.15
Sat Flow, veh/h	1767	4839	333	1767	5138	80	1767	1856	1572	1767	122	1469
Grp Volume(v), veh/h	346	2078	1141	154	2015	1107	104	32	153	311	0	455
Grp Sat Flow(s),veh/h/ln	1767	1689	1796	1767	1689	1841	1767	1856	1572	1767	0	1591
Q Serve(g_s), s	25.0	91.0	91.0	13.0	78.0	78.0	7.0	2.4	14.6	13.0	0.0	22.0
Cycle Q Clear(g_c), s	25.0	91.0	91.0	13.0	78.0	78.0	7.0	2.4	14.6	13.0	0.0	22.0
Prop In Lane	1.00		0.19	1.00		0.04	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	293	2035	1082	152	1744	951	130	197	167	307	0	232
V/C Ratio(X)	1.18	1.02	1.05	1.01	1.16	1.16	0.80	0.16	0.92	1.01	0.00	1.96
Avail Cap(c_a), veh/h	293	2035	1082	152	1744	951	130	197	167	307	0	232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.0	30.0	30.0	69.0	36.5	36.5	60.1	61.4	66.9	61.0	0.0	64.5
Incr Delay (d2), s/veh	111.5	25.4	43.1	76.2	76.8	85.4	29.3	0.4	46.6	54.5	0.0	448.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.1	40.7	48.6	9.0	48.7	55.4	1.7	1.1	7.9	10.3	0.0	37.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	174.5	55.4	73.1	145.2	113.3	121.9	89.4	61.8	113.5	115.5	0.0	513.0
LnGrp LOS	F	F	F	F	F	F	F	F	E	F	F	A
Approach Vol, veh/h	3565			3276			289			766		
Approach Delay, s/veh	72.6			117.7			99.1			351.6		
Approach LOS	E			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	21.0	17.0	96.0	11.0	27.0	30.0	83.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	13.0	16.0	13.0	90.0	7.0	22.0	25.0	* 78				
Max Q Clear Time (g_c+M), s	16.6	16.6	15.0	93.0	9.0	24.0	27.0	80.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	119.3
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 221: Town Center Blvd & Campus Pkwy

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↗	↔↔	↑↑↑		↗	↑	↗	↔↔	↑	↗
Traffic Volume (veh/h)	203	1248	6	48	1036	60	0	1097	2	268	794	37
Future Volume (veh/h)	203	1248	6	48	1036	60	0	1097	2	268	794	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	221	1357	7	52	1126	65	0	1192	2	291	863	40
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	195	1182	322	76	1042	60	234	987	904	219	1158	981
Arrive On Green	0.06	0.23	0.23	0.04	0.21	0.21	0.00	0.53	0.53	0.06	0.62	0.62
Sat Flow, veh/h	3428	5066	1572	1767	4899	283	1767	1856	1572	3428	1856	1572
Grp Volume(v), veh/h	221	1357	7	52	776	415	0	1192	2	291	863	40
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1767	1689	1805	1767	1856	1572	1714	1856	1572
Q Serve(g_s), s	8.0	32.9	4.5	4.1	30.0	30.0	0.0	75.0	0.1	9.0	46.1	0.9
Cycle Q Clear(g_c), s	8.0	32.9	4.5	4.1	30.0	30.0	0.0	75.0	0.1	9.0	46.1	0.9
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	195	1182	322	76	719	384	234	987	904	219	1158	981
V/C Ratio(X)	1.14	1.15	0.02	0.68	1.08	1.08	0.00	1.21	0.00	1.33	0.75	0.04
Avail Cap(c_a), veh/h	195	1182	322	88	719	384	321	987	904	219	1158	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	54.0	771.7	66.5	55.5	55.5	0.0	33.0	12.7	66.0	18.6	4.5
Incr Delay (d2), s/veh	105.9	76.7	0.0	16.4	57.2	69.3	0.0	103.1	0.0	176.3	2.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	22.0	0.2	2.2	18.1	20.7	0.0	60.8	0.0	9.3	19.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	172.4	130.7	771.8	82.9	112.7	124.8	0.0	136.1	12.7	242.3	21.3	4.5
LnGrp LOS	F	F	F	F	F	F		F	B	F	C	A
Approach Vol, veh/h		1585			1243			1194			1194	
Approach Delay, s/veh		139.4			115.5			135.9			74.6	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.0	80.0	10.1	37.9	0.0	93.0	13.0	35.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	3.0	75.0	7.0	31.0	7.0	77.0	8.0	* 30				
Max Q Clear Time (g_c+fl), s	3.0	77.0	6.1	34.9	0.0	48.1	10.0	32.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay, s/veh		118.1										
HCM 6th LOS			F									

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 221: Town Center Blvd & Campus Pkwy

Future PM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↗	↖↑↑	↑↑↑		↖	↑	↗	↖↗	↑	↗
Traffic Volume (veh/h)	318	2766	195	142	2828	44	96	29	141	286	32	386
Future Volume (veh/h)	318	2766	195	142	2828	44	96	29	141	286	32	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	346	3007	212	154	3074	48	104	32	153	311	35	420
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	317	3026	1018	138	2960	46	225	172	268	357	272	231
Arrive On Green	0.09	0.60	0.60	0.08	0.58	0.58	0.05	0.09	0.09	0.10	0.15	0.15
Sat Flow, veh/h	3428	5066	1572	1767	5138	80	1767	1856	1572	3428	1856	1572
Grp Volume(v), veh/h	346	3007	212	154	2015	1107	104	32	153	311	35	420
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1767	1689	1841	1767	1856	1572	1714	1856	1572
Q Serve(g_s), s	13.0	82.7	7.7	11.0	81.0	81.0	7.0	2.2	12.6	12.6	2.3	16.7
Cycle Q Clear(g_c), s	13.0	82.7	7.7	11.0	81.0	81.0	7.0	2.2	12.6	12.6	2.3	16.7
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	3026	1018	138	1945	1061	225	172	268	357	272	231
V/C Ratio(X)	1.09	0.99	0.21	1.11	1.04	1.04	0.46	0.19	0.57	0.87	0.13	1.82
Avail Cap(c_a), veh/h	317	3026	1018	138	1945	1061	225	172	268	366	277	235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.8	28.1	10.1	64.8	29.8	29.8	55.0	58.9	53.6	62.1	52.2	39.2
Incr Delay (d2), s/veh	77.3	14.9	0.1	110.4	30.3	39.8	1.5	0.5	2.9	19.7	0.2	386.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	34.2	2.5	9.1	38.1	44.3	3.5	1.1	5.1	6.5	1.1	31.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	141.2	42.9	10.2	175.3	60.2	69.6	56.5	59.4	56.4	81.7	52.4	425.3
LnGrp LOS	F	D	B	F	F	F	E	E	E	F	D	F
Approach Vol, veh/h		3565			3276			289			766	
Approach Delay, s/veh		50.5			68.8			56.8			268.8	
Approach LOS		D			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	18.0	15.0	89.0	11.0	25.6	18.0	86.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	5.0	* 5				
Max Green Setting (Gmax), s	15.0	13.0	11.0	83.0	7.0	21.0	13.0	* 81				
Max Q Clear Time (g_c+1/4), s	14.6	14.6	13.0	84.7	9.0	18.7	15.0	83.0				
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	79.5
HCM 6th LOS	E

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection				
Intersection Delay, s/veh	5.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	286	29	261	260
Demand Flow Rate, veh/h	294	30	269	268
Vehicles Circulating, veh/h	173	406	161	127
Vehicles Exiting, veh/h	222	24	306	309
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.6	4.3	5.3	5.0
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	294	30	269	268
Cap Entry Lane, veh/h	1157	912	1171	1212
Entry HV Adj Factor	0.972	0.983	0.972	0.971
Flow Entry, veh/h	286	29	261	260
Cap Entry, veh/h	1124	896	1138	1178
V/C Ratio	0.254	0.033	0.230	0.221
Control Delay, s/veh	5.6	4.3	5.3	5.0
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	1



Intersection				
Intersection Delay, s/veh	5.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	286	29	261	260
Demand Flow Rate, veh/h	294	30	269	268
Vehicles Circulating, veh/h	173	406	161	127
Vehicles Exiting, veh/h	222	24	306	309
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.6	4.3	5.3	5.0
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	294	30	269	268
Cap Entry Lane, veh/h	1157	912	1171	1212
Entry HV Adj Factor	0.972	0.983	0.972	0.971
Flow Entry, veh/h	286	29	261	260
Cap Entry, veh/h	1124	896	1138	1178
V/C Ratio	0.254	0.033	0.230	0.221
Control Delay, s/veh	5.6	4.3	5.3	5.0
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	1

Intersection				
Intersection Delay, s/veh	19.3			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	882	368	481	370
Demand Flow Rate, veh/h	909	379	496	381
Vehicles Circulating, veh/h	287	633	484	610
Vehicles Exiting, veh/h	704	347	712	402
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	27.8	13.2	13.5	12.8
Approach LOS	D	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	909	379	496	381
Cap Entry Lane, veh/h	1030	724	842	741
Entry HV Adj Factor	0.971	0.971	0.970	0.971
Flow Entry, veh/h	882	368	481	370
Cap Entry, veh/h	1000	702	817	719
V/C Ratio	0.883	0.524	0.589	0.514
Control Delay, s/veh	27.8	13.2	13.5	12.8
LOS	D	B	B	B
95th %tile Queue, veh	12	3	4	3

Intersection				
Intersection Delay, s/veh	19.3			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	882	368	481	370
Demand Flow Rate, veh/h	909	379	496	381
Vehicles Circulating, veh/h	287	633	484	610
Vehicles Exiting, veh/h	704	347	712	402
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	27.8	13.2	13.5	12.8
Approach LOS	D	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	909	379	496	381
Cap Entry Lane, veh/h	1030	724	842	741
Entry HV Adj Factor	0.971	0.971	0.970	0.971
Flow Entry, veh/h	882	368	481	370
Cap Entry, veh/h	1000	702	817	719
V/C Ratio	0.883	0.524	0.589	0.514
Control Delay, s/veh	27.8	13.2	13.5	12.8
LOS	D	B	B	B
95th %tile Queue, veh	12	3	4	3

Intersection				
Intersection Delay, s/veh	8.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	207	584	636
Demand Flow Rate, veh/h	0	213	601	656
Vehicles Circulating, veh/h	766	485	122	110
Vehicles Exiting, veh/h	0	238	644	588
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	7.2	8.4	9.0
Approach LOS	-	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	0	213	601	656
Cap Entry Lane, veh/h	632	841	1218	1233
Entry HV Adj Factor	1.000	0.972	0.972	0.970
Flow Entry, veh/h	0	207	584	636
Cap Entry, veh/h	632	818	1184	1197
V/C Ratio	0.000	0.253	0.493	0.532
Control Delay, s/veh	5.7	7.2	8.4	9.0
LOS	A	A	A	A
95th %tile Queue, veh	0	1	3	3

Intersection				
Intersection Delay, s/veh	8.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	207	584	636
Demand Flow Rate, veh/h	0	213	601	656
Vehicles Circulating, veh/h	766	485	122	110
Vehicles Exiting, veh/h	0	238	644	588
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	7.2	8.4	9.0
Approach LOS	-	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	0	213	601	656
Cap Entry Lane, veh/h	632	841	1218	1233
Entry HV Adj Factor	1.000	0.972	0.972	0.970
Flow Entry, veh/h	0	207	584	636
Cap Entry, veh/h	632	818	1184	1197
V/C Ratio	0.000	0.253	0.493	0.532
Control Delay, s/veh	5.7	7.2	8.4	9.0
LOS	A	A	A	A
95th %tile Queue, veh	0	1	3	3

Intersection				
Intersection Delay, s/veh	17.8			
Intersection LOS	F			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	314	797	923	1845
Demand Flow Rate, veh/h	323	821	951	1900
Vehicles Circulating, veh/h	1771	1054	876	165
Vehicles Exiting, veh/h	294	773	1218	1710
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	257.1	364.9	334.8	299.4
Approach LOS	F	F	F	F
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	323	821	951	1900
Cap Entry Lane, veh/h	227	471	565	1166
Entry HV Adj Factor	0.971	0.971	0.971	0.971
Flow Entry, veh/h	314	797	923	1845
Cap Entry, veh/h	220	457	548	1132
V/C Ratio	1.425	1.743	1.684	1.629
Control Delay, s/veh	257.1	364.9	334.8	299.4
LOS	F	F	F	F
95th %tile Queue, veh	18	49	53	96

Intersection				
Intersection Delay, s/veh	17.8			
Intersection LOS	F			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	314	797	923	1845
Demand Flow Rate, veh/h	323	821	951	1900
Vehicles Circulating, veh/h	1771	1054	876	165
Vehicles Exiting, veh/h	294	773	1218	1710
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	257.1	364.9	334.8	299.4
Approach LOS	F	F	F	F
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	323	821	951	1900
Cap Entry Lane, veh/h	227	471	565	1166
Entry HV Adj Factor	0.971	0.971	0.971	0.971
Flow Entry, veh/h	314	797	923	1845
Cap Entry, veh/h	220	457	548	1132
V/C Ratio	1.425	1.743	1.684	1.629
Control Delay, s/veh	257.1	364.9	334.8	299.4
LOS	F	F	F	F
95th %tile Queue, veh	18	49	53	96

