TECHNICAL MEMORANDUM

TO:	Gary Uter, BRA Project Manager	DATE:	October 6, 2015
FROM:	Brian Beisel, PTP	HSH PROJECT NO.:	2014121.00
SUBJECT:	Hancock Street/Pleasant Street Improvements		

As part of the DOT BLOCK project, the intersection of Hancock Street/Pleasant Street will be modified to create a safer experience for motorists, bicyclists, and pedestrians. The existing intersection is a non standard three way intersection with four diverter medians. Hancock Street approaches from the south and west, while Pleasant Street approaches from the north. As part of the project, a fourth leg approaching the intersection from the east will be added to the intersection. The eastbound Hancock Street approach operates under stop control. The northbound Hancock Street and Pleasant Street approach are free movements. A northbound left turn for motorists traveling on Hancock Street and staying on Hancock Street operates under yield control via a sign located on one of the diverter medians in the middle of the intersection. The majority of motorists enter this intersection assuming a yield control to motorists already in the intersection.

There are several major movements through the intersection that operate in direct conflict of each other. The existing weekday a.m. peak hour and weekday p.m. peak hour traffic volumes are attached to this memorandum.

Howard Stein Hudson (HSH) has prepared conceptual designs for three improvement alternatives including; a modern roundabout, a four-way signalized intersection, and two offset three-way signalized intersections. A conceptual design for each of the three alternatives is attached to this memorandum. HSH has also conducted traffic operations analysis for the three alternatives during the weekday a.m. peak hour and the weekday p.m. peak hour. This memorandum contains capacity analysis summary tables for the three alternatives during both peak hours at the Hancock Street/Pleasant Street intersection, as well as the Glovers Corner intersections (Dorchester Avenue/Hancock Street/Hoyt Street and Dorchester Avenue/Freeport Street/East Street).

No-Build Traffic Operations Analysis

Table 1 and Table 2 summarize the No-Build operations, which are included for comparison purposes.

Table 1. No-Build (2020) Condition Capacity Analysis Summary, a.m. Peak Hour

Intersection/Approach	LOS	Delay (s)	V/C Ratio	50th Percentile Queue (ft)	95th Percentile Queue (ft)
Signalized Intersections					
Dorchester Ave at Hancock St	**C**	**23.5**	**-**	**-**	**-**
Hancock Street EB right | right	D	40.4	0.62	123	178
Hoyt Street WB left/thru/right	D	40.0	0.19	21	52
Dorchester Avenue NB left	C	27.7	0.73	100	#355
Dorchester Avenue NB thru/right	A	5.9	0.48	40	73
Dorchester Avenue SB left/thru | thru/right	C	24.3	0.38	91	203
Dorchester Ave at Freeport St	**C**	**20.9**	**-**	**-**	**-**
East Street EB left/thru/right	E	60.0	0.76	126	#235
Freeport Street WB right	C	20.9	0.70	83	193
Dorchester Avenue NB thru | thru/right	C	24.4	0.41	111	241
Dorchester Avenue SB left	B	14.9	0.67	35	#263
Dorchester Avenue SB thru	A	8.8	0.37	8	21
Unsignalized Intersections					
Hancock St at Pleasant St	**-**	**-**	**-**	**-**	**-**
Hancock Street EB left/right	D	33.9	0.83	-	-
Hancock Street NB left	C	15.3	0.41	-	-
Hancock Street NB thru	E	48.2	0.91	-	-
Pleasant Street SB thru/right	F	51.1	0.94	-	-

95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
Grey indicates a decrease to LOS E or F from existing conditions.

Table 2. No-Build (2020) Condition Capacity Analysis Summary, p.m. Peak Hour

Intersection/Approach	LOS	Delay (s)	V/C Ratio	50th Percentile Queue (ft)	95th Percentile Queue (ft)
Signalized Intersections					
Dorchester Ave at Hancock St	**C**	**28.8**	**-**	**-**	**-**
Hancock Street EB right | right	D	52.2	0.84	177	#269
Hoyt Street WB left/thru/right	D	41.2	0.30	48	93
Dorchester Avenue NB left	C	22.7	0.60	73	m197
Dorchester Avenue NB thru/right	A	6.8	0.49	50	m74
Dorchester Avenue SB left/thru | thru/right	C	30.7	0.50	135	#290
Dorchester Ave at Freeport St	**C**	**22.0**	**-**	**-**	**-**
East Street EB left/thru/right	E	69.1	0.83	125	#240
Freeport Street WB right	B	16.0	0.61	56	149
Dorchester Avenue NB thru | thru/right	C	23.9	0.36	94	207
Dorchester Avenue SB left	C	23.0	0.82	47	m#387
Dorchester Avenue SB thru	A	4.8	0.44	21	m56
Unsignalized Intersections					
Hancock St at Pleasant St	**-**	**-**	**-**	**-**	**-**
Hancock Street EB left/right	C	18.9	0.56	-	-
Hancock Street NB left	C	15.5	0.49	-	-
Hancock Street NB thru	C	15.4	0.52	-	-
Pleasant Street SB thru/right	F	61.0	1.00	-	-

