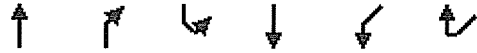

Unsignalized Analysis

- 2012 Existing
- 2035 No Build
- 2035 Build Alternatives



HCM Unsignalized Intersection Capacity Analysis
 4: McGregor Street & Exit 6 SB On Ramp

Synchro 6 Report
 6/21/2013



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↕			↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	465	385	0	955	0	0
Peak Hour Factor	0.93	0.93	0.89	0.89	0.92	0.92
Hourly flow rate (vph)	500	414	0	1073	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			914	1780	707	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			914	1780	707	
tC, single (s)			4.1	6.4	6.2	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			100	100	100	
cM capacity (veh/h)			750	90	435	

Direction, Lane #	NB 1	SB 1
Volume Total	914	1073
Volume Left	0	0
Volume Right	414	0
cSH	1700	1700
Volume to Capacity	0.54	0.63
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 15: Exit 6 SB Off Ramp & Eddy Road



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑			↑
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	240	415	445	0	0	715
Peak Hour Factor	0.80	0.80	0.87	0.87	0.81	0.81
Hourly flow rate (vph)	300	519	511	0	0	883
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1394	511			511	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1394	511			511	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	8			100	
cM capacity (veh/h)	158	566			1059	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	300	519	511	883
Volume Left	300	0	0	0
Volume Right	0	519	0	0
cSH	158	566	1700	1700
Volume to Capacity	1.90	0.92	0.30	0.52
Queue Length 95th (ft)	569	282	0	0
Control Delay (s)	478.3	47.0	0.0	0.0
Lane LOS	F	E		
Approach Delay (s)	205.0		0.0	0.0
Approach LOS	F			

Intersection Summary			
Average Delay	75.9		
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

HCM Unsignalized Intersection Capacity Analysis
 23: Eddy Road & Exit 6 SB On Ramp

Synchro 6 Report
 6/21/2013



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations				↕↕		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	720	1600	0	0
Peak Hour Factor	0.92	0.92	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	0	0	774	1720	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)				368		
pX, platoon unblocked						
vC, conflicting volume			0	2409	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	2409	0	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			52	100	100	
cM capacity (veh/h)			1629	14	1084	

Direction, Lane #	SB 1	SB 2
Volume Total	1348	1147
Volume Left	774	0
Volume Right	0	0
cSH	1629	1700
Volume to Capacity	0.48	0.67
Queue Length 95th (ft)	66	0
Control Delay (s)	8.1	0.0
Lane LOS	A	
Approach Delay (s)	4.4	
Approach LOS		

Intersection Summary			
Average Delay		4.4	
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			
Sign Control	Yield		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	955	1745	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1038	1897	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)	585					
pX, platoon unblocked						
vC, conflicting volume	1897	948			1897	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1897	948			1897	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	0			100	
cM capacity (veh/h)	61	261			311	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	1038	948	948
Volume Left	0	0	0
Volume Right	1038	0	0
cSH	261	1700	1700
Volume to Capacity	3.97	0.56	0.56
Queue Length 95th (ft)	Err	0	0
Control Delay (s)	Err	0.0	0.0
Lane LOS	F		
Approach Delay (s)	Err	0.0	
Approach LOS	F		

Intersection Summary			
Average Delay		3536.7	
Intersection Capacity Utilization		114.0%	ICU Level of Service H
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 33: Dunbarton Road & Front Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	235	0	305	5	0	5	125	85	10	5	410	30
Peak Hour Factor	0.72	0.72	0.72	0.50	0.50	0.50	0.83	0.83	0.83	0.91	0.91	0.91
Hourly flow rate (vph)	326	0	424	10	0	10	151	102	12	5	451	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	898	894	467	1311	904	108	484			114		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	898	894	467	1311	904	108	484			114		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
fF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	0	100	29	72	100	99	86			100		
cM capacity (veh/h)	229	240	596	35	238	951	1059			1475		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	750	20	265	489
Volume Left	326	10	151	5
Volume Right	424	10	12	33
cSH	351	68	1059	1475
Volume to Capacity	2.14	0.29	0.14	0.00
Queue Length 95th (ft)	1375	27	12	0
Control Delay (s)	545.5	78.8	5.7	0.1
Lane LOS	F	F	A	A
Approach Delay (s)	545.5	78.8	5.7	0.1
Approach LOS	F	F		

Intersection Summary			
Average Delay		270.5	
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 34: Goffstown Road & Coolidge Ave

Synchro 6 Report
 6/21/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑	↗		↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	885	15	60	400	20	5	0	185	5	0	0
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.59	0.59	0.59	0.25	0.25	0.25
Hourly flow rate (vph)	6	994	17	69	460	23	8	0	314	20	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									9			
Median type								None			None	
Median storage veh												
Upstream signal (ft)					313							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	483			1011			1623	1635	1003	1623	1632	471
vC1, stage 1 conf vol				0								
vC2, stage 2 conf vol				0								
vCu, unblocked vol	390			1011			1735	1749	1003	1735	1745	376
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)				3.1								
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			93			85	100	0	0	100	100
cM capacity (veh/h)	1000			1058			55	68	294	0	69	572

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1017	552	322	20
Volume Left	6	69	8	20
Volume Right	17	23	314	0
cSH	1000	1058	302	0
Volume to Capacity	0.01	0.07	1.07	Err
Queue Length 95th (ft)	0	5	308	Err
Control Delay (s)	0.2	1.8	109.6	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.2	1.8	109.6	Err
Approach LOS			F	F

Intersection Summary			
Average Delay			Err
Intersection Capacity Utilization		77.5%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 35: Amoskeag Street & Exit 6 NB On Ramp

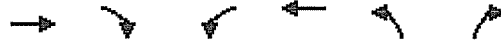


Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑↑↑			
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	1205	610	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	1310	663	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)		318	269			
pX, platoon unblocked	0.83				0.83	0.83
vC, conflicting volume	1310				1641	768
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	964				1364	312
iC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
iF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	589				115	568

Direction, Lane #	WB 1	WB 2	WB 3
Volume Total	524	524	925
Volume Left	0	0	0
Volume Right	0	0	663
cSH	1700	1700	1700
Volume to Capacity	0.31	0.31	0.54
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		46.9%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 38: Front Street & Exit 7 SB On Ramp



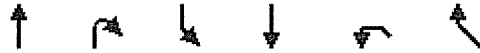
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕				↕	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	475	435	0	0	150	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.77	0.77
Hourly flow rate (vph)	516	473	0	0	195	234

Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume						
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol						
tC, single (s)						
tC, 2 stage (s)						
tF (s)						
p0 queue free %						
cM capacity (veh/h)						

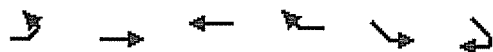
Direction, Lane #	EB 1	NB 1
Volume Total	989	429
Volume Left	0	195
Volume Right	473	234
cSH	1700	395
Volume to Capacity	0.58	1.09
Queue Length 95th (ft)	0	375
Control Delay (s)	0.0	103.1
Lane LOS		F
Approach Delay (s)	0.0	103.1
Approach LOS		F

Intersection Summary			
Average Delay		31.2	
Intersection Capacity Utilization		77.6%	ICU Level of Service
Analysis Period (min)		15	D

HCM Unsignalized Intersection Capacity Analysis
 40: Front Street & 293 Exit 7 NB Off Ramp



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑			↑		↑
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	150	0	0	910	0	545
Peak Hour Factor	0.79	0.79	0.90	0.90	0.68	0.68
Hourly flow rate (vph)	190	0	0	1011	0	801
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			190	1201	190	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			190	1201	190	
tC, single (s)			4.1	6.4	6.2	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			100	100	6	
cM capacity (veh/h)			1390	204	852	
Direction, Lane #	NB 1	SB 1	NW 1			
Volume Total	190	1011	801			
Volume Left	0	0	0			
Volume Right	0	0	801			
cSH	1700	1700	852			
Volume to Capacity	0.11	0.59	0.94			
Queue Length 95th (ft)	0	0	362			
Control Delay (s)	0.0	0.0	40.2			
Lane LOS			E			
Approach Delay (s)	0.0	0.0	40.2			
Approach LOS			E			
Intersection Summary						
Average Delay			16.1			
Intersection Capacity Utilization			51.2%	ICU Level of Service		A
Analysis Period (min)			15			



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑		↑↑		
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	1910	0	1025	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2076	0	1114	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)			198			
pX, platoon unblocked						
vC, conflicting volume	1114				1038	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1114				1038	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	623				227	1084

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	1038	1038	557	557
Volume Left	0	0	0	0
Volume Right	0	0	557	557
cSH	1700	1700	1700	1700
Volume to Capacity	0.61	0.61	0.33	0.33
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		56.1%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	15	40	260	440	870	160
Peak Hour Factor	0.84	0.84	0.73	0.73	0.83	0.83
Hourly flow rate (vph)	18	48	356	603	1048	193
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2460	1145	1241			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2460	1145	1241			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	0	80	36			
cM capacity (veh/h)	11	233	558			
Direction, Lane #						
	EB 1	NB 1	SB 1			
Volume Total	65	959	1241			
Volume Left	18	356	0			
Volume Right	48	0	193			
cSH	39	558	1700			
Volume to Capacity	1.70	0.64	0.73			
Queue Length 95th (ft)	173	112	0			
Control Delay (s)	566.6	22.0	0.0			
Lane LOS	F	C				
Approach Delay (s)	566.6	22.0	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay			25.7			
Intersection Capacity Utilization			106.4%	ICU Level of Service	G	
Analysis Period (min)			15			

Intersection Sign configuration not allowed in HCM analysis.