Intersection							
Intersection Delay, s/veh	7.0						
Intersection LOS	A						
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	64	146		802		1008	
Demand Flow Rate, veh/h	66	150		826		1038	
Vehicles Circulating, veh/h	830	735		333		17	
Vehicles Exiting, veh/h	225	424		563		868	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	6.3	6.6		8.0		6.3	
Approach LOS	A	A		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.113	0.887	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	66	17	133	388	438	488	550
Cap Entry Lane, veh/h	701	687	760	994	1070	1329	1400
Entry HV Adj Factor	0.966	0.991	0.970	0.972	0.971	0.971	0.971
Flow Entry, veh/h	64	17	129	377	425	474	534
Cap Entry, veh/h	677	681	737	966	1039	1290	1360
V/C Ratio	0.094	0.025	0.175	0.390	0.409	0.367	0.393
Control Delay, s/veh	6.3	5.5	6.8	8.0	7.9	6.2	6.3
LOS	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	2	2	2	2



Intersection							
Intersection Delay, s/veh40.0							
Intersection LOS E							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	314	797		923		1845	
Demand Flow Rate, veh/h	323	821		951		1900	
Vehicles Circulating, veh/h	1771	1054		876		165	
Vehicles Exiting, veh/h	294	773		1218		1710	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	96.3	87.2		24.5		17.8	
Approach LOS	F	F		C		C	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	LT	TR
Assumed Moves	LTR	LT	R	LT	TR	LT	TR
RT Channelized							
Lane Util	1.000	0.200	0.800	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	323	164	657	447	504	893	1007
Cap Entry Lane, veh/h	315	512	580	603	674	1160	1234
Entry HV Adj Factor	0.971	0.972	0.971	0.971	0.971	0.971	0.971
Flow Entry, veh/h	314	159	638	434	489	867	978
Cap Entry, veh/h	306	498	563	585	655	1126	1198
V/C Ratio	1.025	0.320	1.133	0.741	0.747	0.770	0.816
Control Delay, s/veh	96.3	12.2	105.9	25.4	23.7	16.8	18.8
LOS	F	B	F	D	C	C	C
95th %tile Queue, veh	11	1	21	6	7	8	10

Intersection				
Intersection Delay, s/veh	4.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	132	205	130	168
Demand Flow Rate, veh/h	135	212	134	173
Vehicles Circulating, veh/h	156	118	145	174
Vehicles Exiting, veh/h	191	161	146	156
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.1	4.5	4.1	4.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	135	212	134	173
Cap Entry Lane, veh/h	1177	1223	1190	1155
Entry HV Adj Factor	0.975	0.969	0.968	0.969
Flow Entry, veh/h	132	205	130	168
Cap Entry, veh/h	1147	1186	1152	1120
V/C Ratio	0.115	0.173	0.113	0.150
Control Delay, s/veh	4.1	4.5	4.1	4.5
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Intersection				
Intersection Delay, s/veh	4.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	132	205	130	168
Demand Flow Rate, veh/h	135	212	134	173
Vehicles Circulating, veh/h	156	118	145	174
Vehicles Exiting, veh/h	191	161	146	156
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.1	4.5	4.1	4.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	135	212	134	173
Cap Entry Lane, veh/h	1177	1223	1190	1155
Entry HV Adj Factor	0.975	0.969	0.968	0.969
Flow Entry, veh/h	132	205	130	168
Cap Entry, veh/h	1147	1186	1152	1120
V/C Ratio	0.115	0.173	0.113	0.150
Control Delay, s/veh	4.1	4.5	4.1	4.5
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Intersection				
Intersection Delay, s/veh	5.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	325	379	130	173
Demand Flow Rate, veh/h	334	391	134	178
Vehicles Circulating, veh/h	156	118	344	353
Vehicles Exiting, veh/h	375	360	146	156
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.8	6.1	5.1	5.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	334	391	134	178
Cap Entry Lane, veh/h	1177	1223	972	963
Entry HV Adj Factor	0.973	0.970	0.968	0.970
Flow Entry, veh/h	325	379	130	173
Cap Entry, veh/h	1145	1187	940	934
V/C Ratio	0.284	0.320	0.138	0.185
Control Delay, s/veh	5.8	6.1	5.1	5.7
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	1

Intersection				
Intersection Delay, s/veh	5.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	325	379	130	173
Demand Flow Rate, veh/h	334	391	134	178
Vehicles Circulating, veh/h	156	118	344	353
Vehicles Exiting, veh/h	375	360	146	156
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.8	6.1	5.1	5.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	334	391	134	178
Cap Entry Lane, veh/h	1177	1223	972	963
Entry HV Adj Factor	0.973	0.970	0.968	0.970
Flow Entry, veh/h	325	379	130	173
Cap Entry, veh/h	1145	1187	940	934
V/C Ratio	0.284	0.320	0.138	0.185
Control Delay, s/veh	5.8	6.1	5.1	5.7
LOS	A	A	A	A
95th %tile Queue, veh	1	1	0	1

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	84	282	227	16	32	64
Future Vol, veh/h	84	282	227	16	32	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	91	307	247	17	35	70

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	264	0	-	0	745 256
Stage 1	-	-	-	-	256 -
Stage 2	-	-	-	-	489 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1294	-	-	-	380 780
Stage 1	-	-	-	-	784 -
Stage 2	-	-	-	-	614 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1294	-	-	-	353 780
Mov Cap-2 Maneuver	-	-	-	-	463 -
Stage 1	-	-	-	-	729 -
Stage 2	-	-	-	-	614 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1294	-	-	-	463	780
HCM Lane V/C Ratio	0.071	-	-	-	0.075	0.089
HCM Control Delay (s)	8	-	-	-	13.4	10.1
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2	0.3

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↑	↔		↔	↔
Traffic Vol, veh/h	84	282	227	16	32	64
Future Vol, veh/h	84	282	227	16	32	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	91	307	247	17	35	70

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	264	0	-	0	745 256
Stage 1	-	-	-	-	256 -
Stage 2	-	-	-	-	489 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1294	-	-	-	380 780
Stage 1	-	-	-	-	784 -
Stage 2	-	-	-	-	614 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1294	-	-	-	353 780
Mov Cap-2 Maneuver	-	-	-	-	463 -
Stage 1	-	-	-	-	729 -
Stage 2	-	-	-	-	614 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1294	-	-	-	463	780
HCM Lane V/C Ratio	0.071	-	-	-	0.075	0.089
HCM Control Delay (s)	8	-	-	-	13.4	10.1
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2	0.3

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	84	334	264	16	32	64
Future Vol, veh/h	84	334	264	16	32	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	91	363	287	17	35	70

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	304	0	-	0	841 296
Stage 1	-	-	-	-	296 -
Stage 2	-	-	-	-	545 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1251	-	-	-	334 741
Stage 1	-	-	-	-	752 -
Stage 2	-	-	-	-	579 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1251	-	-	-	310 741
Mov Cap-2 Maneuver	-	-	-	-	428 -
Stage 1	-	-	-	-	697 -
Stage 2	-	-	-	-	579 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1251	-	-	-	428	741
HCM Lane V/C Ratio	0.073	-	-	-	0.081	0.094
HCM Control Delay (s)	8.1	-	-	-	14.2	10.4
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3	0.3



Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	84	334	264	16	32	64
Future Vol, veh/h	84	334	264	16	32	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	91	363	287	17	35	70

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	304	0	-	0	841 296
Stage 1	-	-	-	-	296 -
Stage 2	-	-	-	-	545 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	1251	-	-	-	334 741
Stage 1	-	-	-	-	752 -
Stage 2	-	-	-	-	579 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1251	-	-	-	310 741
Mov Cap-2 Maneuver	-	-	-	-	428 -
Stage 1	-	-	-	-	697 -
Stage 2	-	-	-	-	579 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1251	-	-	-	428	741
HCM Lane V/C Ratio	0.073	-	-	-	0.081	0.094
HCM Control Delay (s)	8.1	-	-	-	14.2	10.4
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3	0.3

Intersection				
Intersection Delay, s/veh	12.2			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	203	199	799	535
Demand Flow Rate, veh/h	209	205	823	551
Vehicles Circulating, veh/h	756	611	209	205
Vehicles Exiting, veh/h	0	421	756	611
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.3	8.3	15.7	8.9
Approach LOS	B	A	C	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	209	205	823	551
Cap Entry Lane, veh/h	638	740	1115	1120
Entry HV Adj Factor	0.969	0.971	0.971	0.971
Flow Entry, veh/h	203	199	799	535
Cap Entry, veh/h	619	718	1082	1087
V/C Ratio	0.327	0.277	0.738	0.492
Control Delay, s/veh	10.3	8.3	15.7	8.9
LOS	B	A	C	A
95th %tile Queue, veh	1	1	7	3

Intersection				
Intersection Delay, s/veh	12.2			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	203	199	799	535
Demand Flow Rate, veh/h	209	205	823	551
Vehicles Circulating, veh/h	756	611	209	205
Vehicles Exiting, veh/h	0	421	756	611
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.3	8.3	15.7	8.9
Approach LOS	B	A	C	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	209	205	823	551
Cap Entry Lane, veh/h	638	740	1115	1120
Entry HV Adj Factor	0.969	0.971	0.971	0.971
Flow Entry, veh/h	203	199	799	535
Cap Entry, veh/h	619	718	1082	1087
V/C Ratio	0.327	0.277	0.738	0.492
Control Delay, s/veh	10.3	8.3	15.7	8.9
LOS	B	A	C	A
95th %tile Queue, veh	1	1	7	3

Intersection				
Intersection Delay, s/veh	23.4			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	277	239	956	717
Demand Flow Rate, veh/h	286	246	985	739
Vehicles Circulating, veh/h	921	770	265	256
Vehicles Exiting, veh/h	74	480	942	760
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	17.1	11.6	34.8	14.5
Approach LOS	C	B	D	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	286	246	985	739
Cap Entry Lane, veh/h	539	629	1053	1063
Entry HV Adj Factor	0.968	0.970	0.971	0.970
Flow Entry, veh/h	277	239	956	717
Cap Entry, veh/h	522	611	1023	1031
V/C Ratio	0.530	0.391	0.935	0.695
Control Delay, s/veh	17.1	11.6	34.8	14.5
LOS	C	B	D	B
95th %tile Queue, veh	3	2	15	6

Intersection				
Intersection Delay, s/veh	23.4			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	277	239	956	717
Demand Flow Rate, veh/h	286	246	985	739
Vehicles Circulating, veh/h	921	770	265	256
Vehicles Exiting, veh/h	74	480	942	760
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	17.1	11.6	34.8	14.5
Approach LOS	C	B	D	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	286	246	985	739
Cap Entry Lane, veh/h	539	629	1053	1063
Entry HV Adj Factor	0.968	0.970	0.971	0.970
Flow Entry, veh/h	277	239	956	717
Cap Entry, veh/h	522	611	1023	1031
V/C Ratio	0.530	0.391	0.935	0.695
Control Delay, s/veh	17.1	11.6	34.8	14.5
LOS	C	B	D	B
95th %tile Queue, veh	3	2	15	6

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	6	5	0	0	0	11	97	0	2	94	0
Future Vol, veh/h	0	6	5	0	0	0	11	97	0	2	94	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	7	5	0	0	0	12	105	0	2	102	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	235	235	102	241	235	105	102	0	0	105	0	0
Stage 1	106	106	-	129	129	-	-	-	-	-	-	-
Stage 2	129	129	-	112	106	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	717	664	950	711	664	947	1484	-	-	1480	-	-
Stage 1	897	806	-	872	787	-	-	-	-	-	-	-
Stage 2	872	787	-	891	806	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	711	657	950	696	657	947	1484	-	-	1480	-	-
Mov Cap-2 Maneuver	711	657	-	696	657	-	-	-	-	-	-	-
Stage 1	889	805	-	864	780	-	-	-	-	-	-	-
Stage 2	864	780	-	878	805	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	0	0.8	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1484	-	-	764	-	1480	-
HCM Lane V/C Ratio	0.008	-	-	0.016	-	0.001	-
HCM Control Delay (s)	7.4	0	-	9.8	0	7.4	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	6	5	0	0	0	11	97	0	2	94	0
Future Vol, veh/h	0	6	5	0	0	0	11	97	0	2	94	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	7	5	0	0	0	12	105	0	2	102	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	235	235	102	241	235	105	102	0	0	105	0	0
Stage 1	106	106	-	129	129	-	-	-	-	-	-	-
Stage 2	129	129	-	112	106	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	717	664	950	711	664	947	1484	-	-	1480	-	-
Stage 1	897	806	-	872	787	-	-	-	-	-	-	-
Stage 2	872	787	-	891	806	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	711	657	950	696	657	947	1484	-	-	1480	-	-
Mov Cap-2 Maneuver	711	657	-	696	657	-	-	-	-	-	-	-
Stage 1	889	805	-	864	780	-	-	-	-	-	-	-
Stage 2	864	780	-	878	805	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.8		0		0.8		0.2	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1484	-	-	764	-	1480	-
HCM Lane V/C Ratio	0.008	-	-	0.016	-	0.001	-
HCM Control Delay (s)	7.4	0	-	9.8	0	7.4	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	6	7	0	0	0	12	138	0	2	113	21
Future Vol, veh/h	1	6	7	0	0	0	12	138	0	2	113	21
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	1	7	8	0	0	0	13	150	0	2	123	23