As shown, the Synchro analysis shows the Glovers Corner intersections are expected to operate at LOS C during the peak hours. This analysis can be used as a baseline to determine that none of the improvement alternatives for the Hancock Street/Pleasant Street intersection will have a detrimental impact on the operations at the Glovers Corner intersections.

The No-Build analysis also shows that even without the DOT BLOCK project, approaches to the Hancock/Pleasant intersection will operate at LOS E or F. Therefore, improvements to this intersection are necessary due to the poor operations in conjunction with the previously discussed nonstandard layout, and lack of pedestrian accommodations.

Roundabout Alternative

The modern roundabout alternative includes a one lane approach from each direction and one circulating lane. Crosswalks would be provided on all four legs of the intersection to provide pedestrian accommodations. The crosswalks include a 6 foot wide, grade separated center median to accommodate a protected two stage crossing. Modern roundabouts have been successfully implemented as traffic calming devices that provide a safe and efficient experience for motorists, bicyclists, and pedestrians, including in urban areas. In fact, the "Go Boston 2030 Draft Report" early action items include the installation of roundabouts as a technique for traffic calming. The analysis results are presented in Table 3 and Table 4.

Table 3. Build (2020) Condition Capacity Analysis Summary, a.m. Peak Hour Roundabout Alternative

Intersection/Approach	LOS	Delay (s)	V/C Ratio	50th Percentile Queue (ft)	95th Percentile Queue (ft)
Signalized Intersections					
Dorchester Ave at Hancock St	**C**	**24.4**	**-**	**-**	**-**
Hancock Street EB right | right	D	41.4	0.65	131	188
Hoyt Street WB left/thru/right	D	40.0	0.19	21	52
Dorchester Avenue NB left	C	29.5	0.75	104	#398
Dorchester Avenue NB thru/right	A	5.9	0.48	39	72
Dorchester Avenue SB left/thru | thru/right	C	24.3	0.38	91	203
Dorchester Ave at Freeport St	**C**	**21.1**	**-**	**-**	**-**
East Street EB left/thru/right	E	60.0	0.76	126	#222
Freeport Street WB right	C	21.6	0.71	88	200
Dorchester Avenue NB thru | thru/right	C	24.5	0.41	112	242
Dorchester Avenue SB left	B	15.6	0.69	35	#285
Dorchester Avenue SB thru	A	2.8	0.38	8	30
Roundabout Intersection					
Hancock St at Pleasant St	**C**	**18.7**	**0.87**	**-**	**-**
Hancock Street EB left/thru/right	B	12.7	0.57	-	90
Site Driveway WB left/thru/right	B	12.9	0.23	-	19
Hancock Street NB left/thru/right	D	32.7	0.87	-	287
Pleasant Street SB thru/right	A	7.2	0.30	-	32

Table 4. Build (2020) Condition Capacity Analysis Summary, p.m. Peak Hour Roundabout Alternative

Intersection/Approach	LOS	Delay (s)	V/C Ratio	50th Percentile Queue (ft)	95th Percentile Queue (ft)
Signalized Intersections					
Dorchester Ave at Hancock St	**C**	**30.2**	**-**	**-**	**-**
Hancock Street EB right | right	D	55.0	0.86	184	#282
Hoyt Street WB left/thru/right	D	41.2	0.30	48	93
Dorchester Avenue NB left	C	25.0	0.64	81	m#223
Dorchester Avenue NB thru/right	A	6.5	0.49	49	m68
Dorchester Avenue SB left/thru | thru/right	C	31.6	0.50	143	#293
Dorchester Ave at Freeport St	**C**	**22.8**	**-**	**-**	**-**
East Street EB left/thru/right	E	69.1	0.83	125	#240
Freeport Street WB right	B	17.5	0.64	65	164
Dorchester Avenue NB thru | thru/right	C	23.9	0.36	96	211
Dorchester Avenue SB left	C	25.3	0.84	56	m#391
Dorchester Avenue SB thru	A	4.7	0.44	26	m56
Unsignalized Roundabouts					
Hancock St at Pleasant St	**B**	**12.3**	**0.66**	**-**	**-**
Hancock Street EB left/thru/right	B	11.1	0.46	-	57
Site Driveway WB left/thru/right	A	8.9	0.13	-	11
Hancock Street NB left/thru/right	C	15.5	0.66	-	132
Pleasant Street SB thru/right	B	11.4	0.51	-	71