HCM Unsignalized Intersection Capacity Analysis
 44: Country Club Drive & Front Street



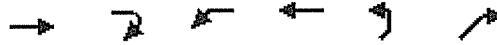
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free		Free
Grade	0%			0%		0%
Volume (veh/h)	10	105	25	430	925	5
Peak Hour Factor	0.88	0.88	0.92	0.92	0.84	0.84
Hourly flow rate (vph)	11	119	27	467	1101	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	2					
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1626	1104	1107			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1626	1104	1107			
iC, single (s)	6.4	6.2	4.1			
iC, 2 stage (s)						
iF (s)	3.5	3.3	2.2			
p0 queue free %	89	54	96			
cM capacity (veh/h)	108	257	623			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	131	495	1107			
Volume Left	11	27	0			
Volume Right	119	0	6			
cSH	281	623	1700			
Volume to Capacity	0.46	0.04	0.65			
Queue Length 95th (ft)	58	3	0			
Control Delay (s)	31.7	1.2	0.0			
Lane LOS	D	A				
Approach Delay (s)	31.7	1.2	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			2.7			
Intersection Capacity Utilization			62.2%	ICU Level of Service	B	
Analysis Period (min)			15			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖			↗		↘
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	300	55	10	35	10	15
Peak Hour Factor	0.89	0.89	0.67	0.67	0.55	0.55
Hourly flow rate (vph)	337	62	15	52	18	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			399		450	368
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			399		450	368
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		97	96
cM capacity (veh/h)			1154		563	682

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	399	67	45
Volume Left	0	15	18
Volume Right	62	0	27
cSH	1700	1154	629
Volume to Capacity	0.23	0.01	0.07
Queue Length 95th (ft)	0	1	6
Control Delay (s)	0.0	1.9	11.2
Lane LOS		A	B
Approach Delay (s)	0.0	1.9	11.2
Approach LOS			B

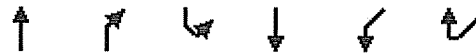
Intersection Summary			
Average Delay		1.2	
Intersection Capacity Utilization		29.1%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations			↵	↑↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	655	550	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	712	598	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)	143			444		
pX, platoon unblocked						
vC, conflicting volume			0		1723	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		1723	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			56		100	100
cM capacity (veh/h)			1622		45	1084

Direction, Lane #	WB 1	WB 2	WB 3
Volume Total	712	299	299
Volume Left	712	0	0
Volume Right	0	0	0
cSH	1622	1700	1700
Volume to Capacity	0.44	0.18	0.18
Queue Length 95th (ft)	58	0	0
Control Delay (s)	8.9	0.0	0.0
Lane LOS	A		
Approach Delay (s)	4.9		
Approach LOS			

Intersection Summary			
Average Delay		4.9	
Intersection Capacity Utilization		53.6%	ICU Level of Service A
Analysis Period (min)		15	



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations				↑	↘	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	1665	655	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1810	712	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)				170		
pX, platoon unblocked					0.72	
vC, conflicting volume			0		1810	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		2126	0
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		0	100
cM capacity (veh/h)			1623		39	1085

Direction, Lane #	SB 1	SW 1
Volume Total	1810	712
Volume Left	0	712
Volume Right	0	0
cSH	1700	39
Volume to Capacity	1.06	18.03
Queue Length 95th (ft)	0	Err
Control Delay (s)	0.0	Err
Lane LOS		F
Approach Delay (s)	0.0	Err
Approach LOS		F

Intersection Summary			
Average Delay		2823.0	
Intersection Capacity Utilization	130.6%	ICU Level of Service	H
Analysis Period (min)	15		

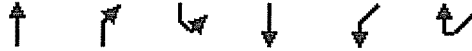
HCM Unsignalized Intersection Capacity Analysis
65: Goffstown Road & Straw Road



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	725	210	30	65	5
Peak Hour Factor	0.96	0.96	0.87	0.87	0.72	0.72
Hourly flow rate (vph)	5	755	241	34	90	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	276				1024	259
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	276				1024	259
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
iF (s)	2.2				3.5	3.3
p0 queue free %	100				65	99
cM capacity (veh/h)	1287				260	780

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	760	276	97
Volume Left	5	0	90
Volume Right	0	34	7
cSH	1287	1700	273
Volume to Capacity	0.00	0.16	0.36
Queue Length 95th (ft)	0	0	39
Control Delay (s)	0.1	0.0	25.3
Lane LOS	A		D
Approach Delay (s)	0.1	0.0	25.3
Approach LOS			D

Intersection Summary			
Average Delay		2.2	
Intersection Capacity Utilization		52.7%	ICU Level of Service A
Analysis Period (min)		15	

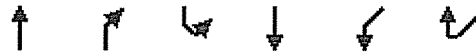


Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↓	↗				
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	790	1910	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	859	2076	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)				269		
pX, platoon unblocked						
vC, conflicting volume			2935		859	429
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			2935		859	429
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			120		296	574
Direction, Lane #	NB 1	NB 2	NB 3			
Volume Total	572	978	1384			
Volume Left	0	0	0			
Volume Right	0	692	1384			
cSH	1700	1700	1700			
Volume to Capacity	0.34	0.58	0.81			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS						
Approach Delay (s)	0.0					
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			82.2%		ICU Level of Service	E
Analysis Period (min)			15			



HCM Unsignalized Intersection Capacity Analysis
 4: McGregor Street & Exit 6 SB On Ramp

Synchro 6 Report
 6/21/2013



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↕			↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	630	335	0	735	0	0
Peak Hour Factor	0.96	0.96	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	656	349	0	790	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1005	1621	831	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1005	1621	831	
tC, single (s)			4.1	6.4	6.2	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			100	100	100	
cM capacity (veh/h)			693	113	370	

Direction, Lane #	NB 1	SB 1
Volume Total	1005	790
Volume Left	0	0
Volume Right	349	0
cSH	1700	1700
Volume to Capacity	0.59	0.46
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 15: Exit 6 SB Off Ramp & Eddy Road



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↷	↑			↑
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	200	205	625	0	0	535
Peak Hour Factor	0.87	0.87	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	230	236	658	0	0	563
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1221	658			658	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1221	658			658	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
iF (s)	3.5	3.3			2.2	
p0 queue free %	0	49			100	
cM capacity (veh/h)	200	466			935	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	230	236	658	563
Volume Left	230	0	0	0
Volume Right	0	236	0	0
cSH	200	466	1700	1700
Volume to Capacity	1.15	0.51	0.39	0.33
Queue Length 95th (ft)	284	70	0	0
Control Delay (s)	159.9	20.4	0.0	0.0
Lane LOS	F	C		
Approach Delay (s)	89.3		0.0	0.0
Approach LOS	F			

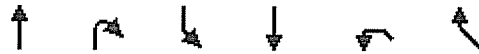
Intersection Summary			
Average Delay	24.6		
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	95	100	150	980	745	85
Peak Hour Factor	0.93	0.93	0.94	0.94	0.82	0.82
Hourly flow rate (vph)	102	108	160	1043	909	104
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2322	960	1012			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2322	960	1012			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	66	77			
cM capacity (veh/h)	32	312	689			
Direction, Lane #						
	EB 1	NB 1	SB 1			
Volume Total	210	1202	1012			
Volume Left	102	160	0			
Volume Right	108	0	104			
cSH	59	689	1700			
Volume to Capacity	3.53	0.23	0.60			
Queue Length 95th (ft)	Err	22	0			
Control Delay (s)	Err	7.7	0.0			
Lane LOS	F	A				
Approach Delay (s)	Err	7.7	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay		868.7				
Intersection Capacity Utilization		119.5%		ICU Level of Service		H
Analysis Period (min)		15				

Intersection Sign configuration not allowed in HCM analysis.

HCM Unsignalized Intersection Capacity Analysis
 23: Eddy Road & Exit 6 SB On Ramp



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations				4↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	505	995	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	567	1118	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)				362		
pX, platoon unblocked						
vC, conflicting volume			0	1694	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	1694	0	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			65	100	100	
cM capacity (veh/h)			1636	56	1091	

Direction, Lane #	SB 1	SB 2
Volume Total	940	745
Volume Left	567	0
Volume Right	0	0
cSH	1636	1700
Volume to Capacity	0.35	0.44
Queue Length 95th (ft)	39	0
Control Delay (s)	6.5	0.0
Lane LOS	A	
Approach Delay (s)	3.6	
Approach LOS		

Intersection Summary			
Average Delay		3.6	
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 25: Amoskeag Street &



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑↑			
Sign Control	Yield		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	1070	1290	0	0	0
Peak Hour Factor	0.91	0.91	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	0	1176	1358	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						591
pX, platoon unblocked						
vC, conflicting volume	1358	679			1358	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1358	679			1358	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	0			100	
cM capacity (veh/h)	141	396			502	
Direction, Lane #	WB 1	NB 1	NB 2			
Volume Total	1176	679	679			
Volume Left	0	0	0			
Volume Right	1176	0	0			
cSH	396	1700	1700			
Volume to Capacity	2.97	0.40	0.40			
Queue Length 95th (ft)	2544	0	0			
Control Delay (s)	912.2	0.0	0.0			
Lane LOS	F					
Approach Delay (s)	912.2	0.0				
Approach LOS	F					
Intersection Summary						
Average Delay			423.3			
Intersection Capacity Utilization			108.6%	ICU Level of Service	G	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 33: Dunbarton Road & Front Street

Synchro 6 Report
 6/21/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	70	0	145	0	0	5	305	145	5	0	365	90
Peak Hour Factor	0.86	0.86	0.86	0.38	0.38	0.38	0.83	0.83	0.83	0.78	0.78	0.78
Hourly flow rate (vph)	81	0	169	0	0	13	367	175	6	0	468	115
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1451	1441	526	1607	1496	178	583			181		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1451	1441	526	1607	1496	178	583			181		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	69	100	100	98	63			100		
cM capacity (veh/h)	76	84	552	42	78	870	996			1407		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	250	13	548	583
Volume Left	81	0	367	0
Volume Right	169	13	6	115
cSH	182	870	996	1407
Volume to Capacity	1.37	0.02	0.37	0.00
Queue Length 95th (ft)	371	1	43	0
Control Delay (s)	247.7	9.2	8.6	0.0
Lane LOS	F	A	A	
Approach Delay (s)	247.7	9.2	8.6	0.0
Approach LOS	F	A		

Intersection Summary			
Average Delay		47.9	
Intersection Capacity Utilization	79.0%		ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 34: Goffstown Road & Coolidge Ave

Synchro 6 Report
 6/21/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑	↗		↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	360	15	100	880	10	30	0	115	20	5	5
Peak Hour Factor	0.89	0.89	0.89	0.94	0.94	0.94	0.78	0.78	0.78	0.36	0.36	0.36
Hourly flow rate (vph)	6	404	17	106	936	11	38	0	147	56	14	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									9			
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)					327							
pX, platoon unblocked	0.60						0.60	0.60		0.60	0.60	0.60
vC, conflicting volume	947			421			1599	1584	413	1578	1587	941
vC1, stage 1 conf vol				0								
vC2, stage 2 conf vol				0								
vCu, unblocked vol	911			421			2000	1974	413	1965	1980	902
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)				3.1								
iF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			89			0	100	77	0	58	93
cM capacity (veh/h)	453			947			15	33	641	20	33	203