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	315	315	135	322	326	150	146	0	0	150	0	0
Stage 1	139	139	-	176	176	-	-	-	-	-	-	-
Stage 2	176	176	-	146	150	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	636	599	911	629	591	894	1430	-	-	1425	-	-
Stage 1	862	780	-	823	752	-	-	-	-	-	-	-
Stage 2	823	752	-	854	771	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	630	592	911	613	584	894	1430	-	-	1425	-	-
Mov Cap-2 Maneuver	630	592	-	613	584	-	-	-	-	-	-	-
Stage 1	853	778	-	815	744	-	-	-	-	-	-	-
Stage 2	815	744	-	838	769	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.1		0		0.6		0.1	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1430	-	-	721	-	1425	-
HCM Lane V/C Ratio	0.009	-	-	0.021	-	0.002	-
HCM Control Delay (s)	7.5	0	-	10.1	0	7.5	0
HCM Lane LOS	A	A	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-



Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	6	7	0	0	0	12	138	0	2	113	21
Future Vol, veh/h	1	6	7	0	0	0	12	138	0	2	113	21
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	1	7	8	0	0	0	13	150	0	2	123	23

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	315	315	135	322	326	150	146	0	0	150	0	0
Stage 1	139	139	-	176	176	-	-	-	-	-	-	-
Stage 2	176	176	-	146	150	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	636	599	911	629	591	894	1430	-	-	1425	-	-
Stage 1	862	780	-	823	752	-	-	-	-	-	-	-
Stage 2	823	752	-	854	771	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	630	592	911	613	584	894	1430	-	-	1425	-	-
Mov Cap-2 Maneuver	630	592	-	613	584	-	-	-	-	-	-	-
Stage 1	853	778	-	815	744	-	-	-	-	-	-	-
Stage 2	815	744	-	838	769	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.1		0		0.6		0.1	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1430	-	-	721	-	1425	-
HCM Lane V/C Ratio	0.009	-	-	0.021	-	0.002	-
HCM Control Delay (s)	7.5	0	-	10.1	0	7.5	0
HCM Lane LOS	A	A	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	8	0	0	12	0	0	167	6	0	65	1
Future Vol, veh/h	0	8	0	0	12	0	0	167	6	0	65	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	9	0	0	13	0	0	182	7	0	71	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	264	261	72	262	258	186	72	0	0	189	0	0
Stage 1	72	72	-	186	186	-	-	-	-	-	-	-
Stage 2	192	189	-	76	72	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	687	642	987	689	645	854	1522	-	-	1379	-	-
Stage 1	935	833	-	813	744	-	-	-	-	-	-	-
Stage 2	807	742	-	931	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	677	642	987	682	645	854	1522	-	-	1379	-	-
Mov Cap-2 Maneuver	677	642	-	682	645	-	-	-	-	-	-	-
Stage 1	935	833	-	813	744	-	-	-	-	-	-	-
Stage 2	793	742	-	921	833	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1522	-	-	642	645	1379	-
HCM Lane V/C Ratio	-	-	-	0.014	0.02	-	-
HCM Control Delay (s)	0	-	-	10.7	10.7	0	-
HCM Lane LOS	A	-	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	8	0	0	12	0	0	167	6	0	65	1
Future Vol, veh/h	0	8	0	0	12	0	0	167	6	0	65	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	9	0	0	13	0	0	182	7	0	71	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	264	261	72	262	258	186	72	0	0	189	0	0
Stage 1	72	72	-	186	186	-	-	-	-	-	-	-
Stage 2	192	189	-	76	72	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	687	642	987	689	645	854	1522	-	-	1379	-	-
Stage 1	935	833	-	813	744	-	-	-	-	-	-	-
Stage 2	807	742	-	931	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	677	642	987	682	645	854	1522	-	-	1379	-	-
Mov Cap-2 Maneuver	677	642	-	682	645	-	-	-	-	-	-	-
Stage 1	935	833	-	813	744	-	-	-	-	-	-	-
Stage 2	793	742	-	921	833	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR	
Capacity (veh/h)	1522	-	-	642	645	1379	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.02	-	-	-
HCM Control Delay (s)	0	-	-	10.7	10.7	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

HCM 6th TWSC  
229: Prairie Baptist Rd & 156th St

Future AM Peak

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	8	85	0	32	0	205	1162	6	0	634	122
Future Vol, veh/h	70	8	85	0	32	0	205	1162	6	0	634	122
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	76	9	92	0	35	0	223	1263	7	0	689	133

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2486	2472	756	2519	2535	1267	822	0	0	1270	0	0
Stage 1	756	756	-	1713	1713	-	-	-	-	-	-	-
Stage 2	1730	1716	-	806	822	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	~ 20	30	406	19	~ 27	205	803	-	-	544	-	-
Stage 1	399	415	-	114	145	-	-	-	-	-	-	-
Stage 2	111	144	-	374	387	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 2	406	-	~ 1	205	803	-	-	544	-	-
Mov Cap-2 Maneuver	-	~ 2	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	~ 22	415	-	6	~ 8	-	-	-	-	-	-	-
Stage 2	-	~ 8	-	283	387	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			1.7	0
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	803	-	-	-	544	-	-
HCM Lane V/C Ratio	0.277	-	-	-	-	-	-
HCM Control Delay (s)	11.2	0	-	-	0	-	-
HCM Lane LOS	B	A	-	-	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-	0	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
229: Prairie Baptist Rd & 156th St

Future PM Peak

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	8	85	0	32	0	205	1162	6	0	634	122
Future Vol, veh/h	70	8	85	0	32	0	205	1162	6	0	634	122
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	76	9	92	0	35	0	223	1263	7	0	689	133

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2486	2472	756	2519	2535	1267	822	0	0	1270	0	0
Stage 1	756	756	-	1713	1713	-	-	-	-	-	-	-
Stage 2	1730	1716	-	806	822	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	~ 20	30	406	19	~ 27	205	803	-	-	544	-	-
Stage 1	399	415	-	114	145	-	-	-	-	-	-	-
Stage 2	111	144	-	374	387	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 2	406	-	~ 1	205	803	-	-	544	-	-
Mov Cap-2 Maneuver	-	~ 2	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	~ 22	415	-	6	~ 8	-	-	-	-	-	-	-
Stage 2	-	~ 8	-	283	387	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			1.7	0
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	803	-	-	-	544	-	-
HCM Lane V/C Ratio	0.277	-	-	-	-	-	-
HCM Control Delay (s)	11.2	0	-	-	0	-	-
HCM Lane LOS	B	A	-	-	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-	0	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh	9.1					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	202	10	308		1383	
Demand Flow Rate, veh/h	208	10	318		1425	
Vehicles Circulating, veh/h	1404	384	67		65	
Vehicles Exiting, veh/h	86	1	1545		329	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	18.8	3.7	3.8		8.9	
Approach LOS	C	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	208	10	149	169	670	755
Cap Entry Lane, veh/h	430	1025	1269	1341	1271	1344
Entry HV Adj Factor	0.971	0.974	0.973	0.967	0.970	0.971
Flow Entry, veh/h	202	10	145	163	650	733
Cap Entry, veh/h	418	998	1234	1297	1234	1305
V/C Ratio	0.483	0.010	0.117	0.126	0.527	0.562
Control Delay, s/veh	18.8	3.7	3.9	3.8	8.8	9.0
LOS	C	A	A	A	A	A
95th %tile Queue, veh	3	0	0	0	3	4

Intersection						
Intersection Delay, s/veh	9.1					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	177	36	1493		822	
Demand Flow Rate, veh/h	182	37	1538		847	
Vehicles Circulating, veh/h	711	1609	87		267	
Vehicles Exiting, veh/h	403	16	806		1379	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	7.4	11.9	10.1		7.4	
Approach LOS	A	B	B		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	182	37	723	815	398	449
Cap Entry Lane, veh/h	776	362	1246	1319	1056	1132
Entry HV Adj Factor	0.971	0.972	0.971	0.971	0.971	0.971
Flow Entry, veh/h	177	36	702	791	386	436
Cap Entry, veh/h	753	351	1209	1281	1025	1099
V/C Ratio	0.235	0.102	0.580	0.618	0.377	0.397
Control Delay, s/veh	7.4	11.9	9.9	10.3	7.5	7.4
LOS	A	B	A	B	A	A
95th %tile Queue, veh	1	0	4	5	2	2

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	47	1027	948	37	6	32
Future Vol, veh/h	47	1027	948	37	6	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	100	-	-	455	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	51	1116	1030	40	7	35

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1070	0	0 2248 1030
Stage 1	-	-	- 1030 -
Stage 2	-	-	- 1218 -
Critical Hdwy	4.13	-	- 6.43 6.23
Critical Hdwy Stg 1	-	-	- 5.43 -
Critical Hdwy Stg 2	-	-	- 5.43 -
Follow-up Hdwy	2.227	-	- 3.527 3.327
Pot Cap-1 Maneuver	648	-	- 46 282
Stage 1	-	-	- 343 -
Stage 2	-	-	- 278 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	648	-	- 42 282
Mov Cap-2 Maneuver	-	-	- 42 -
Stage 1	-	-	- 316 -
Stage 2	-	-	- 278 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	33.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	648	-	-	-	42	282
HCM Lane V/C Ratio	0.079	-	-	-	0.155	0.123
HCM Control Delay (s)	11	-	-	-	105.9	19.6
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5	0.4



Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	47	1027	948	37	6	32
Future Vol, veh/h	47	1027	948	37	6	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	100	-	-	455	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	51	1116	1030	40	7	35

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1070	0	-	0	2248 1030
Stage 1	-	-	-	-	1030 -
Stage 2	-	-	-	-	1218 -
Critical Hdwy	4.13	-	-	-	6.43 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.227	-	-	-	3.527 3.327
Pot Cap-1 Maneuver	648	-	-	-	46 282
Stage 1	-	-	-	-	343 -
Stage 2	-	-	-	-	278 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	648	-	-	-	42 282
Mov Cap-2 Maneuver	-	-	-	-	42 -
Stage 1	-	-	-	-	316 -
Stage 2	-	-	-	-	278 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	33.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	648	-	-	-	42	282
HCM Lane V/C Ratio	0.079	-	-	-	0.155	0.123
HCM Control Delay (s)	11	-	-	-	105.9	19.6
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5	0.4

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	47	1736	1601	37	6	32
Future Vol, veh/h	47	1736	1601	37	6	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	100	-	-	455	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	51	1887	1740	40	7	35

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1780	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.13	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.227	-	-
Pot Cap-1 Maneuver	346	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	346	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	\$ 341.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	346	-	-	-	4	107
HCM Lane V/C Ratio	0.148	-	-	-	1.63	0.325
HCM Control Delay (s)	17.2	-	-	-	\$ 1871.7	54.1
HCM Lane LOS	C	-	-	-	F	F
HCM 95th %tile Q(veh)	0.5	-	-	-	1.7	1.3

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	47	1736	1601	37	6	32
Future Vol, veh/h	47	1736	1601	37	6	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	100	-	-	455	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	51	1887	1740	40	7	35

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1780	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.13	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.227	-	-
Pot Cap-1 Maneuver	346	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	346	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	\$ 341.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	346	-	-	-	4	107
HCM Lane V/C Ratio	0.148	-	-	-	1.63	0.325
HCM Control Delay (s)	17.2	-	-	-	\$ 1871.7	54.1
HCM Lane LOS	C	-	-	-	F	F
HCM 95th %tile Q(veh)	0.5	-	-	-	1.7	1.3

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑		↘	↗
Traffic Vol, veh/h	9	1248	1094	9	12	47
Future Vol, veh/h	9	1248	1094	9	12	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	10	1357	1189	10	13	51

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1199	0	-	0	1893 600
Stage 1	-	-	-	-	1194 -
Stage 2	-	-	-	-	699 -
Critical Hdwy	4.16	-	-	-	6.86 6.96
Critical Hdwy Stg 1	-	-	-	-	5.86 -
Critical Hdwy Stg 2	-	-	-	-	5.86 -
Follow-up Hdwy	2.23	-	-	-	3.53 3.33
Pot Cap-1 Maneuver	572	-	-	-	61 442
Stage 1	-	-	-	-	248 -
Stage 2	-	-	-	-	452 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	572	-	-	-	60 442
Mov Cap-2 Maneuver	-	-	-	-	60 -
Stage 1	-	-	-	-	244 -
Stage 2	-	-	-	-	452 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	27.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	572	-	-	-	60	442
HCM Lane V/C Ratio	0.017	-	-	-	0.217	0.116
HCM Control Delay (s/veh)	11.4	-	-	-	80.9	14.2
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q (veh)	0.1	-	-	-	0.7	0.4

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑		↘	↗
Traffic Vol, veh/h	47	1736	1601	37	6	32
Future Vol, veh/h	47	1736	1601	37	6	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	100	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	51	1887	1740	40	7	35