95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
Grey indicates a decrease to LOS E or F from existing conditions.

As shown in Table 3 and Table 4, the roundabout alternative is expected to operate at lOS C and LOS B in the weekday a.m. peak hour and weekday p.m. peak hour, respectively. The longest queue expected is on the northbound approach and is expected to be approximately 290 feet (approximately 11 vehicles). This queue would extend to the end of the proposed 240 Hancock Street building. This queue length is only expected during the weekday a.m. peak hour. The rest of the approaches are expected to operate with queue lengths that are less than 100 feet (approximately 4 vehicles) during both peak hours.

Four-Way Signalized Alternative

The four way signalized intersection alternative includes two northbound approach lanes (an 80 foot long left turn lane and a shared through/right turn lane), two eastbound approach lanes (a shared left/through lane and a 95 foot long right turn lane), three southbound lanes (a 40 foot long left turn lane, a through lane, and a 40 foot long right turn lane), and one shared all purpose lane exiting the DOT BLOCK project. Crosswalks would be provided on all four legs of the intersection to provide pedestrian accommodations. The analysis results presented in Table 5 and Table 6 include an exclusive pedestrian phase.

Table 5. Build (2020) Condition Capacity Analysis Summary, a.m. Peak Hour Four-Way Signalized Alternative

Intersection/Approach	LOS	Delay (s)	V/C Ratio	50th Percentile Queue (ft)	95th Percentile Queue (ft)
Dorchester Ave at Hancock St	**C**	**26.2**	**-**	**-**	**-**
Hancock Street EB right | right	D	50.2	0.65	154	m189
Hoyt Street WB left/thru/right	D	40.0	0.19	21	52
Dorchester Avenue NB left	C	24.1	0.75	104	#398
Dorchester Avenue NB thru/right	A	5.2	0.48	39	72
Dorchester Avenue SB left/thru | thru/right	C	24.3	0.38	91	203
Dorchester Ave at Freeport St	**C**	**21.1**	**-**	**-**	**-**
East Street EB left/thru/right	E	60.0	0.76	126	#222
Freeport Street WB right	C	21.6	0.71	88	200
Dorchester Avenue NB thru | thru/right	C	24.5	0.41	112	242
Dorchester Avenue SB left	B	15.5	0.69	35	#284
Dorchester Avenue SB thru	A	2.6	0.38	3	30
Hancock St at Pleasant St	**D**	**48.2**	**-**	**-**	**-**
Hancock Street EB left/thru	D	53.0	0.82	233	#405
Hancock Street EB right	C	33.0	0.22	45	89
Site Driveway WB left/thru/right	E	68.5	0.66	56	#129
Hancock Street NB left	E	73.3	0.87	114	m#199
Hancock Street NB thru/right	D	35.5	0.73	243	342
Pleasant Street SB left	D	36.5	0.03	1	8
Pleasant Street SB thru	E	69.7	0.87	164	#304
Pleasant Street SB right	B	19.2	0.31	95	153

Table 6. Build (2020) Condition Capacity Analysis Summary, p.m. Peak Hour Four-Way Signalized Alternative