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	427	1053	186	83
Volume Left	6	106	38	56
Volume Right	17	11	147	14
cSH	453	947	72	25
Volume to Capacity	0.01	0.11	2.59	3.27
Queue Length 95th (ft)	1	9	453	Err
Control Delay (s)	0.4	3.1	845.2	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.4	3.1	845.2	Err
Approach LOS			F	F

Intersection Summary			
Average Delay		568.1	
Intersection Capacity Utilization		90.9%	ICU Level of Service E
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 35: Amoskeag Street & Exit 6 NB On Ramp

Synchro 6 Report
 6/21/2013

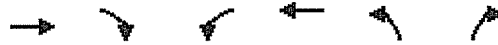


Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑↑↑			
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	1900	910	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	2021	968	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)		324	253			
pX, platoon unblocked	0.57				0.57	0.57
vC, conflicting volume	2021				2505	1158
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1288				2135	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	309				24	622

Direction, Lane #	WB 1	WB 2	WB 3
Volume Total	809	809	1372
Volume Left	0	0	0
Volume Right	0	0	968
cSH	1700	1700	1700
Volume to Capacity	0.48	0.48	0.81
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 38: Front Street & Exit 7 SB On Ramp



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖		↗			
Sign Control	Free		Free		Stop	
Grade	0%		0%		0%	
Volume (veh/h)	350	505	0	0	210	40
Peak Hour Factor	0.84	0.84	0.92	0.92	0.89	0.89
Hourly flow rate (vph)	417	601	0	0	236	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1018		717	717
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1018		717	717
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		40	90
cM capacity (veh/h)			682		396	429

Direction, Lane #	EB 1	NB 1
Volume Total	1018	281
Volume Left	0	236
Volume Right	601	45
cSH	1700	401
Volume to Capacity	0.60	0.70
Queue Length 95th (ft)	0	130
Control Delay (s)	0.0	32.4
Lane LOS		D
Approach Delay (s)	0.0	32.4
Approach LOS		D

Intersection Summary			
Average Delay	7.0		
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑			↑		↗
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	210	0	0	855	0	950
Peak Hour Factor	0.77	0.77	0.79	0.79	0.91	0.91
Hourly flow rate (vph)	273	0	0	1082	0	1044
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume						
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol						
tC, single (s)						
tC, 2 stage (s)						
tF (s)						
p0 queue free %						
cM capacity (veh/h)						
Direction, Lane #						
	NB 1	SB 1	NW 1			
Volume Total	273	1082	1044			
Volume Left	0	0	0			
Volume Right	0	0	1044			
cSH	1700	1700	771			
Volume to Capacity	0.16	0.64	1.35			
Queue Length 95th (ft)	0	0	1080			
Control Delay (s)	0.0	0.0	185.3			
Lane LOS			F			
Approach Delay (s)	0.0	0.0	185.3			
Approach LOS			F			
Intersection Summary						
Average Delay			80.6			
Intersection Capacity Utilization			76.5%	ICU Level of Service		D
Analysis Period (min)			15			



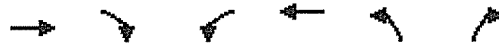
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑		↑↑		
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	1220	0	1670	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1326	0	1815	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			190			
pX, platoon unblocked						
vC, conflicting volume	1815				663	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1815				663	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
iF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	334				394	1084

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	663	663	908	908
Volume Left	0	0	0	0
Volume Right	0	0	908	908
cSH	1700	1700	1700	1700
Volume to Capacity	0.39	0.39	0.53	0.53
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		61.8%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶	↷		↶	↷	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	5	40	85	940	790	25
Peak Hour Factor	0.68	0.68	0.93	0.93	0.82	0.82
Hourly flow rate (vph)	7	59	91	1011	963	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	2					
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2172	979	994			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2172	979	994			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	83	81	87			
cM capacity (veh/h)	44	302	700			
Direction, Lane #						
	EB 1	NB 1	SB 1			
Volume Total	66	1102	994			
Volume Left	7	91	0			
Volume Right	59	0	30			
cSH	340	700	1700			
Volume to Capacity	0.19	0.13	0.58			
Queue Length 95th (ft)	18	11	0			
Control Delay (s)	28.9	4.1	0.0			
Lane LOS	D	A				
Approach Delay (s)	28.9	4.1	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			3.0			
Intersection Capacity Utilization	110.6%		ICU Level of Service	H		
Analysis Period (min)	15					



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↵			↶	↷	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	65	40	5	185	65	5
Peak Hour Factor	0.79	0.79	0.75	0.75	0.85	0.85
Hourly flow rate (vph)	82	51	7	247	76	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			133		368	108
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			133		368	108
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		88	99
cM capacity (veh/h)			1458		633	952

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	133	253	82
Volume Left	0	7	76
Volume Right	51	0	6
cSH	1700	1458	649
Volume to Capacity	0.08	0.00	0.13
Queue Length 95th (ft)	0	0	11
Control Delay (s)	0.0	0.2	11.4
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	11.4
Approach LOS			B

Intersection Summary			
Average Delay			2.1
Intersection Capacity Utilization	24.3%	ICU Level of Service	A
Analysis Period (min)			15



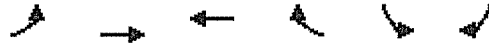
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	995	215	0	995	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1082	234	0	1082	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)	818			817		
pX, platoon unblocked			0.36		0.36	0.36
vC, conflicting volume			1315		2163	1082
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1879		4244	1227
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			114		1	78

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	1082	234	1082
Volume Left	0	0	0
Volume Right	0	234	0
cSH	1700	1700	1700
Volume to Capacity	0.64	0.14	0.64
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		0.0
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization	61.5%		ICU Level of Service B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 64: Goffstown Road & Straw Road

Synchro 6 Report
 6/21/2013



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	280	605	80	50	15
Peak Hour Factor	0.81	0.81	0.82	0.82	0.58	0.58
Hourly flow rate (vph)	6	346	738	98	86	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	835				1145	787
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	835				1145	787
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				61	93
cM capacity (veh/h)	798				219	392

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	352	835	112
Volume Left	6	0	86
Volume Right	0	98	26
cSH	798	1700	244
Volume to Capacity	0.01	0.49	0.46
Queue Length 95th (ft)	1	0	56
Control Delay (s)	0.3	0.0	31.7
Lane LOS	A		D
Approach Delay (s)	0.3	0.0	31.7
Approach LOS			D

Intersection Summary			
Average Delay		2.8	
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↑	↗				
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1140	1220	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1239	1326	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type None						
Median storage veh						
Upstream signal (ft) 280						
pX, platoon unblocked						
vC, conflicting volume 2565 1239 620						
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol 2565 1239 620						
tC, single (s) 4.1 6.8 6.9						
tC, 2 stage (s)						
tF (s) 2.2 3.5 3.3						
p0 queue free % 100 100 100						
cM capacity (veh/h) 169 168 431						

Direction, Lane #	NB 1	NB 2	NB 3
Volume Total	826	855	884
Volume Left	0	0	0
Volume Right	0	442	884
cSH	1700	1700	1700
Volume to Capacity	0.49	0.50	0.52
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		
Approach LOS			

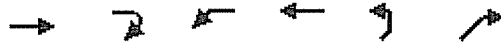
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations				↑	↘	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	900	600	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	978	652	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)				180		
pX, platoon unblocked					0.80	
vC, conflicting volume			0		978	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		973	0
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		0	100
cM capacity (veh/h)			1623		223	1085

Direction, Lane #	SB 1	SW 1
Volume Total	978	652
Volume Left	0	652
Volume Right	0	0
cSH	1700	223
Volume to Capacity	0.58	2.93
Queue Length 95th (ft)	0	1447
Control Delay (s)	0.0	911.7
Lane LOS		F
Approach Delay (s)	0.0	911.7
Approach LOS		F

Intersection Summary		
Average Delay	364.7	
Intersection Capacity Utilization	90.0%	ICU Level of Service E
Analysis Period (min)	15	



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations			↵	↑↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	600	1300	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	652	1413	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)	139			438		
pX, platoon unblocked						
vC, conflicting volume			0		2011	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		2011	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			60		100	100
cM capacity (veh/h)			1622		31	1084

Direction, Lane #	WB 1	WB 2	WB 3
Volume Total	652	707	707
Volume Left	652	0	0
Volume Right	0	0	0
cSH	1622	1700	1700
Volume to Capacity	0.40	0.42	0.42
Queue Length 95th (ft)	50	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	2.7		
Approach LOS			

Intersection Summary			
Average Delay		2.7	
Intersection Capacity Utilization		74.4%	ICU Level of Service D
Analysis Period (min)		15	



HCM Unsignalized Intersection Capacity Analysis
 4: McGregor Street & Exit 6 SB On Ramp

Synchro 6 Report
 6/21/2013



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑			↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	585	485	0	1180	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	616	511	0	1242	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1126		2113	871
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1126		2113	871
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			624		56	350

Direction, Lane #	NB 1	SB 1
Volume Total	1126	1242
Volume Left	0	0
Volume Right	511	0
cSH	1700	1700
Volume to Capacity	0.66	0.73
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		70.7%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 15: Exit 6 SB Off Ramp & Eddy Road

Synchro 6 Report
 6/21/2013



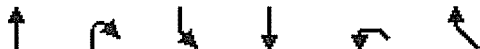
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	305	520	560	0	0	895
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	321	547	589	0	0	942
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1532	589			589	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1532	589			589	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
iF (s)	3.5	3.3			2.2	
p0 queue free %	0	0			100	
cM capacity (veh/h)	130	512			991	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	321	547	589	942
Volume Left	321	0	0	0
Volume Right	0	547	0	0
cSH	130	512	1700	1700
Volume to Capacity	2.47	1.07	0.35	0.55
Queue Length 95th (ft)	704	418	0	0
Control Delay (s)	738.4	88.0	0.0	0.0
Lane LOS	F	F		
Approach Delay (s)	328.5		0.0	0.0
Approach LOS	F			

Intersection Summary			
Average Delay	118.9		
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

HCM Unsignalized Intersection Capacity Analysis
 23: Eddy Road & Exit 6 SB On Ramp