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1780	0	-	0	2806 890
Stage 1	-	-	-	-	1760 -
Stage 2	-	-	-	-	1046 -
Critical Hdwy	4.16	-	-	-	6.86 6.96
Critical Hdwy Stg 1	-	-	-	-	5.86 -
Critical Hdwy Stg 2	-	-	-	-	5.86 -
Follow-up Hdwy	2.23	-	-	-	3.53 3.33
Pot Cap-1 Maneuver	341	-	-	-	14 284
Stage 1	-	-	-	-	122 -
Stage 2	-	-	-	-	297 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	341	-	-	-	12 284
Mov Cap-2 Maneuver	-	-	-	-	12 -
Stage 1	-	-	-	-	104 -
Stage 2	-	-	-	-	297 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.5	0	94
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	341	-	-	-	12	284
HCM Lane V/C Ratio	0.15	-	-	-	0.543	0.122
HCM Control Delay (s/veh)	17.4	-	-	-	\$ 492	19.4
HCM Lane LOS	C	-	-	-	F	C
HCM 95th %tile Q (veh)	0.5	-	-	-	1.3	0.4

Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Vol, veh/h	0	5	3	190	0	18	3	68	115	103	163	1
Future Vol, veh/h	0	5	3	190	0	18	3	68	115	103	163	1
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	-	-	160	-	-	50	-	-	35	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	5	3	207	0	20	3	74	125	112	177	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	555	607	178	549	545	137	178	0	0	199	0	0
Stage 1	402	402	-	143	143	-	-	-	-	-	-	-
Stage 2	153	205	-	406	402	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	441	410	862	445	444	909	1392	-	-	1367	-	-
Stage 1	623	599	-	857	777	-	-	-	-	-	-	-
Stage 2	847	730	-	620	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	404	376	862	410	407	909	1392	-	-	1367	-	-
Mov Cap-2 Maneuver	404	376	-	410	407	-	-	-	-	-	-	-
Stage 1	622	550	-	855	775	-	-	-	-	-	-	-
Stage 2	827	729	-	561	550	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.7		21.2		0.1		3	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	-	477	410	909	1367	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.018	0.504	0.022	0.082	-	-
HCM Control Delay (s)	7.6	-	-	0	12.7	22.4	9	7.9	-	-
HCM Lane LOS	A	-	-	A	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	2.7	0.1	0.3	-	-

Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	0	5	3	190	0	18	3	68	115	103	163	1
Future Vol, veh/h	0	5	3	190	0	18	3	68	115	103	163	1
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	-	-	160	-	-	50	-	-	35	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	5	3	207	0	20	3	74	125	112	177	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	555	607	178	549	545	137	178	0	0	199	0	0
Stage 1	402	402	-	143	143	-	-	-	-	-	-	-
Stage 2	153	205	-	406	402	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	441	410	862	445	444	909	1392	-	-	1367	-	-
Stage 1	623	599	-	857	777	-	-	-	-	-	-	-
Stage 2	847	730	-	620	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	404	376	862	410	407	909	1392	-	-	1367	-	-
Mov Cap-2 Maneuver	404	376	-	410	407	-	-	-	-	-	-	-
Stage 1	622	550	-	855	775	-	-	-	-	-	-	-
Stage 2	827	729	-	561	550	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.7		21.2		0.1		3	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	-	477	410	909	1367	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.018	0.504	0.022	0.082	-	-
HCM Control Delay (s)	7.6	-	-	0	12.7	22.4	9	7.9	-	-
HCM Lane LOS	A	-	-	A	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	2.7	0.1	0.3	-	-

Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	0	5	3	190	0	18	3	68	115	103	163	1
Future Vol, veh/h	0	5	3	190	0	18	3	68	115	103	163	1
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	-	-	160	-	-	50	-	-	35	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	5	3	207	0	20	3	74	125	112	177	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	555	607	178	549	545	137	178	0	0	199	0	0
Stage 1	402	402	-	143	143	-	-	-	-	-	-	-
Stage 2	153	205	-	406	402	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	441	410	862	445	444	909	1392	-	-	1367	-	-
Stage 1	623	599	-	857	777	-	-	-	-	-	-	-
Stage 2	847	730	-	620	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	404	376	862	410	407	909	1392	-	-	1367	-	-
Mov Cap-2 Maneuver	404	376	-	410	407	-	-	-	-	-	-	-
Stage 1	622	550	-	855	775	-	-	-	-	-	-	-
Stage 2	827	729	-	561	550	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	21.2	0.1	3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	-	477	410	909	1367	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.018	0.504	0.022	0.082	-	-
HCM Control Delay (s)	7.6	-	-	0	12.7	22.4	9	7.9	-	-
HCM Lane LOS	A	-	-	A	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	2.7	0.1	0.3	-	-



Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Vol, veh/h	0	5	3	190	0	18	3	68	115	103	163	1
Future Vol, veh/h	0	5	3	190	0	18	3	68	115	103	163	1
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	-	-	160	-	-	50	-	-	35	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	5	3	207	0	20	3	74	125	112	177	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	555	607	178	549	545	137	178	0	0	199	0	0
Stage 1	402	402	-	143	143	-	-	-	-	-	-	-
Stage 2	153	205	-	406	402	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	441	410	862	445	444	909	1392	-	-	1367	-	-
Stage 1	623	599	-	857	777	-	-	-	-	-	-	-
Stage 2	847	730	-	620	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	404	376	862	410	407	909	1392	-	-	1367	-	-
Mov Cap-2 Maneuver	404	376	-	410	407	-	-	-	-	-	-	-
Stage 1	622	550	-	855	775	-	-	-	-	-	-	-
Stage 2	827	729	-	561	550	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.7		21.2		0.1		3	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	-	477	410	909	1367	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.018	0.504	0.022	0.082	-	-
HCM Control Delay (s)	7.6	-	-	0	12.7	22.4	9	7.9	-	-
HCM Lane LOS	A	-	-	A	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	2.7	0.1	0.3	-	-

HCM 6th Signalized Intersection Summary  
233: Lakeview Dr & Logan St

Existing AM Peak  
12/11/2023
























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	483	5	34	398	294	19	49	48	296	10	24
Future Volume (veh/h)	22	483	5	34	398	294	19	49	48	296	10	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	24	525	5	37	433	320	21	53	52	322	11	26
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	195	895	9	376	483	357	559	283	278	497	161	381
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	705	1835	17	867	991	733	1360	860	844	1279	490	1157
Grp Volume(v), veh/h	24	0	530	37	0	753	21	0	105	322	0	37
Grp Sat Flow(s),veh/h/ln	705	0	1852	867	0	1724	1360	0	1704	1279	0	1647
Q Serve(g_s), s	1.8	0.0	11.2	1.8	0.0	21.7	0.6	0.0	2.4	13.2	0.0	0.8
Cycle Q Clear(g_c), s	23.5	0.0	11.2	13.0	0.0	21.7	1.4	0.0	2.4	15.6	0.0	0.8
Prop In Lane	1.00		0.01	1.00		0.42	1.00		0.50	1.00		0.70
Lane Grp Cap(c), veh/h	195	0	904	376	0	841	559	0	561	497	0	543
V/C Ratio(X)	0.12	0.00	0.59	0.10	0.00	0.90	0.04	0.00	0.19	0.65	0.00	0.07
Avail Cap(c_a), veh/h	225	0	982	413	0	914	633	0	654	566	0	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	10.1	14.7	0.0	12.7	13.1	0.0	13.1	18.7	0.0	12.6
Incr Delay (d2), s/veh	0.3	0.0	0.8	0.1	0.0	10.8	0.0	0.0	0.2	2.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.8	0.3	0.0	9.1	0.2	0.0	0.8	3.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	10.8	14.8	0.0	23.5	13.1	0.0	13.3	20.8	0.0	12.6
LnGrp LOS	C	A	B	B	A	C	B	A	B	C	A	B
Approach Vol, veh/h		554			790			126				359
Approach Delay, s/veh		11.4			23.1			13.2				20.0
Approach LOS		B			C			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		31.7		23.0		31.7				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		21.0		29.0		21.0		29.0				
Max Q Clear Time (g_c+I1), s		4.4		25.5		17.6		23.7				
Green Ext Time (p_c), s		0.5		1.2		0.5		2.5				

Intersection Summary

HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary  
233: Lakeview Dr & Logan St

Existing PM Peak  
12/11/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	483	5	34	398	294	19	49	48	296	10	24
Future Volume (veh/h)	22	483	5	34	398	294	19	49	48	296	10	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	24	525	5	37	433	320	21	53	52	322	11	26
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	195	895	9	376	483	357	559	283	278	497	161	381
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	705	1835	17	867	991	733	1360	860	844	1279	490	1157
Grp Volume(v), veh/h	24	0	530	37	0	753	21	0	105	322	0	37
Grp Sat Flow(s),veh/h/ln	705	0	1852	867	0	1724	1360	0	1704	1279	0	1647
Q Serve(g_s), s	1.8	0.0	11.2	1.8	0.0	21.7	0.6	0.0	2.4	13.2	0.0	0.8
Cycle Q Clear(g_c), s	23.5	0.0	11.2	13.0	0.0	21.7	1.4	0.0	2.4	15.6	0.0	0.8
Prop In Lane	1.00		0.01	1.00		0.42	1.00		0.50	1.00		0.70
Lane Grp Cap(c), veh/h	195	0	904	376	0	841	559	0	561	497	0	543
V/C Ratio(X)	0.12	0.00	0.59	0.10	0.00	0.90	0.04	0.00	0.19	0.65	0.00	0.07
Avail Cap(c_a), veh/h	225	0	982	413	0	914	633	0	654	566	0	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	10.1	14.7	0.0	12.7	13.1	0.0	13.1	18.7	0.0	12.6
Incr Delay (d2), s/veh	0.3	0.0	0.8	0.1	0.0	10.8	0.0	0.0	0.2	2.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.8	0.3	0.0	9.1	0.2	0.0	0.8	3.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	10.8	14.8	0.0	23.5	13.1	0.0	13.3	20.8	0.0	12.6
LnGrp LOS	C	A	B	B	A	C	B	A	B	C	A	B
Approach Vol, veh/h		554			790			126			359	
Approach Delay, s/veh		11.4			23.1			13.2			20.0	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		31.7		23.0		31.7				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		21.0		29.0		21.0		29.0				
Max Q Clear Time (g_c+I1), s		4.4		25.5		17.6		23.7				
Green Ext Time (p_c), s		0.5		1.2		0.5		2.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				18.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
 233: Lakeview Dr & Logan St






















Future AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	483	5	34	398	294	144	49	48	296	10	24
Future Volume (veh/h)	22	483	5	34	398	294	144	49	48	296	10	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	24	525	5	37	433	320	157	53	52	322	11	26
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	134	872	8	315	471	348	194	122	120	361	116	274
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.11	0.14	0.14	0.20	0.24	0.24
Sat Flow, veh/h	705	1835	17	867	991	733	1767	860	844	1767	490	1157
Grp Volume(v), veh/h	24	0	530	37	0	753	157	0	105	322	0	37
Grp Sat Flow(s),veh/h/ln	705	0	1852	867	0	1724	1767	0	1704	1767	0	1647
Q Serve(g_s), s	2.8	0.0	17.7	2.8	0.0	34.3	7.3	0.0	4.8	14.9	0.0	1.5
Cycle Q Clear(g_c), s	37.1	0.0	17.7	20.5	0.0	34.3	7.3	0.0	4.8	14.9	0.0	1.5
Prop In Lane	1.00		0.01	1.00		0.42	1.00		0.50	1.00		0.70
Lane Grp Cap(c), veh/h	134	0	881	315	0	820	194	0	242	361	0	390
V/C Ratio(X)	0.18	0.00	0.60	0.12	0.00	0.92	0.81	0.00	0.43	0.89	0.00	0.09
Avail Cap(c_a), veh/h	149	0	922	335	0	858	314	0	263	419	0	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	16.3	23.8	0.0	20.6	36.7	0.0	33.1	32.6	0.0	25.1
Incr Delay (d2), s/veh	0.6	0.0	1.0	0.2	0.0	14.4	7.8	0.0	1.2	18.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	7.2	0.6	0.0	15.8	3.5	0.0	2.0	8.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	0.0	17.3	23.9	0.0	35.0	44.4	0.0	34.3	51.4	0.0	25.2
LnGrp LOS	D	A	B	C	A	C	D	A	C	D	A	C
Approach Vol, veh/h		554			790			262				359
Approach Delay, s/veh		18.2			34.5			40.4				48.7
Approach LOS		B			C			D				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.3	17.0		45.1	14.3	25.0		45.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	13.0		42.0	15.0	18.0		42.0				
Max Q Clear Time (g_c+I1), s	16.9	6.8		39.1	9.3	3.5		36.3				
Green Ext Time (p_c), s	0.3	0.2		1.0	0.2	0.1		2.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.3								
HCM 6th LOS				C								