Intersection/Approach	LOS	Delay (s)	V/C Ratio	50th Percentile Queue (ft)	95th Percentile Queue (ft)
Dorchester Ave at Hancock St	**C**	**31.8**	**-**	**-**	**-**
Hancock Street EB right | right	E	61.8	0.86	203	#293
Hoyt Street WB left/thru/right	D	41.2	0.30	48	93
Dorchester Avenue NB left	C	25.0	0.64	81	m#223
Dorchester Avenue NB thru/right	A	6.5	0.49	49	m68
Dorchester Avenue SB left/thru | thru/right	C	31.6	0.50	143	#293
Dorchester Ave at Freeport St	**C**	**22.8**	**-**	**-**	**-**
East Street EB left/thru/right	E	69.1	0.83	125	#240
Freeport Street WB right	B	17.5	0.64	65	164
Dorchester Avenue NB thru | thru/right	C	23.9	0.36	96	211
Dorchester Avenue SB left	C	25.2	0.84	56	m#392
Dorchester Avenue SB thru	A	4.6	0.44	26	m57
Hancock St at Pleasant St	**D**	**37.6**	**-**	**-**	**-**
Hancock Street EB left/thru	E	61.7	0.83	160	#330
Hancock Street EB right	D	38.0	0.24	36	81
Site Driveway WB left/thru/right	E	58.2	0.52	44	#95
Hancock Street NB left	F	92.3	0.99	157	#317
Hancock Street NB thru/right	B	15.8	0.32	122	223
Pleasant Street SB left	C	22.0	0.02	2	m4
Pleasant Street SB thru	C	29.0	0.58	200	m#368
Pleasant Street SB right	B	11.0	0.46	72	m268

95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

The intersection is expected to operate at LOS D during the peak hours. However, the Hancock Street northbound and Pleasant Street southbound approaches are expected to operate at LOS E or LOS F. In addition, the northbound left turn queue and southbound right turn queue are both longer than the respective storage lanes.

Offset Three-Way Signalized Intersections Alternative

The two offset three-way signalized intersections alternative includes two intersections that operate under one signal controller. The intersections include Hancock Street/Pleasant Street (southern intersection) and Pleasant Street/Site Driveway (northern intersection). The design includes two northbound approach lanes (an 80 foot long left turn lane and a shared through/right turn lane), two eastbound approach lanes (a 60 foot long left turn lane and a right turn lane), two southbound lanes (a shared left turn/through lane and a 50 foot long through lane), and one shared all purpose lane exiting the DOT BLOCK project. In between the northern and southern intersections there would be a shared northbound through/right turn lane, a southbound through lane, and a southbound right turn lane. Crosswalks would be provided across each leg of the intersections; however, a crosswalk would not exist between the signalized intersections. The analysis results presented in Table 5 and Table 6 include an exclusive pedestrian phase.

Table 7. Build (2020) Condition Capacity Analysis Summary, a.m. Peak Hour Three Way Offset Signalized Alternative

Intersection/Approach	LOS	Delay (s)	V/C Ratio	50th Percentile Queue (ft)	95th Percentile Queue (ft)
Signalized Intersections					
Dorchester Ave at Hancock St	**C**	**23.2**	**-**	**-**	**-**
Hancock Street EB right | right	D	43.4	0.69	158	197
Hoyt Street WB left/thru/right	D	39.3	0.17	22	53
Dorchester Avenue NB left	C	22.8	0.69	92	#330
Dorchester Avenue NB thru/right	A	6.0	0.48	39	72
Dorchester Avenue SB left/thru | thru/right	C	23.7	0.34	82	184
Dorchester Ave at Freeport St	**C**	**21.1**	**-**	**-**	**-**
East Street EB left/thru/right	E	60.0	0.76	126	#222
Freeport Street WB right	C	21.0	0.71	88	200
Dorchester Avenue NB thru | thru/right	C	24.4	0.41	112	242
Dorchester Avenue SB left	B	15.2	0.69	32	#284
Dorchester Avenue SB thru	A	2.0	0.38	3	37
Hancock St at Pleasant St	**D**	**35.3**	**-**	**-**	**-**
Hancock Street EB left	D	52.9	0.83	215	#430
Hancock Street EB right	C	32.0	0.22	42	91
Hancock Street NB left	D	52.2	0.62	126	m187
Hancock Street NB thru	C	33.4	0.60	266	#339
Pleasant Street SB thru	B	18.8	0.39	76	139
Pleasant Street SB right	B	19.6	0.31	71	195
Pleasant Street at Site Driveway	**B**	**11.3**	-	-	-
Site Driveway WB left/right	D	46.2	0.43	53	94
Pleasant Street NB thru/right	A	3.6	0.63	8	38
Pleasant Street SB left/thru | thru	B	17.8	0.30	79	175

Table 8. Build (2020) Condition Capacity Analysis Summary, p.m. Peak Hour Three Way Offset Signalized Alternative