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations				↕↕		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	905	2010	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	953	2116	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)				368		
pX, platoon unblocked						
vC, conflicting volume			0	2963	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	2963	0	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			42	100	100	
cM capacity (veh/h)			1629	5	1084	

Direction, Lane #	SB 1	SB 2
Volume Total	1658	1411
Volume Left	953	0
Volume Right	0	0
cSH	1629	1700
Volume to Capacity	0.58	0.83
Queue Length 95th (ft)	101	0
Control Delay (s)	10.3	0.0
Lane LOS	B	
Approach Delay (s)	5.5	
Approach LOS		

Intersection Summary			
Average Delay		5.5	
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 25: Amoskeag Street &



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↘	↕
Sign Control	Yield		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	1200	2195	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1263	2311	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)	585					
pX, platoon unblocked						
vC, conflicting volume	2311	1155			2311	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2311	1155			2311	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	0			100	
cM capacity (veh/h)	32	190			213	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	1263	1155	1155
Volume Left	0	0	0
Volume Right	1263	0	0
cSH	190	1700	1700
Volume to Capacity	6.65	0.68	0.68
Queue Length 95th (ft)	Err	0	0
Control Delay (s)	Err	0.0	0.0
Lane LOS	F		
Approach Delay (s)	Err	0.0	
Approach LOS	F		

Intersection Summary			
Average Delay		3534.3	
Intersection Capacity Utilization		141.6%	ICU Level of Service H
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 33: Dunbarton Road & Front Street

Synchro 6 Report
 6/21/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	295	0	385	5	0	5	155	105	15	5	515	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	311	0	405	5	0	5	163	111	16	5	542	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1024	1026	563	1424	1039	118	584			126		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1024	1026	563	1424	1039	118	584			126		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
iF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	0	100	23	77	100	99	83			100		
cM capacity (veh/h)	185	194	526	23	193	939	971			1460		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	716	11	289	589
Volume Left	311	5	163	5
Volume Right	405	5	16	42
cSH	292	45	971	1460
Volume to Capacity	2.45	0.24	0.17	0.00
Queue Length 95th (ft)	1441	20	15	0
Control Delay (s)	691.2	109.3	6.1	0.1
Lane LOS	F	F	A	A
Approach Delay (s)	691.2	109.3	6.1	0.1
Approach LOS	F	F		

Intersection Summary			
Average Delay	310.1		
Intersection Capacity Utilization	101.5%	ICU Level of Service	G
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 34: Goffstown Road & Coolidge Ave

Synchro 6 Report
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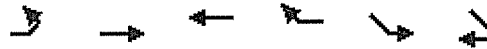


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↑	↗		↔	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	1115	20	75	500	25	5	0	230	5	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	1174	21	79	526	26	5	0	242	5	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									9			
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)					313							
pX, platoon unblocked	0.80						0.80	0.80		0.80	0.80	0.80
vC, conflicting volume	553			1195			1892	1905	1184	1892	1903	539
vC1, stage 1 conf vol				0								
vC2, stage 2 conf vol				0								
vCu, unblocked vol	443			1195			2110	2126	1184	2110	2123	427
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)				3.1								
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			92			81	100	0	0	100	100
cM capacity (veh/h)	906			1012			28	37	230	0	37	508

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1200	632	247	5
Volume Left	5	79	5	5
Volume Right	21	26	242	0
cSH	906	1012	235	0
Volume to Capacity	0.01	0.08	1.05	Err
Queue Length 95th (ft)	0	6	260	Err
Control Delay (s)	0.2	2.0	119.7	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.2	2.0	119.7	Err
Approach LOS			F	F

Intersection Summary			
Average Delay			Err
Intersection Capacity Utilization		95.6%	ICU Level of Service F
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 35: Amoskeag Street & Exit 6 NB On Ramp

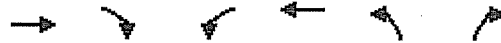


Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑↑↑			
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	1515	765	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	1595	805	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)		318	269			
pX, platoon unblocked	0.74				0.74	0.74
vC, conflicting volume	1595				1997	934
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1097				1642	203
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	467				67	594

Direction, Lane #	WB 1	WB 2	WB 3
Volume Total	638	638	1124
Volume Left	0	0	0
Volume Right	0	0	805
cSH	1700	1700	1700
Volume to Capacity	0.38	0.38	0.66
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		49.7%	ICU Level of Service A
Analysis Period (min)		15	

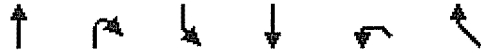
HCM Unsignalized Intersection Capacity Analysis
 38: Front Street & Exit 7 SB On Ramp



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑				↘	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	600	545	0	0	190	225
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	632	574	0	0	200	237
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1205		918	918
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1205		918	918
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		34	28
cM capacity (veh/h)			579		301	329

Direction, Lane #	EB 1	NB 1
Volume Total	1205	437
Volume Left	0	200
Volume Right	574	237
cSH	1700	316
Volume to Capacity	0.71	1.38
Queue Length 95th (ft)	0	561
Control Delay (s)	0.0	223.3
Lane LOS		F
Approach Delay (s)	0.0	223.3
Approach LOS		F

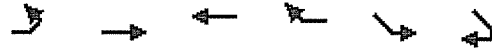
Intersection Summary			
Average Delay		59.4	
Intersection Capacity Utilization	95.9%	ICU Level of Service	F
Analysis Period (min)		15	



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑			↑		↗
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	190	0	0	1145	0	685
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	200	0	0	1205	0	721
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type None						
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume 200 1405 200						
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol 200 1405 200						
tC, single (s) 4.1 6.4 6.2						
tC, 2 stage (s)						
tF (s) 2.2 3.5 3.3						
p0 queue free % 100 100 14						
cM capacity (veh/h) 1378 154 841						
Direction, Lane #	NB 1	SB 1	NW 1			
Volume Total	200	1205	721			
Volume Left	0	0	0			
Volume Right	0	0	721			
cSH	1700	1700	841			
Volume to Capacity	0.12	0.71	0.86			
Queue Length 95th (ft)	0	0	264			
Control Delay (s)	0.0	0.0	29.0			
Lane LOS			D			
Approach Delay (s)	0.0	0.0	29.0			
Approach LOS			D			
Intersection Summary						
Average Delay			9.8			
Intersection Capacity Utilization	63.6%		ICU Level of Service	B		
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 41: Amoskeag Street &

Synchro 6 Report
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Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑		↑↑		
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	2400	0	1285	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	2526	0	1353	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)			198			
pX, platoon unblocked						
vC, conflicting volume	1353				1263	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1353				1263	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	505				162	1084

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	1263	1263	676	676
Volume Left	0	0	0	0
Volume Right	0	0	676	676
cSH	1700	1700	1700	1700
Volume to Capacity	0.74	0.74	0.40	0.40
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		69.7%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
42: MCC & Front Street



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free		Free
Grade	0%			0%		0%
Volume (veh/h)	20	50	325	550	1095	200
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	53	342	579	1153	211
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	2					
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2521	1258	1363			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2521	1258	1363			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	0	74	32			
cM capacity (veh/h)	9	200	501			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	74	921	1363			
Volume Left	21	342	0			
Volume Right	53	0	211			
cSH	29	501	1700			
Volume to Capacity	2.51	0.68	0.80			
Queue Length 95th (ft)	218	128	0			
Control Delay (s)	972.9	26.9	0.0			
Lane LOS	F	D				
Approach Delay (s)	972.9	26.9	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay			40.9			
Intersection Capacity Utilization			130.0%	ICU Level of Service	H	
Analysis Period (min)			15			

Intersection Sign configuration not allowed in HCM analysis.

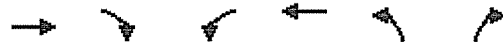
HCM Unsignalized Intersection Capacity Analysis
 44: Country Club Drive & Front Street



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶	↷		↶	↷	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	15	130	30	540	1165	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	16	137	32	568	1226	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1861	1229	1232			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1861	1229	1232			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
iF (s)	3.5	3.3	2.2			
p0 queue free %	79	37	94			
cM capacity (veh/h)	76	217	559			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	153	600	1232
Volume Left	16	32	0
Volume Right	137	0	5
cSH	242	559	1700
Volume to Capacity	0.63	0.06	0.72
Queue Length 95th (ft)	96	4	0
Control Delay (s)	48.2	1.6	0.0
Lane LOS	E	A	
Approach Delay (s)	48.2	1.6	0.0
Approach LOS	E		

Intersection Summary			
Average Delay		4.2	
Intersection Capacity Utilization		76.3%	ICU Level of Service D
Analysis Period (min)		15	



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖		↗
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	375	45	15	45	15	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	395	47	16	47	16	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			442	497	418	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			442	497	418	
tC, single (s)			4.1	6.4	6.2	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			99	97	97	
cM capacity (veh/h)			1113	528	639	

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	442	63	37
Volume Left	0	16	16
Volume Right	47	0	21
cSH	1700	1113	586
Volume to Capacity	0.26	0.01	0.06
Queue Length 95th (ft)	0	1	5
Control Delay (s)	0.0	2.2	11.6
Lane LOS		A	B
Approach Delay (s)	0.0	2.2	11.6
Approach LOS			B

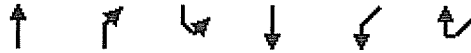
Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations			↵	↑↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	825	690	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	868	726	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)	143			444		
pX, platoon unblocked						
vC, conflicting volume			0	2100	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	2100	0	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			46	100	100	
cM capacity (veh/h)			1622	21	1084	

Direction, Lane #	WB 1	WB 2	WB 3
Volume Total	868	363	363
Volume Left	868	0	0
Volume Right	0	0	0
cSH	1622	1700	1700
Volume to Capacity	0.54	0.21	0.21
Queue Length 95th (ft)	84	0	0
Control Delay (s)	9.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	5.3		
Approach LOS			

Intersection Summary			
Average Delay		5.3	
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		



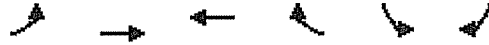
Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations				↑	↘	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	2090	825	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	2200	868	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type None						
Median storage veh						
Upstream signal (ft) 170						
pX, platoon unblocked 0.65						
vC, conflicting volume 0 2200 0						
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol 0 2850 0						
tC, single (s) 4.1 6.4 6.2						
tC, 2 stage (s)						
tF (s) 2.2 3.5 3.3						
p0 queue free % 100 0 100						
cM capacity (veh/h) 1623 12 1085						