# HCM 6th Signalized Intersection Summary

## 233: Lakeview Dr & Logan St

Future PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	483	5	34	398	294	144	49	48	296	10	24
Future Volume (veh/h)	22	483	5	34	398	294	144	49	48	296	10	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	24	525	5	37	433	320	157	53	52	322	11	26
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	134	872	8	315	471	348	194	122	120	361	116	274
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.11	0.14	0.14	0.20	0.24	0.24
Sat Flow, veh/h	705	1835	17	867	991	733	1767	860	844	1767	490	1157
Grp Volume(v), veh/h	24	0	530	37	0	753	157	0	105	322	0	37
Grp Sat Flow(s),veh/h/ln	705	0	1852	867	0	1724	1767	0	1704	1767	0	1647
Q Serve(g_s), s	2.8	0.0	17.7	2.8	0.0	34.3	7.3	0.0	4.8	14.9	0.0	1.5
Cycle Q Clear(g_c), s	37.1	0.0	17.7	20.5	0.0	34.3	7.3	0.0	4.8	14.9	0.0	1.5
Prop In Lane	1.00		0.01	1.00		0.42	1.00		0.50	1.00		0.70
Lane Grp Cap(c), veh/h	134	0	881	315	0	820	194	0	242	361	0	390
V/C Ratio(X)	0.18	0.00	0.60	0.12	0.00	0.92	0.81	0.00	0.43	0.89	0.00	0.09
Avail Cap(c_a), veh/h	149	0	922	335	0	858	314	0	263	419	0	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	16.3	23.8	0.0	20.6	36.7	0.0	33.1	32.6	0.0	25.1
Incr Delay (d2), s/veh	0.6	0.0	1.0	0.2	0.0	14.4	7.8	0.0	1.2	18.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	7.2	0.6	0.0	15.8	3.5	0.0	2.0	8.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	0.0	17.3	23.9	0.0	35.0	44.4	0.0	34.3	51.4	0.0	25.2
LnGrp LOS	D	A	B	C	A	C	D	A	C	D	A	C
Approach Vol, veh/h		554			790			262			359	
Approach Delay, s/veh		18.2			34.5			40.4			48.7	
Approach LOS		B			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.3	17.0		45.1	14.3	25.0		45.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	13.0		42.0	15.0	18.0		42.0				
Max Q Clear Time (g_c+I1), s	16.9	6.8		39.1	9.3	3.5		36.3				
Green Ext Time (p_c), s	0.3	0.2		1.0	0.2	0.1		2.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
234: Cicero Rd & Logan St

Existing AM Peak  
12/11/2023



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	98	371	14	84	193	217	389	486	60	0	481	219
Future Volume (veh/h)	98	371	14	84	193	217	389	486	60	0	481	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	107	403	15	91	210	236	423	528	65	0	523	238
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	352	434	16	239	463	392	421	847	104	0	536	455
Arrive On Green	0.07	0.24	0.24	0.08	0.25	0.25	0.19	0.52	0.52	0.00	0.29	0.29
Sat Flow, veh/h	1767	1777	66	1767	1856	1572	1767	1620	199	0	1856	1572
Grp Volume(v), veh/h	107	0	418	91	210	236	423	0	593	0	523	238
Grp Sat Flow(s),veh/h/ln	1767	0	1844	1767	1856	1572	1767	0	1820	0	1856	1572
Q Serve(g_s), s	4.0	0.0	19.9	3.3	8.6	11.9	17.0	0.0	20.8	0.0	25.1	11.4
Cycle Q Clear(g_c), s	4.0	0.0	19.9	3.3	8.6	11.9	17.0	0.0	20.8	0.0	25.1	11.4
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.11	0.00		1.00
Lane Grp Cap(c), veh/h	352	0	450	239	463	392	421	0	951	0	536	455
V/C Ratio(X)	0.30	0.00	0.93	0.38	0.45	0.60	1.00	0.00	0.62	0.00	0.98	0.52
Avail Cap(c_a), veh/h	361	0	451	239	463	392	421	0	951	0	536	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	0.0	33.2	24.2	28.6	29.8	25.4	0.0	15.2	0.0	31.7	26.8
Incr Delay (d2), s/veh	0.5	0.0	25.7	1.0	0.7	2.6	45.1	0.0	1.3	0.0	32.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	11.8	1.4	3.9	10.6	12.0	0.0	8.3	0.0	15.7	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	58.9	25.2	29.3	32.4	70.5	0.0	16.5	0.0	64.1	27.9
LnGrp LOS	C	A	E	C	C	C	F	A	B	A	E	C
Approach Vol, veh/h		525			537			1016			761	
Approach Delay, s/veh		51.7			30.0			39.0			52.8	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	27.0		52.0	10.5	27.4	21.0	31.0				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	22.0			47.0	7.0	22.0	17.0	26.0				
Max Q Clear Time (g_c+1), s	21.9			22.8	6.0	13.9	19.0	27.1				
Green Ext Time (p_c), s	0.0	0.0		4.3	0.0	1.3	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
234: Cicero Rd & Logan St

Existing PM Peak  
12/11/2023



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	98	371	14	84	193	217	389	486	60	0	481	219
Future Volume (veh/h)	98	371	14	84	193	217	389	486	60	0	481	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	107	403	15	91	210	236	423	528	65	0	523	238
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	352	434	16	239	463	392	421	847	104	0	536	455
Arrive On Green	0.07	0.24	0.24	0.08	0.25	0.25	0.19	0.52	0.52	0.00	0.29	0.29
Sat Flow, veh/h	1767	1777	66	1767	1856	1572	1767	1620	199	0	1856	1572
Grp Volume(v), veh/h	107	0	418	91	210	236	423	0	593	0	523	238
Grp Sat Flow(s),veh/h/ln	1767	0	1844	1767	1856	1572	1767	0	1820	0	1856	1572
Q Serve(g_s), s	4.0	0.0	19.9	3.3	8.6	11.9	17.0	0.0	20.8	0.0	25.1	11.4
Cycle Q Clear(g_c), s	4.0	0.0	19.9	3.3	8.6	11.9	17.0	0.0	20.8	0.0	25.1	11.4
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.11	0.00		1.00
Lane Grp Cap(c), veh/h	352	0	450	239	463	392	421	0	951	0	536	455
V/C Ratio(X)	0.30	0.00	0.93	0.38	0.45	0.60	1.00	0.00	0.62	0.00	0.98	0.52
Avail Cap(c_a), veh/h	361	0	451	239	463	392	421	0	951	0	536	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	0.0	33.2	24.2	28.6	29.8	25.4	0.0	15.2	0.0	31.7	26.8
Incr Delay (d2), s/veh	0.5	0.0	25.7	1.0	0.7	2.6	45.1	0.0	1.3	0.0	32.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	11.8	1.4	3.9	10.6	12.0	0.0	8.3	0.0	15.7	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	58.9	25.2	29.3	32.4	70.5	0.0	16.5	0.0	64.1	27.9
LnGrp LOS	C	A	E	C	C	C	F	A	B	A	E	C
Approach Vol, veh/h	525		537		1016		761					
Approach Delay, s/veh	51.7		30.0		39.0		52.8					
Approach LOS	D		C		D		D					
Timer - Assigned Phs	1	2	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	1.0	27.0	52.0	10.5	27.4	21.0	31.0					
Change Period (Y+Rc), s	4.0	5.0	5.0	4.0	5.0	4.0	5.0					
Max Green Setting (Gmax), s	22.0		47.0	7.0	22.0	17.0	26.0					
Max Q Clear Time (g_c+1), s	21.9		22.8	6.0	13.9	19.0	27.1					
Green Ext Time (p_c), s	0.0	0.0	4.3	0.0	1.3	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
 234: Cicero Rd & Logan St

Future AM Peak



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	98	397	14	84	213	217	389	486	60	0	625	248
Future Volume (veh/h)	98	397	14	84	213	217	389	486	60	0	625	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	107	432	15	91	232	236	423	528	65	0	679	270
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	254	407	14	140	411	348	417	1007	124	0	663	562
Arrive On Green	0.06	0.23	0.23	0.05	0.22	0.22	0.24	0.62	0.62	0.00	0.36	0.36
Sat Flow, veh/h	1767	1783	62	1767	1856	1572	1767	1620	199	0	1856	1572
Grp Volume(v), veh/h	107	0	447	91	232	236	423	0	593	0	679	270
Grp Sat Flow(s),veh/h/ln	1767	0	1844	1767	1856	1572	1767	0	1820	0	1856	1572
Q Serve(g_s), s	6.5	0.0	32.0	5.5	15.6	19.2	33.0	0.0	25.6	0.0	50.0	18.7
Cycle Q Clear(g_c), s	6.5	0.0	32.0	5.5	15.6	19.2	33.0	0.0	25.6	0.0	50.0	18.7
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.11	0.00		1.00
Lane Grp Cap(c), veh/h	254	0	422	140	411	348	417	0	1131	0	663	562
V/C Ratio(X)	0.42	0.00	1.06	0.65	0.56	0.68	1.02	0.00	0.52	0.00	1.02	0.48
Avail Cap(c_a), veh/h	254	0	422	140	411	348	417	0	1131	0	663	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	54.0	42.6	48.5	49.9	53.5	0.0	14.9	0.0	45.0	34.9
Incr Delay (d2), s/veh	1.1	0.0	60.7	10.2	1.8	5.2	48.1	0.0	0.4	0.0	41.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	21.9	2.8	7.5	16.8	20.2	0.0	10.5	0.0	30.4	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	0.0	114.7	52.8	50.3	55.1	101.6	0.0	15.3	0.0	86.4	35.6
LnGrp LOS	D	A	F	D	D	E	F	A	B	A	F	D
Approach Vol, veh/h		554			559			1016			949	
Approach Delay, s/veh		100.4			52.7			51.2			71.9	
Approach LOS		F			D			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	37.0		92.0	12.0	36.0	37.0	55.0				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	32.0			87.0	8.0	31.0	33.0	50.0				
Max Q Clear Time (g_c+1), s	34.0			27.6	8.5	21.2	35.0	52.0				
Green Ext Time (p_c), s	0.0	0.0		4.8	0.0	1.6	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				66.7								
HCM 6th LOS				E								



HCM 6th Signalized Intersection Summary  
234: Cicero Rd & Logan St























Future PM Peak



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	98	397	14	84	213	217	389	486	60	0	625	248
Future Volume (veh/h)	98	397	14	84	213	217	389	486	60	0	625	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No				No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	107	432	15	91	232	236	423	528	65	0	679	270
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	254	407	14	140	411	348	417	1007	124	0	663	562
Arrive On Green	0.06	0.23	0.23	0.05	0.22	0.22	0.24	0.62	0.62	0.00	0.36	0.36
Sat Flow, veh/h	1767	1783	62	1767	1856	1572	1767	1620	199	0	1856	1572
Grp Volume(v), veh/h	107	0	447	91	232	236	423	0	593	0	679	270
Grp Sat Flow(s),veh/h/ln	1767	0	1844	1767	1856	1572	1767	0	1820	0	1856	1572
Q Serve(g_s), s	6.5	0.0	32.0	5.5	15.6	19.2	33.0	0.0	25.6	0.0	50.0	18.7
Cycle Q Clear(g_c), s	6.5	0.0	32.0	5.5	15.6	19.2	33.0	0.0	25.6	0.0	50.0	18.7
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.11	0.00		1.00
Lane Grp Cap(c), veh/h	254	0	422	140	411	348	417	0	1131	0	663	562
V/C Ratio(X)	0.42	0.00	1.06	0.65	0.56	0.68	1.02	0.00	0.52	0.00	1.02	0.48
Avail Cap(c_a), veh/h	254	0	422	140	411	348	417	0	1131	0	663	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	54.0	42.6	48.5	49.9	53.5	0.0	14.9	0.0	45.0	34.9
Incr Delay (d2), s/veh	1.1	0.0	60.7	10.2	1.8	5.2	48.1	0.0	0.4	0.0	41.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	21.9	2.8	7.5	16.8	20.2	0.0	10.5	0.0	30.4	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	0.0	114.7	52.8	50.3	55.1	101.6	0.0	15.3	0.0	86.4	35.6
LnGrp LOS	D	A	F	D	D	E	F	A	B	A	F	D
Approach Vol, veh/h	554		559				1016			949		
Approach Delay, s/veh	100.4		52.7				51.2			71.9		
Approach LOS	F		D				D			E		
Timer - Assigned Phs	1	2	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	1.0	37.0	92.0	12.0	36.0	37.0	55.0					
Change Period (Y+Rc), s	4.0	5.0	5.0	4.0	5.0	4.0	5.0					
Max Green Setting (Gmax), s	32.0		87.0	8.0	31.0	33.0	50.0					
Max Q Clear Time (g_c+1), s	34.0		27.6	8.5	21.2	35.0	52.0					
Green Ext Time (p_c), s	0.0	0.0	4.8	0.0	1.6	0.0	0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			66.7									
HCM 6th LOS			E									