Intersection/Approach	LOS	Delay (s)	V/C Ratio	50th Percentile Queue (ft)	95th Percentile Queue (ft)
Signalized Intersections					
Dorchester Ave at Hancock St	**C**	**27.6**	**-**	**-**	**-**
Hancock Street EB right | right	D	44.4	0.86	144	#286
Hoyt Street WB left/thru/right	D	41.2	0.30	48	93
Dorchester Avenue NB left	C	25.0	0.64	81	m#223
Dorchester Avenue NB thru/right	A	6.5	0.49	49	m68
Dorchester Avenue SB left/thru | thru/right	C	31.7	0.50	146	#292
Dorchester Ave at Freeport St	**C**	**22.9**	**-**	**-**	**-**
East Street EB left/thru/right	E	68.7	0.82	125	#240
Freeport Street WB right	B	17.5	0.64	65	164
Dorchester Avenue NB thru | thru/right	C	23.9	0.36	96	211
Dorchester Avenue SB left	C	25.5	0.84	58	m#392
Dorchester Avenue SB thru	A	5.0	0.44	26	m57
Hancock St at Pleasant St	**D**	**42.9**	**-**	**-**	**-**
Hancock Street EB left	E	61.1	0.83	173	#311
Hancock Street EB right	D	36.9	0.24	39	80
Hancock Street NB left	E	73.4	0.87	150	#296
Hancock Street NB thru	D	40.7	0.58	157	287
Pleasant Street SB thru	D	41.9	0.55	265	m345
Pleasant Street SB right	B	17.5	0.86	16	m391
Pleasant Street at Site Driveway	**D**	**52.4**	-	-	-
Site Driveway WB left/right	C	29.7	0.14	29	76
Pleasant Street NB thru/right	A	3.3	0.61	14	m13
Pleasant Street SB left/thru | thru	F	89.6	0.77	246	333

The two offset intersections are expected to operate at LOS D during both peak hours. As with the four way intersection alternative, the Hancock Street northbound and Pleasant Street southbound approaches are expected to operate at LOS E or LOS F. The Hancock Street eastbound approach is also expected to operate at LOS E. In addition, the queue lengths on all approaches are extensive, with the northbound left turn queue, eastbound left turn queue, and southbound right turn queue are all longer than the respective storage lanes.