Direction, Lane #	SB 1	SW 1
Volume Total	2200	868
Volume Left	0	868
Volume Right	0	0
cSH	1700	12
Volume to Capacity	1.29	71.01
Queue Length 95th (ft)	0	Err
Control Delay (s)	0.0	Err
Lane LOS		F
Approach Delay (s)	0.0	Err
Approach LOS		F

Intersection Summary			
Average Delay		2829.9	
Intersection Capacity Utilization	162.4%	ICU Level of Service	H
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 65: Goffstown Road & Straw Road

Synchro 6 Report
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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	910	265	10	80	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	958	279	11	84	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	289				1253	284
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	289				1253	284
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
iF (s)	2.2				3.5	3.3
p0 queue free %	100				56	99
cM capacity (veh/h)	1272				189	755

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	963	289	89
Volume Left	5	0	84
Volume Right	0	11	5
cSH	1272	1700	198
Volume to Capacity	0.00	0.17	0.45
Queue Length 95th (ft)	0	0	53
Control Delay (s)	0.1	0.0	37.4
Lane LOS	A		E
Approach Delay (s)	0.1	0.0	37.4
Approach LOS			E

Intersection Summary			
Average Delay		2.6	
Intersection Capacity Utilization	63.3%		ICU Level of Service B
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↑	↑				
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	995	2400	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1047	2526	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)				269		
pX, platoon unblocked						
vC, conflicting volume			3574	1047	524	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			3574	1047	524	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			100	100	100	
cM capacity (veh/h)			66	223	498	

Direction, Lane #	NB 1	NB 2	NB 3
Volume Total	698	1191	1684
Volume Left	0	0	0
Volume Right	0	842	1684
cSH	1700	1700	1700
Volume to Capacity	0.41	0.70	0.99
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization	102.4%	ICU Level of Service	G
Analysis Period (min)	15		



HCM Unsignalized Intersection Capacity Analysis
 4: McGregor Street & Exit 6 SB On Ramp



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↔			↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	790	420	0	905	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	832	442	0	953	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1274		2005	1053
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1274		2005	1053
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			549		65	275

Direction, Lane #	NB 1	SB 1
Volume Total	1274	953
Volume Left	0	0
Volume Right	442	0
cSH	1700	1700
Volume to Capacity	0.75	0.56
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay			0.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis
 15: Exit 6 SB Off Ramp & Eddy Road



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑			↑
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	250	260	785	0	0	675
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	263	274	826	0	0	711
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1537	826			826	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1537	826			826	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	27			100	
cM capacity (veh/h)	128	373			809	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	263	274	826	711
Volume Left	263	0	0	0
Volume Right	0	274	0	0
cSH	128	373	1700	1700
Volume to Capacity	2.05	0.73	0.49	0.42
Queue Length 95th (ft)	536	142	0	0
Control Delay (s)	555.9	37.0	0.0	0.0
Lane LOS	F	E		
Approach Delay (s)	291.3		0.0	0.0
Approach LOS	F			

Intersection Summary			
Average Delay		75.4	
Intersection Capacity Utilization		70.5%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 16: MCC & Front Street

Synchro 6 Report
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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↘		↑	↓	↘
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	120	125	190	1230	935	105
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	126	132	200	1295	984	111
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	2					
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2734	1039	1095			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2734	1039	1095			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	53	69			
cM capacity (veh/h)	16	281	641			
Direction, Lane #						
	EB 1	NB 1	SB 1			
Volume Total	258	1495	1095			
Volume Left	126	200	0			
Volume Right	132	0	111			
cSH	30	641	1700			
Volume to Capacity	8.59	0.31	0.64			
Queue Length 95th (ft)	Err	33	0			
Control Delay (s)	Err	16.6	0.0			
Lane LOS	F	C				
Approach Delay (s)	Err	16.6	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay	914.4					
Intersection Capacity Utilization	147.5%		ICU Level of Service	H		
Analysis Period (min)	15					

Intersection Sign configuration not allowed in HCM analysis.



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations				↑↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	635	1255	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	668	1321	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type None						
Median storage veh						
Upstream signal (ft) 362						
pX, platoon unblocked						
vC, conflicting volume 0 1997 0						
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol 0 1997 0						
tC, single (s) 4.1 6.8 6.9						
tC, 2 stage (s)						
tF (s) 2.2 3.5 3.3						
p0 queue free % 59 100 100						
cM capacity (veh/h) 1636 32 1091						
Direction, Lane # SB 1 SB 2						
Volume Total	1109	881				
Volume Left	668	0				
Volume Right	0	0				
cSH	1636	1700				
Volume to Capacity	0.41	0.52				
Queue Length 95th (ft)	51	0				
Control Delay (s)	7.2	0.0				
Lane LOS	A					
Approach Delay (s)	4.0					
Approach LOS						
Intersection Summary						
Average Delay		4.0				
Intersection Capacity Utilization		56.5%		ICU Level of Service		B
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis
 25: Amoskeag Street &

Synchro 6 Report
 6/21/2013



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			
Sign Control	Yield		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	1345	1625	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1416	1711	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						591
pX, platoon unblocked						
vC, conflicting volume	1711	855			1711	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1711	855			1711	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
iF (s)	3.5	3.3			2.2	
p0 queue free %	100	0			100	
cM capacity (veh/h)	83	303			367	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	1416	855	855
Volume Left	0	0	0
Volume Right	1416	0	0
cSH	303	1700	1700
Volume to Capacity	4.67	0.50	0.50
Queue Length 95th (ft)	Err	0	0
Control Delay (s)	Err	0.0	0.0
Lane LOS	F		
Approach Delay (s)	Err	0.0	
Approach LOS	F		

Intersection Summary			
Average Delay		4528.2	
Intersection Capacity Utilization		134.9%	ICU Level of Service H
Analysis Period (min)		15	

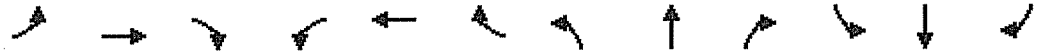
HCM Unsignalized Intersection Capacity Analysis
 33: Dunbarton Road & Front Street

Synchro 6 Report
 6/21/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	90	0	185	0	0	5	385	180	5	0	460	115
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	95	0	195	0	0	5	405	189	5	0	484	121
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1553	1550	545	1742	1608	192	605			195		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1553	1550	545	1742	1608	192	605			195		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	64	100	100	99	59			100		
cM capacity (veh/h)	62	67	538	30	62	855	978			1390		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	289	5	600	605								
Volume Left	95	0	405	0								
Volume Right	195	5	5	121								
cSH	153	855	978	1390								
Volume to Capacity	1.89	0.01	0.41	0.00								
Queue Length 95th (ft)	549	0	52	0								
Control Delay (s)	473.6	9.2	9.3	0.0								
Lane LOS	F	A	A									
Approach Delay (s)	473.6	9.2	9.3	0.0								
Approach LOS	F	A										
Intersection Summary												
Average Delay			95.2									
Intersection Capacity Utilization			95.3%		ICU Level of Service				F			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 34: Goffstown Road & Coolidge Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑	↗		↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	455	20	125	1105	15	40	0	145	25	5	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	479	21	132	1163	16	42	0	153	26	5	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									9			
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)					327							
pX, platoon unblocked	0.45						0.45	0.45		0.45	0.45	0.45
vC, conflicting volume	1179			500			1942	1942	489	1934	1945	1171
vC1, stage 1 conf vol				0								
vC2, stage 2 conf vol				0								
vCu, unblocked vol	1399			500			3102	3102	489	3084	3108	1382
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)				3.1								
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			86			0	100	74	0	0	93
cM capacity (veh/h)	222			922			0	4	581	2	4	80

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	505	1311	195	37
Volume Left	5	132	42	26
Volume Right	21	16	153	5
cSH	222	922	0	3
Volume to Capacity	0.02	0.14	Err	13.56
Queue Length 95th (ft)	2	12	Err	Err
Control Delay (s)	0.9	5.0	Err	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.9	5.0	Err	Err
Approach LOS			F	F

Intersection Summary			
Average Delay		Err	
Intersection Capacity Utilization		110.0%	ICU Level of Service H
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 35: Amoskeag Street & Exit 6 NB On Ramp

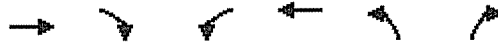
Synchro 6 Report
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Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑↑↑			
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	2390	1145	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	2516	1205	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)		324	253			
pX, platoon unblocked	0.54				0.54	0.54
vC, conflicting volume	2516				3118	1441
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2095				3221	88
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	141				4	512

Direction, Lane #	WB 1	WB 2	WB 3
Volume Total	1006	1006	1708
Volume Left	0	0	0
Volume Right	0	0	1205
cSH	1700	1700	1700
Volume to Capacity	0.59	0.59	1.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		75.1%	ICU Level of Service D
Analysis Period (min)		15	



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖				↗	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	440	660	0	0	265	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	463	695	0	0	279	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1158		811	811
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1158		811	811
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		20	86
cM capacity (veh/h)			603		349	380

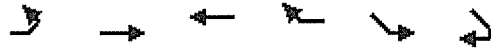
Direction, Lane #	EB 1	NB 1
Volume Total	1158	332
Volume Left	0	279
Volume Right	695	53
cSH	1700	354
Volume to Capacity	0.68	0.94
Queue Length 95th (ft)	0	246
Control Delay (s)	0.0	68.2
Lane LOS		F
Approach Delay (s)	0.0	68.2
Approach LOS		F

Intersection Summary			
Average Delay		15.2	
Intersection Capacity Utilization		88.0%	ICU Level of Service E
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 40: Front Street & 293 Exit 7 NB Off Ramp



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑			↑		↗
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	265	0	0	1115	0	1195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	279	0	0	1174	0	1258
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			279		1453	279
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			279		1453	279
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			1290		145	765
Direction, Lane #						
	NB 1	SB 1	NW 1			
Volume Total	279	1174	1258			
Volume Left	0	0	0			
Volume Right	0	0	1258			
cSH	1700	1700	765			
Volume to Capacity	0.16	0.69	1.64			
Queue Length 95th (ft)	0	0	1713			
Control Delay (s)	0.0	0.0	311.5			
Lane LOS			F			
Approach Delay (s)	0.0	0.0	311.5			
Approach LOS			F			
Intersection Summary						
Average Delay			144.6			
Intersection Capacity Utilization			94.6%		ICU Level of Service	F
Analysis Period (min)			15			