HCM 6th Signalized Intersection Summary  
 234: Cicero Rd & Logan St

Future AM Peak  
 Mitigated - Final

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	39	106	30	268	505	249	120	626	59	0	223	69
Future Volume (veh/h)	39	106	30	268	505	249	120	626	59	0	223	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	42	115	33	291	549	271	130	680	64	0	242	75
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	220	342	98	559	622	656	874	732	69	0	569	482
Arrive On Green	0.05	0.25	0.25	0.14	0.34	0.34	0.08	0.44	0.44	0.00	0.31	0.31
Sat Flow, veh/h	1767	1386	398	1767	1856	1572	3428	1670	157	0	1856	1572
Grp Volume(v), veh/h	42	0	148	291	549	271	130	0	744	0	242	75
Grp Sat Flow(s),veh/h/ln	1767	0	1784	1767	1856	1572	1714	0	1827	0	1856	1572
Q Serve(g_s), s	1.4	0.0	5.5	9.3	22.5	9.8	1.9	0.0	31.1	0.0	8.4	2.8
Cycle Q Clear(g_c), s	1.4	0.0	5.5	9.3	22.5	9.8	1.9	0.0	31.1	0.0	8.4	2.8
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.09	0.00		1.00
Lane Grp Cap(c), veh/h	220	0	440	559	622	656	874	0	801	0	569	482
V/C Ratio(X)	0.19	0.00	0.34	0.52	0.88	0.41	0.15	0.00	0.93	0.00	0.43	0.16
Avail Cap(c_a), veh/h	280	0	575	572	713	734	890	0	861	0	621	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	24.9	17.1	25.3	16.5	15.1	0.0	21.5	0.0	22.3	20.4
Incr Delay (d2), s/veh	0.4	0.0	0.4	0.8	11.4	0.4	0.1	0.0	15.6	0.0	0.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.3	3.7	11.3	0.1	0.7	0.0	15.6	0.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.2	0.0	25.4	17.9	36.7	17.0	15.2	0.0	37.0	0.0	22.8	20.5
LnGrp LOS	C		C	B	D	B	B		D		C	C
Approach Vol, veh/h		190			1111			874			317	
Approach Delay, s/veh		24.7			27.0			33.8			22.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	24.9		40.3	8.3	32.0	10.6	29.7				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	26.0		38.0	7.0	31.0	7.0	27.0				
Max Q Clear Time (g_c+I1), s	11.3	7.5		33.1	3.4	24.5	3.9	10.4				
Green Ext Time (p_c), s	0.1	0.7		2.2	0.0	2.5	0.1	1.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				28.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
 234: Cicero Rd & Logan St

Future PM Peak  
 Mitigated - Final

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	98	397	14	84	213	217	389	486	60	0	625	248
Future Volume (veh/h)	98	397	14	84	213	217	389	486	60	0	625	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	107	432	15	91	232	236	423	528	65	0	679	270
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	327	416	14	217	443	568	419	864	106	0	680	577
Arrive On Green	0.07	0.23	0.23	0.08	0.24	0.24	0.12	0.53	0.53	0.00	0.37	0.37
Sat Flow, veh/h	1767	1783	62	1767	1856	1572	3428	1620	199	0	1856	1572
Grp Volume(v), veh/h	107	0	447	91	232	236	423	0	593	0	679	270
Grp Sat Flow(s),veh/h/ln	1767	0	1844	1767	1856	1572	1714	0	1820	0	1856	1572
Q Serve(g_s), s	4.0	0.0	21.0	3.4	9.8	10.2	11.0	0.0	20.3	0.0	32.9	11.8
Cycle Q Clear(g_c), s	4.0	0.0	21.0	3.4	9.8	10.2	11.0	0.0	20.3	0.0	32.9	11.8
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.11	0.00		1.00
Lane Grp Cap(c), veh/h	327	0	430	217	443	568	419	0	970	0	680	577
V/C Ratio(X)	0.33	0.00	1.04	0.42	0.52	0.42	1.01	0.00	0.61	0.00	1.00	0.47
Avail Cap(c_a), veh/h	337	0	430	217	443	568	419	0	970	0	680	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	34.5	25.0	29.8	21.6	39.5	0.0	14.5	0.0	28.5	21.8
Incr Delay (d2), s/veh	0.6	0.0	53.8	1.3	1.1	0.5	46.4	0.0	1.1	0.0	34.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	15.6	1.4	4.4	9.7	7.2	0.0	8.0	0.0	20.3	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.2	0.0	88.3	26.2	30.9	22.1	85.9	0.0	15.7	0.0	62.4	22.4
LnGrp LOS	C		F	C	C	C	F		B		E	C
Approach Vol, veh/h		554			559			1016			949	
Approach Delay, s/veh		75.9			26.4			44.9			51.0	
Approach LOS		E			C			D			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	26.0		53.0	10.5	26.5	15.0	38.0				
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	21.0		48.0	7.0	21.0	11.0	33.0				
Max Q Clear Time (g_c+I1), s	5.4	23.0		22.3	6.0	12.2	13.0	34.9				
Green Ext Time (p_c), s	0.0	0.0		4.3	0.0	1.5	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			49.0									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary  
235: 8th St & SR 32

Existing AM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	733	571	3	834	43	301	276	10	39	260	27
Future Volume (veh/h)	10	733	571	3	834	43	301	276	10	39	260	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	797	621	3	907	47	327	300	11	42	283	29
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	905	1002	128	905	767	376	689	25	289	310	32
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.15	0.39	0.39	0.19	0.19	0.19
Sat Flow, veh/h	584	1856	1572	376	1856	1572	1767	1779	65	1060	1655	170
Grp Volume(v), veh/h	11	797	621	3	907	47	327	0	311	42	0	312
Grp Sat Flow(s),veh/h/ln	584	1856	1572	376	1856	1572	1767	0	1844	1060	0	1825
Q Serve(g_s), s	0.0	30.9	18.9	0.6	39.0	1.3	11.6	0.0	9.9	2.7	0.0	13.4
Cycle Q Clear(g_c), s	39.0	30.9	18.9	31.4	39.0	1.3	11.6	0.0	9.9	2.7	0.0	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	90	905	1002	128	905	767	376	0	714	289	0	342
V/C Ratio(X)	0.12	0.88	0.62	0.02	1.00	0.06	0.87	0.00	0.44	0.15	0.00	0.91
Avail Cap(c_a), veh/h	90	905	1002	128	905	767	376	0	714	289	0	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	18.4	8.7	32.5	20.5	10.8	21.7	0.0	18.1	27.5	0.0	31.9
Incr Delay (d2), s/veh	0.6	10.1	1.2	0.1	30.6	0.0	19.1	0.0	0.4	0.2	0.0	27.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	14.4	5.6	0.1	22.7	0.4	6.5	0.0	4.1	0.7	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	28.5	9.9	32.6	51.1	10.9	40.8	0.0	18.5	27.7	0.0	59.5
LnGrp LOS	D	C	A	C	F	B	D	A	B	C	A	E
Approach Vol, veh/h		1429			957			638			354	
Approach Delay, s/veh		20.5			49.0			29.9			55.7	
Approach LOS		C			D			C			E	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		36.0		44.0	16.0	20.0		44.0				
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s		31.0		39.0	12.0	15.0		39.0				
Max Q Clear Time (g_c+I1), s		11.9		41.0	13.6	15.4		41.0				
Green Ext Time (p_c), s		1.7		0.0	0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary  
235: 8th St & SR 32

Existing PM Peak  
12/11/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	733	571	3	834	43	301	276	10	39	260	27
Future Volume (veh/h)	10	733	571	3	834	43	301	276	10	39	260	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	797	621	3	907	47	327	300	11	42	283	29
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	905	1002	128	905	767	376	689	25	289	310	32
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.15	0.39	0.39	0.19	0.19	0.19
Sat Flow, veh/h	584	1856	1572	376	1856	1572	1767	1779	65	1060	1655	170
Grp Volume(v), veh/h	11	797	621	3	907	47	327	0	311	42	0	312
Grp Sat Flow(s),veh/h/ln	584	1856	1572	376	1856	1572	1767	0	1844	1060	0	1825
Q Serve(g_s), s	0.0	30.9	18.9	0.6	39.0	1.3	11.6	0.0	9.9	2.7	0.0	13.4
Cycle Q Clear(g_c), s	39.0	30.9	18.9	31.4	39.0	1.3	11.6	0.0	9.9	2.7	0.0	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	90	905	1002	128	905	767	376	0	714	289	0	342
V/C Ratio(X)	0.12	0.88	0.62	0.02	1.00	0.06	0.87	0.00	0.44	0.15	0.00	0.91
Avail Cap(c_a), veh/h	90	905	1002	128	905	767	376	0	714	289	0	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	18.4	8.7	32.5	20.5	10.8	21.7	0.0	18.1	27.5	0.0	31.9
Incr Delay (d2), s/veh	0.6	10.1	1.2	0.1	30.6	0.0	19.1	0.0	0.4	0.2	0.0	27.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	14.4	5.6	0.1	22.7	0.4	6.5	0.0	4.1	0.7	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	28.5	9.9	32.6	51.1	10.9	40.8	0.0	18.5	27.7	0.0	59.5
LnGrp LOS	D	C	A	C	F	B	D	A	B	C	A	E
Approach Vol, veh/h	1429			957			638			354		
Approach Delay, s/veh	20.5			49.0			29.9			55.7		
Approach LOS	C			D			C			E		
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	36.0		44.0		16.0		20.0		44.0			
Change Period (Y+Rc), s	5.0		5.0		4.0		5.0		5.0			
Max Green Setting (Gmax), s	31.0		39.0		12.0		15.0		39.0			
Max Q Clear Time (g_c+I1), s	11.9		41.0		13.6		15.4		41.0			
Green Ext Time (p_c), s	1.7		0.0		0.0		0.0		0.0			
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	34.1											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary  
 235: 8th St & SR 32

Future AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1328	571	4	1432	43	640	449	10	39	260	27
Future Volume (veh/h)	10	1328	571	4	1432	43	640	449	10	39	260	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	1443	621	4	1557	47	696	488	11	42	283	29
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	905	1002	90	905	767	376	700	16	234	310	32
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.15	0.39	0.39	0.19	0.19	0.19
Sat Flow, veh/h	314	1856	1572	201	1856	1572	1767	1807	41	892	1655	170
Grp Volume(v), veh/h	11	1443	621	4	1557	47	696	0	499	42	0	312
Grp Sat Flow(s),veh/h/ln	314	1856	1572	201	1856	1572	1767	0	1848	892	0	1825
Q Serve(g_s), s	0.0	39.0	18.9	0.0	39.0	1.3	12.0	0.0	18.1	3.3	0.0	13.4
Cycle Q Clear(g_c), s	39.0	39.0	18.9	39.0	39.0	1.3	12.0	0.0	18.1	5.4	0.0	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.09
Lane Grp Cap(c), veh/h	90	905	1002	90	905	767	376	0	716	234	0	342
V/C Ratio(X)	0.12	1.60	0.62	0.04	1.72	0.06	1.85	0.00	0.70	0.18	0.00	0.91
Avail Cap(c_a), veh/h	90	905	1002	90	905	767	376	0	716	234	0	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	20.5	8.7	40.0	20.5	10.8	23.7	0.0	20.6	29.6	0.0	31.9
Incr Delay (d2), s/veh	0.6	273.1	1.2	0.2	329.2	0.0	392.7	0.0	3.0	0.4	0.0	27.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	83.6	5.6	0.1	97.7	0.4	46.4	0.0	7.9	0.7	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	293.6	9.9	40.2	349.7	10.9	416.4	0.0	23.5	29.9	0.0	59.5
LnGrp LOS	D	F	A	D	F	B	F	A	C	C	A	E
Approach Vol, veh/h	2075			1608			1195			354		
Approach Delay, s/veh	207.3			339.1			252.4			56.0		
Approach LOS	F			F			F			E		
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	36.0		44.0		16.0		20.0		44.0			
Change Period (Y+Rc), s	5.0		5.0		4.0		5.0		5.0			
Max Green Setting (Gmax), s	31.0		39.0		12.0		15.0		39.0			
Max Q Clear Time (g_c+I1), s	20.1		41.0		14.0		15.4		41.0			
Green Ext Time (p_c), s	2.4		0.0		0.0		0.0		0.0			

Intersection Summary

HCM 6th Ctrl Delay	247.9
HCM 6th LOS	F

# HCM 6th Signalized Intersection Summary

## 235: 8th St & SR 32

Future PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷		↶	↷	
Traffic Volume (veh/h)	10	1328	571	4	1432	43	640	449	10	39	260	27
Future Volume (veh/h)	10	1328	571	4	1432	43	640	449	10	39	260	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	1443	621	4	1557	47	696	488	11	42	283	29
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	905	1002	90	905	767	376	700	16	234	310	32
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.15	0.39	0.39	0.19	0.19	0.19
Sat Flow, veh/h	314	1856	1572	201	1856	1572	1767	1807	41	892	1655	170
Grp Volume(v), veh/h	11	1443	621	4	1557	47	696	0	499	42	0	312
Grp Sat Flow(s),veh/h/ln	314	1856	1572	201	1856	1572	1767	0	1848	892	0	1825
Q Serve(g_s), s	0.0	39.0	18.9	0.0	39.0	1.3	12.0	0.0	18.1	3.3	0.0	13.4
Cycle Q Clear(g_c), s	39.0	39.0	18.9	39.0	39.0	1.3	12.0	0.0	18.1	5.4	0.0	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.09
Lane Grp Cap(c), veh/h	90	905	1002	90	905	767	376	0	716	234	0	342
V/C Ratio(X)	0.12	1.60	0.62	0.04	1.72	0.06	1.85	0.00	0.70	0.18	0.00	0.91
Avail Cap(c_a), veh/h	90	905	1002	90	905	767	376	0	716	234	0	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	20.5	8.7	40.0	20.5	10.8	23.7	0.0	20.6	29.6	0.0	31.9
Incr Delay (d2), s/veh	0.6	273.1	1.2	0.2	329.2	0.0	392.7	0.0	3.0	0.4	0.0	27.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	83.6	5.6	0.1	97.7	0.4	46.4	0.0	7.9	0.7	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	293.6	9.9	40.2	349.7	10.9	416.4	0.0	23.5	29.9	0.0	59.5
LnGrp LOS	D	F	A	D	F	B	F	A	C	C	A	E
Approach Vol, veh/h		2075			1608			1195			354	
Approach Delay, s/veh		207.3			339.1			252.4			56.0	
Approach LOS		F			F			F			E	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		36.0		44.0	16.0	20.0		44.0				
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s		31.0		39.0	12.0	15.0		39.0				
Max Q Clear Time (g_c+I1), s		20.1		41.0	14.0	15.4		41.0				
Green Ext Time (p_c), s		2.4		0.0	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												247.9
HCM 6th LOS												F