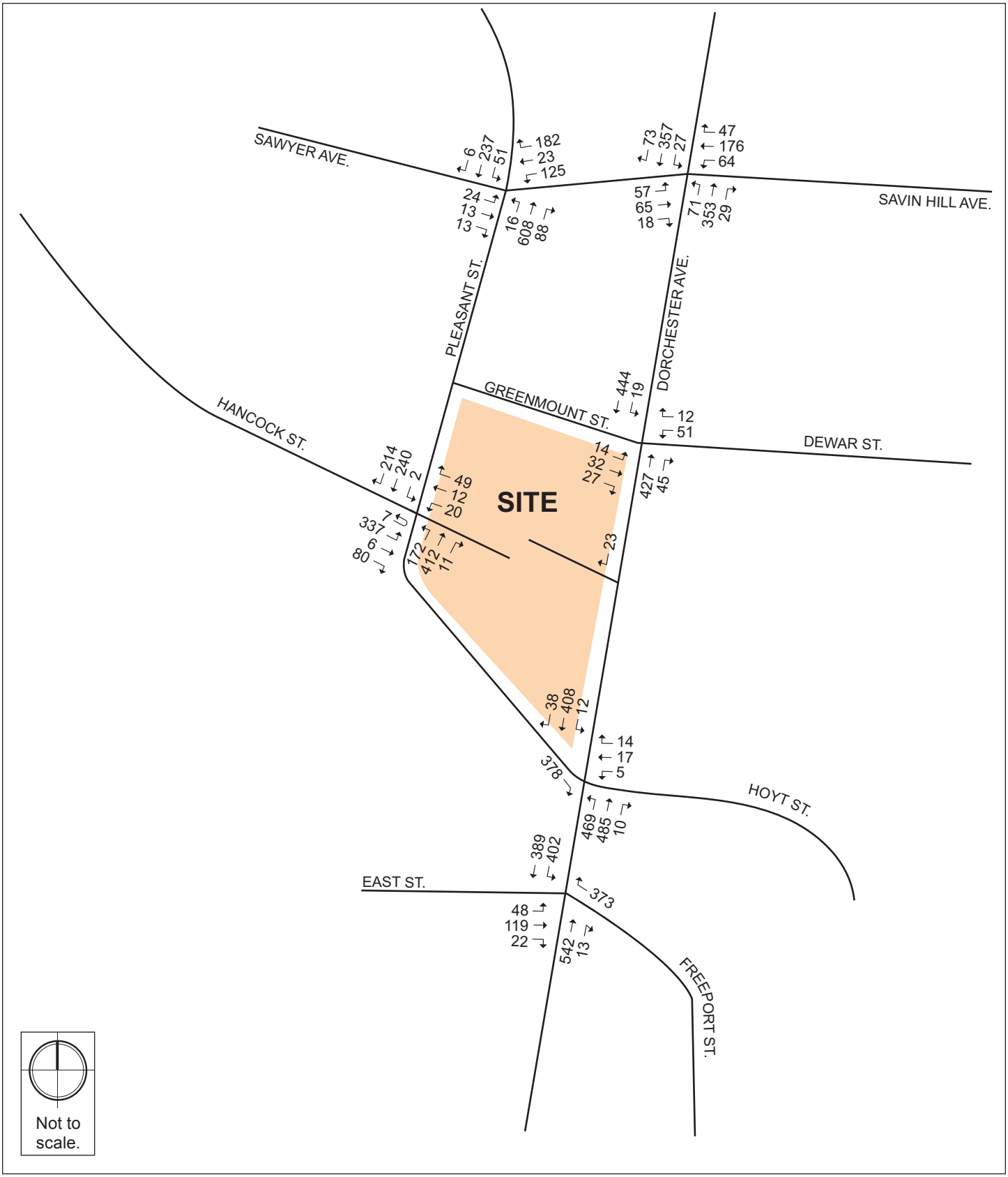

Figure 11.
Build (2020) Condition Traffic Volumes, Weekday a.m. Peak Hour

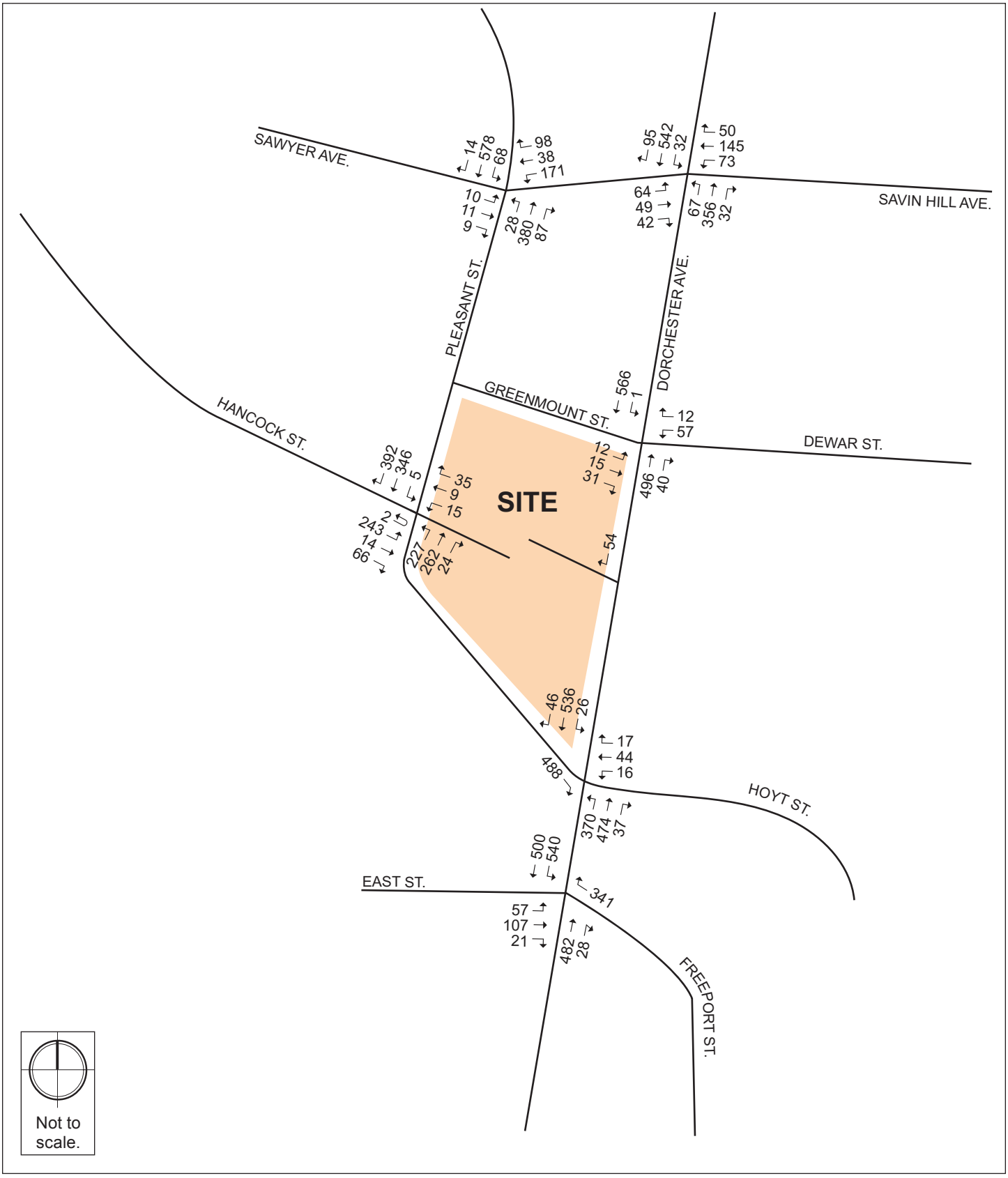

Figure 12.
Build (2020) Condition Traffic Volumes, Weekday p.m. Peak Hour

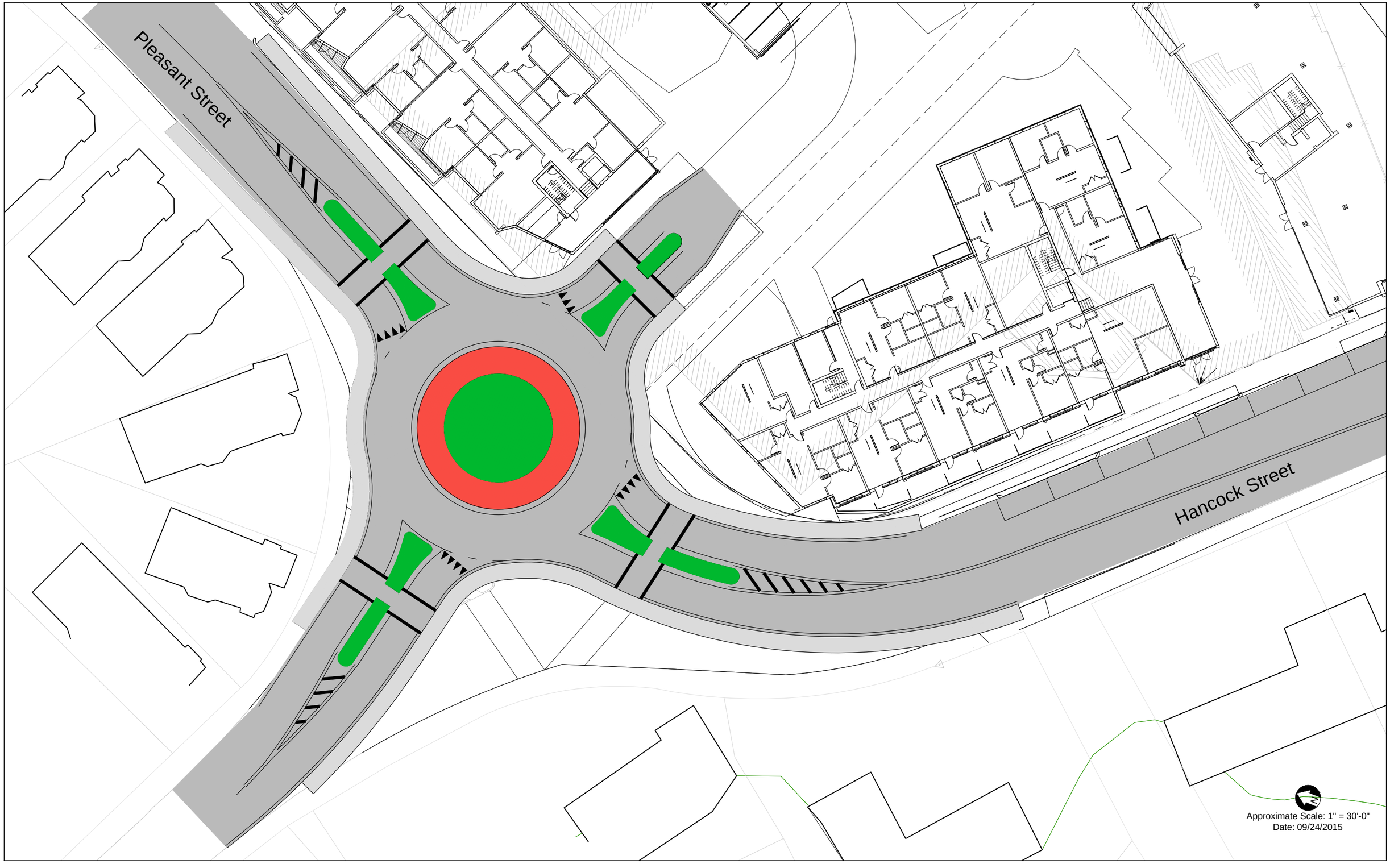

Figure 1. ***DOT BLOCK/HANCOCK/PLEASANT--ROUNDABOUT CONCEPT***

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Brian Beisel

Figure 2. ***DOT BLOCK/HANCOCK/PLEASANT--SIGNALIZED INTERSECTION CONCEPT***

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Brian Beisel

Figure 3. ***DOT BLOCK/HANCOCK/PLEASANT–SIGNALIZED OFFSET INTERSECTIONS CONCEPT***

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	0	0	358	5	17	14	458	485	10	12	408	38	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	12	11	14	11	11	11	11	12	12	12	
Storage Length (ft)	0		110	0		0	0		0	0		100	
Storage Lanes	0		1	0		0	1		0	0		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	
Ped Bike Factor					0.99			1.00			1.00		
Frt			0.850		0.947			0.997			0.988		
Flt Protected					0.993		0.950				0.999		