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑		↑↑		
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	1535	0	2100	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1616	0	2211	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			190			
pX, platoon unblocked						
vC, conflicting volume	2211				808	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2211				808	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	234				319	1084

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	808	808	1105	1105
Volume Left	0	0	0	0
Volume Right	0	0	1105	1105
cSH	1700	1700	1700	1700
Volume to Capacity	0.48	0.48	0.65	0.65
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		76.8%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 44: Country Club Drive & Front Street

Synchro 6 Report
 6/21/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	5	50	105	1180	995	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	53	111	1242	1047	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	2					
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2526	1063	1079			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2526	1063	1079			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	79	81	83			
cM capacity (veh/h)	25	270	650			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	58	1353	1079			
Volume Left	5	111	0			
Volume Right	53	0	32			
cSH	276	650	1700			
Volume to Capacity	0.21	0.17	0.63			
Queue Length 95th (ft)	19	15	0			
Control Delay (s)	36.2	7.7	0.0			
Lane LOS	E	A				
Approach Delay (s)	36.2	7.7	0.0			
Approach LOS	E					
Intersection Summary						
Average Delay	5.0					
Intersection Capacity Utilization	135.4%			ICU Level of Service	H	
Analysis Period (min)	15					



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔		↔	
Sign Control	Free		Free		Stop	
Grade	0%		0%		0%	
Volume (veh/h)	80	50	5	235	80	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	84	53	5	247	84	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			137		368	111
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			137		368	111
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		87	99
cM capacity (veh/h)			1453		633	948

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	137	253	89
Volume Left	0	5	84
Volume Right	53	0	5
cSH	1700	1453	646
Volume to Capacity	0.08	0.00	0.14
Queue Length 95th (ft)	0	0	12
Control Delay (s)	0.0	0.2	11.5
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	11.5
Approach LOS			B

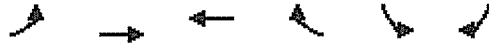
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	27.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1255	265	0	1255	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1321	279	0	1321	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)	818			817		
pX, platoon unblocked			0.30		0.30	0.30
vC, conflicting volume			1600		2642	1321
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			2996		6463	2068
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			35		0	20

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	1321	279	1321
Volume Left	0	0	0
Volume Right	0	279	0
cSH	1700	1700	1700
Volume to Capacity	0.78	0.16	0.78
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		0.0
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		76.7%	ICU Level of Service D
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	350	760	100	65	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	368	800	105	68	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	905				1232	853
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	905				1232	853
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				65	94
cM capacity (veh/h)	751				194	359

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	374	905	89
Volume Left	5	0	68
Volume Right	0	105	21
cSH	751	1700	218
Volume to Capacity	0.01	0.53	0.41
Queue Length 95th (ft)	1	0	47
Control Delay (s)	0.2	0.0	32.6
Lane LOS	A		D
Approach Delay (s)	0.2	0.0	32.6
Approach LOS			D

Intersection Summary			
Average Delay		2.2	
Intersection Capacity Utilization		57.6%	ICU Level of Service B
Analysis Period (min)		15	



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↑	↑				
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1435	1535	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1511	1616	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume						
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol						
tC, single (s)						
tC, 2 stage (s)						
tF (s)						
p0 queue free %						
cM capacity (veh/h)						

Direction, Lane #	NB 1	NB 2	NB 3
Volume Total	1007	1042	1077
Volume Left	0	0	0
Volume Right	0	539	1077
cSH	1700	1700	1700
Volume to Capacity	0.59	0.61	0.63
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s)	0.0		
Approach LOS			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	105.7%	ICU Level of Service	G
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations				↑	↘	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	1135	755	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	1195	795	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)				180		
pX, platoon unblocked					0.74	
vC, conflicting volume			0	1195	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	1263	0	
tC, single (s)			4.1	6.4	6.2	
tC, 2 stage (s)						
iF (s)			2.2	3.5	3.3	
p0 queue free %			100	0	100	
cM capacity (veh/h)			1623	139	1085	

Direction, Lane #	SB 1	SW 1
Volume Total	1195	795
Volume Left	0	795
Volume Right	0	0
cSH	1700	139
Volume to Capacity	0.70	5.73
Queue Length 95th (ft)	0	Err
Control Delay (s)	0.0	Err
Lane LOS		F
Approach Delay (s)	0.0	Err
Approach LOS		F

Intersection Summary			
Average Delay		3994.3	
Intersection Capacity Utilization	111.6%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations			↵	↑↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	755	1635	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	795	1721	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)	139			438		
pX, platoon unblocked						
vC, conflicting volume			0		2450	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		2450	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			51		100	100
cM capacity (veh/h)			1622		13	1084

Direction, Lane #	WB 1	WB 2	WB 3
Volume Total	795	861	861
Volume Left	795	0	0
Volume Right	0	0	0
cSH	1622	1700	1700
Volume to Capacity	0.49	0.51	0.51
Queue Length 95th (ft)	70	0	0
Control Delay (s)	9.3	0.0	0.0
Lane LOS	A		
Approach Delay (s)	2.9		
Approach LOS			

Intersection Summary			
Average Delay		2.9	
Intersection Capacity Utilization	89.1%		ICU Level of Service E
Analysis Period (min)		15	



HCM Unsignalized Intersection Capacity Analysis
 1: Goffstown Road & Coolidge Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕↔		↔	↕↔			↕	↔		↕↔	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	1255	20	150	745	25	5	1	260	5	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	1321	21	158	784	26	5	1	274	5	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									8			
Median type							TWLTL			TWLTL		
Median storage (veh)							0			0		
Upstream signal (ft)				497								
pX, platoon unblocked												
vC, conflicting volume	811			1342			2052	2468	671	1785	2466	405
vC1, stage 1 conf vol							1342	1342		1113	1113	
vC2, stage 2 conf vol							709	1126		672	1353	
vCu, unblocked vol	811			1342			2052	2468	671	1785	2466	405
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			69			93	99	31	56	97	100
cM capacity (veh/h)	811			509			75	75	399	12	35	595

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	5	881	461	158	523	288	280	7
Volume Left	5	0	0	158	0	0	5	5
Volume Right	0	0	21	0	0	26	274	1
cSH	811	1700	1700	509	1700	1700	408	16
Volume to Capacity	0.01	0.52	0.27	0.31	0.31	0.17	0.69	0.47
Queue Length 95th (ft)	0	0	0	33	0	0	125	30
Control Delay (s)	9.5	0.0	0.0	15.2	0.0	0.0	32.2	363.3
Lane LOS	A			C			D	F
Approach Delay (s)	0.0			2.5			32.2	363.3
Approach LOS							D	F

Intersection Summary		
Average Delay		5.4
Intersection Capacity Utilization	64.8%	ICU Level of Service C
Analysis Period (min)		15



HCM Unsignalized Intersection Capacity Analysis
 1: Goffstown Road & Coolidge Ave

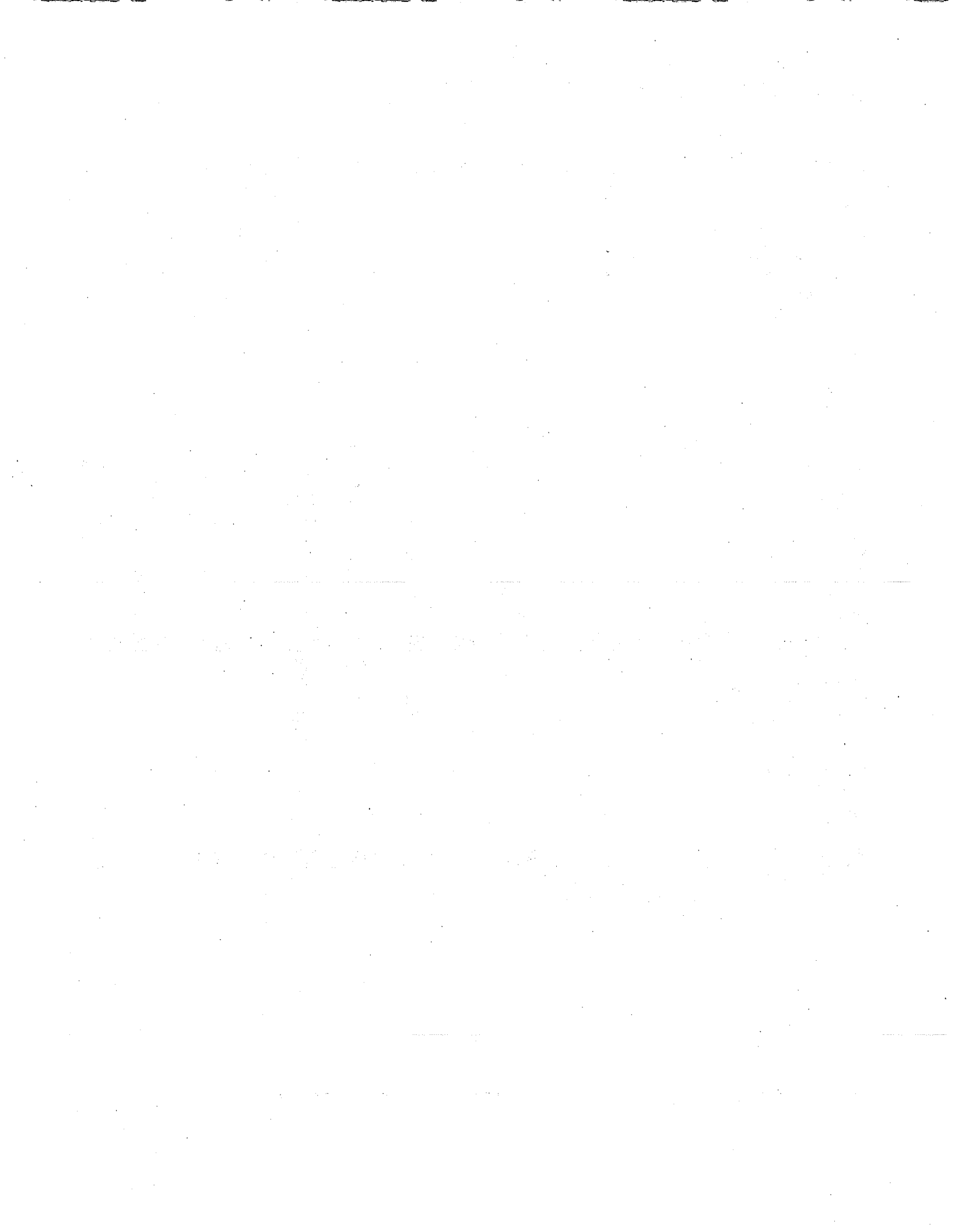
Synchro 6 Report
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↶	↷		↷	↶
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	645	20	205	1350	25	50	1	190	25	5	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	679	21	216	1421	26	53	1	200	26	5	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume												
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol												
tC, single (s)												
tC, 2 stage (s)												
tF (s)												
p0 queue free %												
cM capacity (veh/h)												