HCM 6th Signalized Intersection Summary  
 235: 8th St & SR 32

Future AM Peak  
 Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	850	437	6	993	24	203	166	3	207	361	30
Future Volume (veh/h)	7	850	437	6	993	24	203	166	3	207	361	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	8	924	475	7	1079	26	221	180	3	225	392	33
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	165	1249	749	178	1249	751	418	458	8	550	457	39
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.12	0.25	0.25	0.12	0.27	0.27
Sat Flow, veh/h	506	3526	1572	382	3526	1572	3428	1820	30	1767	1688	142
Grp Volume(v), veh/h	8	924	475	7	1079	26	221	0	183	225	0	425
Grp Sat Flow(s),veh/h/ln	506	1763	1572	382	1763	1572	1714	0	1850	1767	0	1830
Q Serve(g_s), s	0.8	12.7	12.6	0.9	15.8	0.5	3.4	0.0	4.6	5.1	0.0	12.2
Cycle Q Clear(g_c), s	16.6	12.7	12.6	13.6	15.8	0.5	3.4	0.0	4.6	5.1	0.0	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	165	1249	749	178	1249	751	418	0	466	550	0	496
V/C Ratio(X)	0.05	0.74	0.63	0.04	0.86	0.03	0.53	0.00	0.39	0.41	0.00	0.86
Avail Cap(c_a), veh/h	168	1272	759	180	1272	761	532	0	601	555	0	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	15.7	10.9	21.6	16.6	7.7	22.8	0.0	17.2	12.6	0.0	19.2
Incr Delay (d2), s/veh	0.1	2.3	1.7	0.1	6.3	0.0	1.0	0.0	0.5	0.5	0.0	11.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.8	3.9	0.1	6.6	0.1	1.3	0.0	1.8	1.8	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.5	17.9	12.6	21.7	23.0	7.7	23.9	0.0	17.8	13.1	0.0	30.2
LnGrp LOS	C	B	B	C	C	A	C		B	B		C
Approach Vol, veh/h	1407			1112			404			650		
Approach Delay, s/veh	16.2			22.6			21.1			24.3		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	1.8	19.0	24.6		10.8	20.0	24.6					
Change Period (Y+Rc), s	5.0	5.0	5.0		4.0	5.0	5.0					
Max Green Setting (Gmax), s	18.0		20.0		8.6	17.4	20.0					
Max Q Clear Time (g_c+1), s	6.6		18.6		5.4	14.2	17.8					
Green Ext Time (p_c), s	0.0	0.7	1.0		0.2	0.8	1.5					

Intersection Summary

HCM 6th Ctrl Delay, s/veh	20.2
HCM 6th LOS	C



HCM 6th Signalized Intersection Summary  
235: 8th St & SR 32

Future PM Peak  
Mitigated - Final



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1328	571	4	1432	43	640	449	10	39	260	27
Future Volume (veh/h)	10	1328	571	4	1432	43	640	449	10	39	260	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	1443	621	4	1557	47	696	488	11	42	283	29
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	88	1606	1055	96	1606	796	739	591	13	239	287	29
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.22	0.33	0.33	0.05	0.17	0.17
Sat Flow, veh/h	314	3526	1572	201	3526	1572	3428	1807	41	1767	1655	170
Grp Volume(v), veh/h	11	1443	621	4	1557	47	696	0	499	42	0	312
Grp Sat Flow(s),veh/h/ln	314	1763	1572	201	1763	1572	1714	0	1848	1767	0	1825
Q Serve(g_s), s	2.2	34.0	19.3	1.7	38.8	1.4	18.0	0.0	22.4	1.7	0.0	15.3
Cycle Q Clear(g_c), s	41.0	34.0	19.3	35.6	38.8	1.4	18.0	0.0	22.4	1.7	0.0	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.09
Lane Grp Cap(c), veh/h	88	1606	1055	96	1606	796	739	0	605	239	0	316
V/C Ratio(X)	0.13	0.90	0.59	0.04	0.97	0.06	0.94	0.00	0.83	0.18	0.00	0.99
Avail Cap(c_a), veh/h	88	1606	1055	96	1606	796	739	0	605	287	0	316
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.2	22.6	8.0	39.0	23.9	11.3	34.7	0.0	27.9	28.2	0.0	37.1
Incr Delay (d2), s/veh	0.6	7.2	0.9	0.2	15.8	0.0	20.2	0.0	9.1	0.3	0.0	46.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	14.7	5.7	0.1	18.5	0.5	9.4	0.0	11.1	0.7	0.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.8	29.8	8.9	39.2	39.7	11.3	55.0	0.0	37.0	28.5	0.0	83.8
LnGrp LOS	D	C	A	D	D	B	D		D	C		F
Approach Vol, veh/h		2075			1608			1195				354
Approach Delay, s/veh		23.6			38.8			47.5				77.3
Approach LOS		C			D			D				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	34.4		46.0	23.4	20.6		46.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	27.0			41.0	19.4	15.6		41.0				
Max Q Clear Time (g_c+13), s	24.4			43.0	20.0	17.3		40.8				
Green Ext Time (p_c), s	0.0	0.8		0.0	0.0	0.0		0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh												37.4
HCM 6th LOS												D

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	36	0	0	24	1	567	2	39	866	0
Future Vol, veh/h	5	0	36	0	0	24	1	567	2	39	866	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	0	39	0	0	26	1	616	2	42	941	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1335	1645	941	1664	1644	309	941	0	0	618	0	0
Stage 1	1025	1025	-	619	619	-	-	-	-	-	-	-
Stage 2	310	620	-	1045	1025	-	-	-	-	-	-	-
Critical Hdwy	7.345	6.545	6.245	7.345	6.545	6.945	4.145	-	-	4.145	-	-
Critical Hdwy Stg 1	6.145	5.545	-	6.545	5.545	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.545	5.545	-	6.145	5.545	-	-	-	-	-	-	-
Follow-up Hdwy	3.5285	4.0285	3.3285	3.5285	4.0285	3.3285	2.2285	-	-	2.2285	-	-
Pot Cap-1 Maneuver	120	98	317	69	98	685	721	-	-	954	-	-
Stage 1	281	310	-	442	477	-	-	-	-	-	-	-
Stage 2	673	477	-	274	310	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	107	89	317	56	89	685	721	-	-	954	-	-
Mov Cap-2 Maneuver	107	89	-	56	89	-	-	-	-	-	-	-
Stage 1	280	281	-	441	476	-	-	-	-	-	-	-
Stage 2	646	476	-	218	281	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	22		10.5		0		0.4	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	721	-	-	256	685	954	-	-
HCM Lane V/C Ratio	0.002	-	-	0.174	0.038	0.044	-	-
HCM Control Delay (s)	10	0	-	22	10.5	8.9	0	-
HCM Lane LOS	B	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.1	0.1	-	-

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	36	0	0	24	1	567	2	39	866	0
Future Vol, veh/h	5	0	36	0	0	24	1	567	2	39	866	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	0	39	0	0	26	1	616	2	42	941	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1335	1645	941	1664	1644	309	941	0	0	618	0	0
Stage 1	1025	1025	-	619	619	-	-	-	-	-	-	-
Stage 2	310	620	-	1045	1025	-	-	-	-	-	-	-
Critical Hdwy	7.345	6.545	6.245	7.345	6.545	6.945	4.145	-	-	4.145	-	-
Critical Hdwy Stg 1	6.145	5.545	-	6.545	5.545	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.545	5.545	-	6.145	5.545	-	-	-	-	-	-	-
Follow-up Hdwy	3.5285	4.0285	3.3285	3.5285	4.0285	3.3285	2.2285	-	-	2.2285	-	-
Pot Cap-1 Maneuver	120	98	317	69	98	685	721	-	-	954	-	-
Stage 1	281	310	-	442	477	-	-	-	-	-	-	-
Stage 2	673	477	-	274	310	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	107	89	317	56	89	685	721	-	-	954	-	-
Mov Cap-2 Maneuver	107	89	-	56	89	-	-	-	-	-	-	-
Stage 1	280	281	-	441	476	-	-	-	-	-	-	-
Stage 2	646	476	-	218	281	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22	10.5	0	0.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	721	-	-	256	685	954	-
HCM Lane V/C Ratio	0.002	-	-	0.174	0.038	0.044	-
HCM Control Delay (s)	10	0	-	22	10.5	8.9	0
HCM Lane LOS	B	A	-	C	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.6	0.1	0.1	-

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	36	0	0	24	1	1078	2	39	867	0
Future Vol, veh/h	5	0	36	0	0	24	1	1078	2	39	867	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	0	39	0	0	26	1	1172	2	42	942	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1614	2202	942	2221	2201	587	942	0	0	1174	0	0
Stage 1	1026	1026	-	1175	1175	-	-	-	-	-	-	-
Stage 2	588	1176	-	1046	1026	-	-	-	-	-	-	-
Critical Hdwy	7.345	6.545	6.245	7.345	6.545	6.945	4.145	-	-	4.145	-	-
Critical Hdwy Stg 1	6.145	5.545	-	6.545	5.545	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.545	5.545	-	6.145	5.545	-	-	-	-	-	-	-
Follow-up Hdwy	3.5285	4.0285	3.3285	3.5285	4.0285	3.3285	2.2285	-	-	2.2285	-	-
Pot Cap-1 Maneuver	75	44	316	27	44	452	721	-	-	588	-	-
Stage 1	281	309	-	203	263	-	-	-	-	-	-	-
Stage 2	461	263	-	274	309	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	62	37	316	21	37	452	721	-	-	588	-	-
Mov Cap-2 Maneuver	62	37	-	21	37	-	-	-	-	-	-	-
Stage 1	280	263	-	202	262	-	-	-	-	-	-	-
Stage 2	433	262	-	204	263	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	26.6		13.5		0		0.5	
HCM LOS	D		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	721	-	-	211	452	588	-	-
HCM Lane V/C Ratio	0.002	-	-	0.211	0.058	0.072	-	-
HCM Control Delay (s)	10	0	-	26.6	13.5	11.6	0	-
HCM Lane LOS	B	A	-	D	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.2	0.2	-	-

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	36	0	0	24	1	1078	2	39	867	0
Future Vol, veh/h	5	0	36	0	0	24	1	1078	2	39	867	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	0	39	0	0	26	1	1172	2	42	942	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1614	2202	942	2221	2201	587	942	0	0	1174	0	0
Stage 1	1026	1026	-	1175	1175	-	-	-	-	-	-	-
Stage 2	588	1176	-	1046	1026	-	-	-	-	-	-	-
Critical Hdwy	7.345	6.545	6.245	7.345	6.545	6.945	4.145	-	-	4.145	-	-
Critical Hdwy Stg 1	6.145	5.545	-	6.545	5.545	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.545	5.545	-	6.145	5.545	-	-	-	-	-	-	-
Follow-up Hdwy	3.5285	4.0285	3.3285	3.5285	4.0285	3.3285	2.2285	-	-	2.2285	-	-
Pot Cap-1 Maneuver	75	44	316	27	44	452	721	-	-	588	-	-
Stage 1	281	309	-	203	263	-	-	-	-	-	-	-
Stage 2	461	263	-	274	309	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	62	37	316	21	37	452	721	-	-	588	-	-
Mov Cap-2 Maneuver	62	37	-	21	37	-	-	-	-	-	-	-
Stage 1	280	263	-	202	262	-	-	-	-	-	-	-
Stage 2	433	262	-	204	263	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	26.6		13.5		0		0.5	
HCM LOS	D		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	721	-	-	211	452	588	-	-
HCM Lane V/C Ratio	0.002	-	-	0.211	0.058	0.072	-	-
HCM Control Delay (s)	10	0	-	26.6	13.5	11.6	0	-
HCM Lane LOS	B	A	-	D	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.2	0.2	-	-

Intersection							
Intersection Delay, s/veh	0.0						
Intersection LOS	-						
Approach	EB		NB		SB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	2		2		2		
Adj Approach Flow, veh/h	0		0		0		
Demand Flow Rate, veh/h	0		0		0		
Vehicles Circulating, veh/h	0		0		0		
Vehicles Exiting, veh/h	0		0		0		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	0.0		0.0		0.0		
Approach LOS	-		-		-		
Lane	Left	Right	Left	Right	Left	Right	
Designated Moves	LTR	R	L	LTR	LT	TR	
Assumed Moves	LTR	R	L	LTR	LT	TR	
RT Channelized							
Lane Util	0.500	0.500	0.500	0.500	0.500	0.500	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	0	0	0	0	0	0	
Cap Entry Lane, veh/h	1350	1420	1350	1420	1350	1420	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000	
Flow Entry, veh/h	0	0	0	0	0	0	
Cap Entry, veh/h	1350	1420	1350	1420	1350	1420	
V/C Ratio	0.000	0.000	0.000	0.000	0.000	0.000	
Control Delay, s/veh	2.7	2.5	2.7	2.5	2.7	2.5	
LOS	A	A	A	A	A	A	
95th %tile Queue, veh	0	0	0	0	0	0	