Satd. Flow (prot)	0	0	2787	0	1417	0	1694	1709	0	0	3260	0	
Flt Permitted					0.993		0.395				0.938		
Satd. Flow (perm)	0	0	2787	0	1417	0	704	1709	0	0	3061	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		854			195			189			689		
Travel Time (s)		19.4			4.4			4.3			15.7		
Confl. Bikes (#/hr)						1			13			3	
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	2%	20%	53%	14%	3%	6%	60%	33%	7%	24%	
Adj. Flow (vph)	0	0	377	5	18	15	498	527	11	13	443	41	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	377	0	38	0	498	538	0	0	497	0	
Turn Type			Over	Perm	NA		D.P+P	NA		Perm	NA		
Protected Phases			5		6		5	1 5			1		2
Permitted Phases				6			1			1			
Detector Phase			5	6	6		5	1 5		1	1		
Switch Phase													
Minimum Initial (s)			8.0	10.0	10.0		8.0			8.0	8.0		4.0
Minimum Split (s)			13.0	15.0	15.0		13.0			13.0	13.0		26.0
Total Split (s)			25.0	19.0	19.0		25.0			30.0	30.0		26.0
Total Split (%)			25.0%	19.0%	19.0%		25.0%			30.0%	30.0%		26%
Maximum Green (s)			20.0	14.0	14.0		20.0			25.0	25.0		20.0
Yellow Time (s)			3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)			2.0	2.0	2.0		2.0			2.0	2.0		4.0