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	5	453	247	216	947	500	254	37
Volume Left	5	0	0	216	0	0	53	26
Volume Right	0	0	21	0	0	26	200	5
cSH	428	1700	1700	893	1700	1700	382	36
Volume to Capacity	0.01	0.27	0.15	0.24	0.56	0.29	0.66	1.03
Queue Length 95th (ft)	1	0	0	24	0	0	115	94
Control Delay (s)	13.5	0.0	0.0	10.3	0.0	0.0	33.9	326.8
Lane LOS	B			B			D	F
Approach Delay (s)	0.1			1.3			33.9	326.8
Approach LOS							D	F

Intersection Summary		
Average Delay		8.6
Intersection Capacity Utilization	60.1%	ICU Level of Service
Analysis Period (min)		15
		B



HCM Unsignalized Intersection Capacity Analysis
 1: Goffstown Road & Coolidge Ave

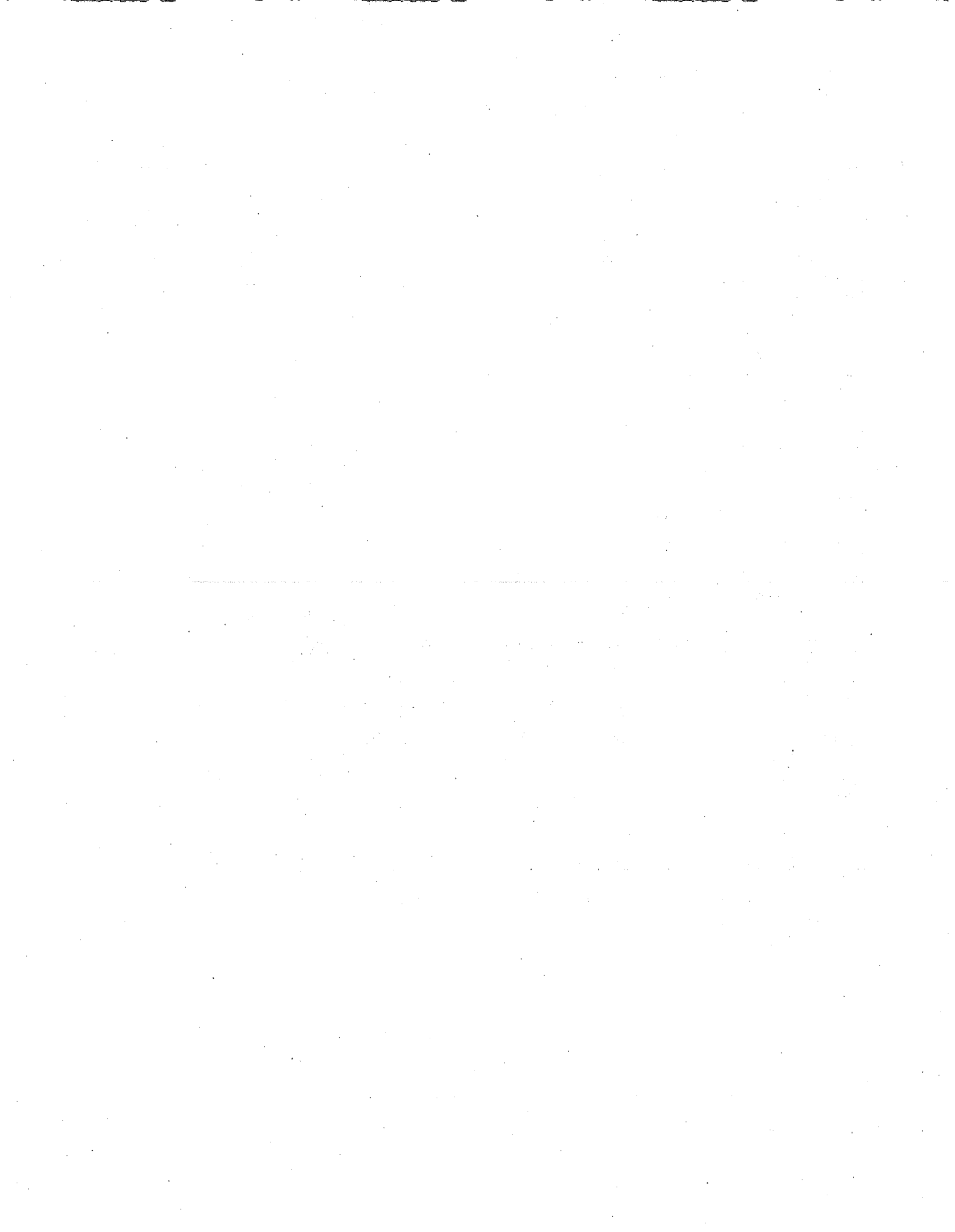
Synchro 6 Report
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕		↔	↕		↔	↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%						0%	
Volume (veh/h)	5	1115	20	125	610	25	5	1	250	5	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	1174	21	132	642	26	5	1	263	5	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									8			
Median type							TWLTL			TWLTL		
Median storage (veh)							0			0		
Upstream signal (ft)					293							
pX, platoon unblocked	0.88						0.88	0.88		0.88	0.88	0.88
vC, conflicting volume	668			1195			1781	2126	597	1516	2124	334
vC1, stage 1 conf vol							1195	1195		918	918	
vC2, stage 2 conf vol							586	932		598	1205	
vCu, unblocked vol	480			1195			1749	2144	597	1448	2141	98
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			77			95	99	41	85	98	100
cM capacity (veh/h)	945			580			101	100	446	34	67	822

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	5	782	412	132	428	240	269	7
Volume Left	5	0	0	132	0	0	5	5
Volume Right	0	0	21	0	0	26	263	1
cSH	945	1700	1700	580	1700	1700	457	43
Volume to Capacity	0.01	0.46	0.24	0.23	0.25	0.14	0.59	0.17
Queue Length 95th (ft)	0	0	0	22	0	0	93	14
Control Delay (s)	8.8	0.0	0.0	13.0	0.0	0.0	24.5	104.5
Lane LOS	A			B			C	F
Approach Delay (s)	0.0			2.1			24.5	104.5
Approach LOS							C	F

Intersection Summary	
Average Delay	4.0
Intersection Capacity Utilization	60.3%
ICU Level of Service	B
Analysis Period (min)	15



HCM Unsignalized Intersection Capacity Analysis
 1: Goffstown Road & Coolidge Ave

Synchro 6 Report
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑		↘	↑↑			↑	↗		↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%						0%	
Volume (veh/h)	5	455	20	180	1215	25	50	1	180	25	5	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	479	21	189	1279	26	53	1	189	26	5	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									8			
Median type							TWLTL			TWLTL		
Median storage (veh)							0			0		
Upstream signal (ft)					293							
pX, platoon unblocked	0.72						0.72	0.72		0.72	0.72	0.72
vC, conflicting volume	1305			500			1526	2184	250	1922	2182	653
vC1, stage 1 conf vol							500	500		1671	1671	
vC2, stage 2 conf vol							1026	1684		251	511	
vCu, unblocked vol	1030			500			1339	2257	250	1891	2254	119
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			82			58	98	75	39	91	99
cM capacity (veh/h)	480			1060			127	59	750	43	59	652

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	5	319	181	189	853	453	243	37
Volume Left	5	0	0	189	0	0	53	26
Volume Right	0	0	21	0	0	26	189	5
cSH	480	1700	1700	1060	1700	1700	568	52
Volume to Capacity	0.01	0.19	0.11	0.18	0.50	0.27	0.43	0.70
Queue Length 95th (ft)	1	0	0	16	0	0	53	72
Control Delay (s)	12.6	0.0	0.0	9.1	0.0	0.0	20.7	168.3
Lane LOS	B			A			C	F
Approach Delay (s)	0.1			1.2			20.7	168.3
Approach LOS							C	F

Intersection Summary			
Average Delay		5.7	
Intersection Capacity Utilization	56.3%		ICU Level of Service B
Analysis Period (min)	15		



HCM Unsignalized Intersection Capacity Analysis
 1: Dunbarton Road & New E-W Road

Synchro 6 Report
 2/11/2013



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↗
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	260	50	340	350	75	375
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	274	53	358	368	79	395
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						6
Median type					Raised	
Median storage veh					0	
Upstream signal (ft)				1107		
pX, platoon unblocked						
vC, conflicting volume			326		1358	274
vC1, stage 1 conf vol					274	
vC2, stage 2 conf vol					1084	
vCu, unblocked vol			326		1358	274
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			71		46	48
cM capacity (veh/h)			1233		145	765

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	274	53	358	368	474
Volume Left	0	0	358	0	79
Volume Right	0	53	0	0	395
cSH	1700	1700	1233	1700	871
Volume to Capacity	0.16	0.03	0.29	0.22	0.54
Queue Length 95th (ft)	0	0	30	0	84
Control Delay (s)	0.0	0.0	9.1	0.0	21.5
Lane LOS			A		C
Approach Delay (s)	0.0		4.5		21.5
Approach LOS					C

Intersection Summary					
Average Delay			8.8		
Intersection Capacity Utilization			46.7%	ICU Level of Service	A
Analysis Period (min)			15		



HCM Unsignalized Intersection Capacity Analysis
4: New E-W Road & CC Conn Rd

Synchro 6 Report
2/11/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↘	↙	↑	↘		↑	↘		↑	↘
Sign Control		Free			Free			Stop			Stop	
Grade		-2%			2%			2%			-8%	
Volume (veh/h)	85	555	160	30	175	20	90	1	100	20	1	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	89	584	168	32	184	21	95	1	105	21	1	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									6			6
Median type								Raised			Raised	
Median storage (veh)								0			0	
Upstream signal (ft)		346			999							
pX, platoon unblocked				0.95			0.95	0.95	0.95	0.95	0.95	
vC, conflicting volume	205			753			1024	1032	584	1074	1189	195
vC1, stage 1 conf vol							763	763		258	258	
vC2, stage 2 conf vol							261	268		816	932	
vCu, unblocked vol	205			739			1026	1033	561	1078	1200	195
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			96			54	100	79	86	99	97
cM capacity (veh/h)	1366			822			207	215	499	148	173	847