Intersection							
Intersection Delay, s/veh	0.0						
Intersection LOS	-						
Approach	EB		NB		SB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	2		2		2		
Adj Approach Flow, veh/h	0		0		0		
Demand Flow Rate, veh/h	0		0		0		
Vehicles Circulating, veh/h	0		0		0		
Vehicles Exiting, veh/h	0		0		0		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	0.0		0.0		0.0		
Approach LOS	-		-		-		
Lane	Left	Right	Left	Right	Left	Right	
Designated Moves	LTR	R	L	LTR	LT	TR	
Assumed Moves	LTR	R	L	LTR	LT	TR	
RT Channelized							
Lane Util	0.500	0.500	0.500	0.500	0.500	0.500	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
Entry Flow, veh/h	0	0	0	0	0	0	
Cap Entry Lane, veh/h	1350	1420	1350	1420	1350	1420	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000	
Flow Entry, veh/h	0	0	0	0	0	0	
Cap Entry, veh/h	1350	1420	1350	1420	1350	1420	
V/C Ratio	0.000	0.000	0.000	0.000	0.000	0.000	
Control Delay, s/veh	2.7	2.5	2.7	2.5	2.7	2.5	
LOS	A	A	A	A	A	A	
95th %tile Queue, veh	0	0	0	0	0	0	

Intersection						
Intersection Delay, s/veh	26.9					
Intersection LOS	D					
Approach	EB		NB		SB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	1024		2032		963	
Demand Flow Rate, veh/h	1055		2093		992	
Vehicles Circulating, veh/h	991		0		924	
Vehicles Exiting, veh/h	925		2046		1169	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	46.6		15.0		30.9	
Approach LOS	E		B		D	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	R	L	LTR	LT	TR
Assumed Moves	LTR	R	L	TR	LT	TR
RT Channelized						
Lane Util	0.470	0.530	0.441	0.559	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	496	559	924	1169	466	526
Cap Entry Lane, veh/h	542	612	1350	1420	577	647
Entry HV Adj Factor	0.970	0.971	0.971	0.971	0.971	0.970
Flow Entry, veh/h	481	543	897	1135	453	510
Cap Entry, veh/h	526	594	1310	1379	560	628
V/C Ratio	0.914	0.914	0.685	0.823	0.808	0.812
Control Delay, s/veh	48.6	44.8	11.9	17.4	32.1	29.9
LOS	E	E	B	C	D	D
95th %tile Queue, veh	11	11	6	10	8	8



Intersection						
Intersection Delay, s/veh	26.9					
Intersection LOS	D					
Approach	EB		NB		SB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	1024		2032		963	
Demand Flow Rate, veh/h	1055		2093		992	
Vehicles Circulating, veh/h	991		0		924	
Vehicles Exiting, veh/h	925		2046		1169	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	46.6		15.0		30.9	
Approach LOS	E		B		D	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	R	L	LTR	LT	TR
Assumed Moves	LTR	R	L	TR	LT	TR
RT Channelized						
Lane Util	0.470	0.530	0.441	0.559	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	496	559	924	1169	466	526
Cap Entry Lane, veh/h	542	612	1350	1420	577	647
Entry HV Adj Factor	0.970	0.971	0.971	0.971	0.971	0.970
Flow Entry, veh/h	481	543	897	1135	453	510
Cap Entry, veh/h	526	594	1310	1379	560	628
V/C Ratio	0.914	0.914	0.685	0.823	0.808	0.812
Control Delay, s/veh	48.6	44.8	11.9	17.4	32.1	29.9
LOS	E	E	B	C	D	D
95th %tile Queue, veh	11	11	6	10	8	8

Intersection							
Intersection Delay, s/veh	6.1						
Intersection LOS	A						
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	5	182		422		962	
Demand Flow Rate, veh/h	5	187		434		991	
Vehicles Circulating, veh/h	990	424		348		15	
Vehicles Exiting, veh/h	16	358		647		596	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	6.1	5.3		5.7		6.5	
Approach LOS	A	A		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	L	TR
Assumed Moves	LTR	LT	R	LT	TR	L	TR
RT Channelized							
Lane Util	1.000	0.080	0.920	0.470	0.530	0.346	0.654
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	5	15	172	204	230	343	648
Cap Entry Lane, veh/h	612	914	990	980	1056	1331	1402
Entry HV Adj Factor	0.977	0.979	0.971	0.972	0.972	0.971	0.971
Flow Entry, veh/h	5	15	167	198	223	333	629
Cap Entry, veh/h	598	894	962	952	1027	1293	1362
V/C Ratio	0.008	0.016	0.174	0.208	0.218	0.258	0.462
Control Delay, s/veh	6.1	4.2	5.4	5.8	5.6	5.0	7.2
LOS	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	1	1	1	3

Intersection							
Intersection Delay, s/veh	6.1						
Intersection LOS	A						
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	5	182		422		962	
Demand Flow Rate, veh/h	5	187		434		991	
Vehicles Circulating, veh/h	990	424		348		15	
Vehicles Exiting, veh/h	16	358		647		596	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	6.1	5.3		5.7		6.5	
Approach LOS	A	A		A		A	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	L	TR
Assumed Moves	LTR	LT	R	LT	TR	L	TR
RT Channelized							
Lane Util	1.000	0.080	0.920	0.470	0.530	0.346	0.654
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	5	15	172	204	230	343	648
Cap Entry Lane, veh/h	612	914	990	980	1056	1331	1402
Entry HV Adj Factor	0.977	0.979	0.971	0.972	0.972	0.971	0.971
Flow Entry, veh/h	5	15	167	198	223	333	629
Cap Entry, veh/h	598	894	962	952	1027	1293	1362
V/C Ratio	0.008	0.016	0.174	0.208	0.218	0.258	0.462
Control Delay, s/veh	6.1	4.2	5.4	5.8	5.6	5.0	7.2
LOS	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	1	1	1	3

Intersection							
Intersection Delay, s/veh99.4							
Intersection LOS F							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	5	895		1161		1984	
Demand Flow Rate, veh/h	5	921		1195		2043	
Vehicles Circulating, veh/h	2042	1186		840		15	
Vehicles Exiting, veh/h	16	850		1207		2092	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	15.1	359.1		41.4		16.4	
Approach LOS	C	F		E		C	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	L	TR
Assumed Moves	LTR	LT	R	LT	TR	L	TR
RT Channelized							
Lane Util	1.000	0.016	0.984	0.470	0.530	0.409	0.591
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	5	15	906	562	633	835	1208
Cap Entry Lane, veh/h	250	453	518	623	695	1331	1402
Entry HV Adj Factor	0.977	0.979	0.971	0.971	0.972	0.971	0.971
Flow Entry, veh/h	5	15	880	545	615	811	1173
Cap Entry, veh/h	244	444	503	605	676	1293	1361
V/C Ratio	0.020	0.033	1.749	0.902	0.910	0.627	0.862
Control Delay, s/veh	15.1	8.6	365.0	42.2	40.6	10.5	20.5
LOS	C	A	F	E	E	B	C
95th %tile Queue, veh	0	0	53	11	12	5	12

Intersection							
Intersection Delay, s/veh99.4							
Intersection LOS F							
Approach	EB	WB		NB		SB	
Entry Lanes	1	2		2		2	
Conflicting Circle Lanes	2	2		2		2	
Adj Approach Flow, veh/h	5	895		1161		1984	
Demand Flow Rate, veh/h	5	921		1195		2043	
Vehicles Circulating, veh/h	2042	1186		840		15	
Vehicles Exiting, veh/h	16	850		1207		2092	
Ped Vol Crossing Leg, #/h	0	0		0		0	
Ped Cap Adj	1.000	1.000		1.000		1.000	
Approach Delay, s/veh	15.1	359.1		41.4		16.4	
Approach LOS	C	F		E		C	
Lane	Left	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	LT	R	LT	TR	L	TR
Assumed Moves	LTR	LT	R	LT	TR	L	TR
RT Channelized							
Lane Util	1.000	0.016	0.984	0.470	0.530	0.409	0.591
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	5	15	906	562	633	835	1208
Cap Entry Lane, veh/h	250	453	518	623	695	1331	1402
Entry HV Adj Factor	0.977	0.979	0.971	0.971	0.972	0.971	0.971
Flow Entry, veh/h	5	15	880	545	615	811	1173
Cap Entry, veh/h	244	444	503	605	676	1293	1361
V/C Ratio	0.020	0.033	1.749	0.902	0.910	0.627	0.862
Control Delay, s/veh	15.1	8.6	365.0	42.2	40.6	10.5	20.5
LOS	C	A	F	E	E	B	C
95th %tile Queue, veh	0	0	53	11	12	5	12

Intersection						
Int Delay, s/veh	6.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		T		T	T
Traffic Vol, veh/h	10	205	164	14	412	156
Future Vol, veh/h	10	205	164	14	412	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	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	223	178	15	448	170

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1252	186	0	0	193
Stage 1	186	-	-	-	-
Stage 2	1066	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	189	854	-	-	1374
Stage 1	843	-	-	-	-
Stage 2	329	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	127	854	-	-	1374
Mov Cap-2 Maneuver	127	-	-	-	-
Stage 1	843	-	-	-	-
Stage 2	222	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	6.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	674	1374
HCM Lane V/C Ratio	-	-	0.347	0.326
HCM Control Delay (s)	-	-	13.1	8.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.5	1.4

Intersection						
Int Delay, s/veh	6.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		T		T	T
Traffic Vol, veh/h	10	205	164	14	412	156
Future Vol, veh/h	10	205	164	14	412	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	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	223	178	15	448	170

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1252	186	0	0	193
Stage 1	186	-	-	-	-
Stage 2	1066	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	189	854	-	-	1374
Stage 1	843	-	-	-	-
Stage 2	329	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	127	854	-	-	1374
Mov Cap-2 Maneuver	127	-	-	-	-
Stage 1	843	-	-	-	-
Stage 2	222	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	6.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	674	1374
HCM Lane V/C Ratio	-	-	0.347	0.326
HCM Control Delay (s)	-	-	13.1	8.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.5	1.4

Intersection						
Int Delay, s/veh	227					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	T
Traffic Vol, veh/h	10	885	164	14	913	156
Future Vol, veh/h	10	885	164	14	913	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	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	962	178	15	992	170

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2340	186	0	0	193
Stage 1	186	-	-	-	-
Stage 2	2154	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	40	~ 854	-	-	1374
Stage 1	843	-	-	-	-
Stage 2	95	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	11	~ 854	-	-	1374
Mov Cap-2 Maneuver	11	-	-	-	-
Stage 1	843	-	-	-	-
Stage 2	26	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	528.9	0	12
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	460	1374
HCM Lane V/C Ratio	-	-	2.115	0.722
HCM Control Delay (s)	-	-	528.9	14.1
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	69.4	6.8

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	227					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		W	T
Traffic Vol, veh/h	10	885	164	14	913	156
Future Vol, veh/h	10	885	164	14	913	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	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	11	962	178	15	992	170

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2340	186	0	0	193
Stage 1	186	-	-	-	-
Stage 2	2154	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227
Pot Cap-1 Maneuver	40	~ 854	-	-	1374
Stage 1	843	-	-	-	-
Stage 2	95	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	11	~ 854	-	-	1374
Mov Cap-2 Maneuver	11	-	-	-	-
Stage 1	843	-	-	-	-
Stage 2	26	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	528.9	0	12
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	460	1374
HCM Lane V/C Ratio	-	-	2.115	0.722
HCM Control Delay (s)	-	-	528.9	14.1
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	69.4	6.8

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection			
Intersection Delay, s/veh 28.1			
Intersection LOS D			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	213	136	1274
Demand Flow Rate, veh/h	219	140	1312
Vehicles Circulating, veh/h	136	1046	8
Vehicles Exiting, veh/h	1050	274	347
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.7	12.5	33.6
Approach LOS	A	B	D
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	219	140	1312
Cap Entry Lane, veh/h	1201	475	1369
Entry HV Adj Factor	0.973	0.972	0.971
Flow Entry, veh/h	213	136	1274
Cap Entry, veh/h	1168	461	1329
V/C Ratio	0.182	0.295	0.959
Control Delay, s/veh	4.7	12.5	33.6
LOS	A	B	D
95th %tile Queue, veh	1	1	19

Intersection			
Intersection Delay, s/veh 22.8			
Intersection LOS C			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	973	193	1162
Demand Flow Rate, veh/h	1002	198	1197
Vehicles Circulating, veh/h	183	1022	11
Vehicles Exiting, veh/h	1037	186	1174
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	25.0	14.8	22.3
Approach LOS	C	B	C
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	1002	198	1197
Cap Entry Lane, veh/h	1145	487	1364
Entry HV Adj Factor	0.971	0.973	0.971
Flow Entry, veh/h	973	193	1162
Cap Entry, veh/h	1112	473	1324
V/C Ratio	0.875	0.407	0.877
Control Delay, s/veh	25.0	14.8	22.3
LOS	C	B	C
95th %tile Queue, veh	12	2	13