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	89	584	168	32	205	201	48
Volume Left	89	0	0	32	0	95	21
Volume Right	0	0	168	0	21	105	26
cSH	1366	1700	1700	822	1700	435	327
Volume to Capacity	0.07	0.34	0.10	0.04	0.12	0.46	0.15
Queue Length 95th (ft)	5	0	0	3	0	60	13
Control Delay (s)	7.8	0.0	0.0	9.6	0.0	24.8	20.3
Lane LOS	A			A		C	C
Approach Delay (s)	0.8			1.3		24.8	20.3
Approach LOS						C	C

Intersection Summary			
Average Delay		5.2	
Intersection Capacity Utilization	54.2%		ICU Level of Service A
Analysis Period (min)	15		



HCM Unsignalized Intersection Capacity Analysis
8: Dunbarton Road & Connector Road

Synchro 6 Report
2/13/2013



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↘		↙	↗
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	20	310	370	20	365	280
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	326	389	21	384	295
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage (veh)	0					
Upstream signal (ft)						1264
pX, platoon unblocked						
vC, conflicting volume	1463	400			411	
vC1, stage 1 conf vol	400					
vC2, stage 2 conf vol	1063					
vCu, unblocked vol	1463	400			411	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	84	50			67	
cM capacity (veh/h)	135	650			1148	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	21	326	411	384	295
Volume Left	21	0	0	384	0
Volume Right	0	326	21	0	0
cSH	135	650	1700	1148	1700
Volume to Capacity	0.16	0.50	0.24	0.33	0.17
Queue Length 95th (ft)	13	71	0	37	0
Control Delay (s)	36.6	16.0	0.0	9.7	0.0
Lane LOS	E	C		A	
Approach Delay (s)	17.2		0.0	5.5	
Approach LOS	C				

Intersection Summary					
Average Delay			6.8		
Intersection Capacity Utilization		54.2%		ICU Level of Service	A
Analysis Period (min)		15			



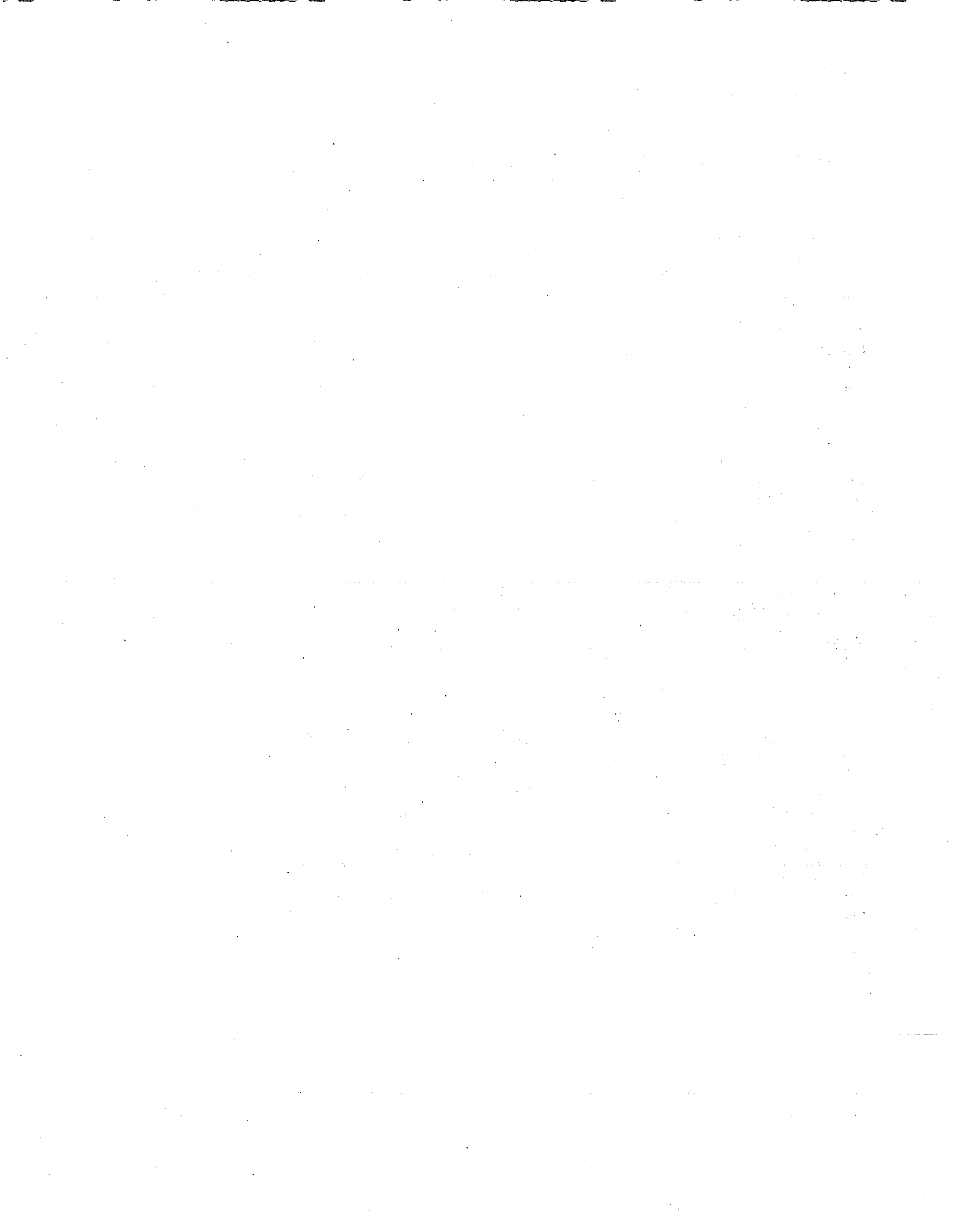
HCM Unsignalized Intersection Capacity Analysis
4: New E-W Road & CC Conn Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↘	↙	↑			↑	↘		↑	↘
Sign Control		Free			Free			Stop			Stop	
Grade		-2%			2%			2%			-8%	
Volume (veh/h)	25	220	300	150	360	10	25	1	45	50	1	150
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	26	232	316	158	379	11	26	1	47	53	1	158
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									6			6
Median type							Raised			Raised		
Median storage (veh)							0			0		
Upstream signal (ft)		346			999							
pX, platoon unblocked												
vC, conflicting volume	389			547			1058	989	232	1008	1300	384
vC1, stage 1 conf vol							284	284		700	700	
vC2, stage 2 conf vol							774	705		308	600	
vCu, unblocked vol	389			547			1058	989	232	1008	1300	384
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			85			82	100	94	74	99	76
cM capacity (veh/h)	1169			1022			144	212	807	200	163	664

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	26	232	316	158	389	75	212
Volume Left	26	0	0	158	0	26	53
Volume Right	0	0	316	0	11	47	158
cSH	1169	1700	1700	1022	1700	401	787
Volume to Capacity	0.02	0.14	0.19	0.15	0.23	0.19	0.27
Queue Length 95th (ft)	2	0	0	14	0	17	27
Control Delay (s)	8.2	0.0	0.0	9.2	0.0	19.0	16.5
Lane LOS	A			A		C	C
Approach Delay (s)	0.4			2.6		19.0	16.5
Approach LOS						C	C

Intersection Summary			
Average Delay		4.7	
Intersection Capacity Utilization	42.4%		ICU Level of Service A
Analysis Period (min)		15	



HCM Unsignalized Intersection Capacity Analysis
 4: New E-W Road & CC Conn Rd

Synchro 6 Report
 2/13/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↘	↙	↑			↑	↘		↑	↘
Sign Control		Free			Free			Stop			Stop	
Grade		-2%			2%			2%			-8%	
Volume (veh/h)	85	555	160	30	175	20	90	1	100	20	1	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	89	584	168	32	184	21	95	1	105	21	1	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									6			6
Median type								Raised			Raised	
Median storage (veh)								0			0	
Upstream signal (ft)		346			999							
pX, platoon unblocked				0.94			0.94	0.94	0.94	0.94	0.94	
vC, conflicting volume	205			753			1024	1032	584	1074	1189	195
vC1, stage 1 conf vol							763	763		258	258	
vC2, stage 2 conf vol							261	268		816	932	
vCu, unblocked vol	205			738			1026	1033	559	1079	1201	195
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			96			54	100	79	86	99	97
cM capacity (veh/h)	1366			819			206	214	498	147	172	847

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	89	584	168	32	205	201	48
Volume Left	89	0	0	32	0	95	21
Volume Right	0	0	168	0	21	105	26
cSH	1366	1700	1700	819	1700	433	325
Volume to Capacity	0.07	0.34	0.10	0.04	0.12	0.46	0.15
Queue Length 95th (ft)	5	0	0	3	0	60	13
Control Delay (s)	7.8	0.0	0.0	9.6	0.0	24.9	20.4
Lane LOS	A			A		C	C
Approach Delay (s)	0.8			1.3		24.9	20.4
Approach LOS						C	C

Intersection Summary			
Average Delay		5.3	
Intersection Capacity Utilization	54.2%		ICU Level of Service A
Analysis Period (min)	15		





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↷	↶		↶	↷
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	20	470	300	20	410	375
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	495	316	21	432	395
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL					
Median storage veh	0					
Upstream signal (ft)						1264
pX, platoon unblocked						
vC, conflicting volume	1584	326			337	
vC1, stage 1 conf vol	326					
vC2, stage 2 conf vol	1258					
vCu, unblocked vol	1584	326			337	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	81	31			65	
cM capacity (veh/h)	109	715			1222	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	21	495	337	432	395
Volume Left	21	0	0	432	0
Volume Right	0	495	21	0	0
cSH	109	715	1700	1222	1700
Volume to Capacity	0.19	0.69	0.20	0.35	0.23
Queue Length 95th (ft)	17	140	0	40	0
Control Delay (s)	45.6	20.6	0.0	9.5	0.0
Lane LOS	E	C		A	
Approach Delay (s)	21.6		0.0	5.0	
Approach LOS	C				

Intersection Summary					
Average Delay			9.1		
Intersection Capacity Utilization			53.0%	ICU Level of Service	A
Analysis Period (min)			15		