Lost Time Adjust (s)			-2.0		-1.0		-2.0				-1.0		
Total Lost Time (s)			3.0		4.0		3.0				4.0		
Lead/Lag			Lead	Lag	Lag		Lead			Lead	Lead		Lag
Lead-Lag Optimize?													
Vehicle Extension (s)			4.0	2.0	2.0		4.0			4.0	4.0		2.0
Recall Mode			None	None	None		None			C-Max	C-Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													20
Act Effct Green (s)			22.0		14.0		65.6	66.0			42.6		
Actuated g/C Ratio			0.22		0.14		0.66	0.66			0.43		
v/c Ratio			0.62		0.19		0.73	0.48			0.38		
Control Delay			40.2		40.0		23.1	5.2			24.3		
Queue Delay			0.2		0.0		4.6	0.8			0.0		
Total Delay			40.4		40.0		27.7	5.9			24.3		
LOS			D		D		C	A			C		
Approach Delay					40.0			16.4			24.3		
Approach LOS					D			B			C		
Queue Length 50th (ft)			123		21		100	40			91		
Queue Length 95th (ft)			178		52		#355	73			203		
Internal Link Dist (ft)		774			115			109			609		
Turn Bay Length (ft)			110										
Base Capacity (vph)			613		212		679	1128			1304		
Starvation Cap Reductn			0		0		118	299			0		
Spillback Cap Reductn			19		0		0	0			37		
Storage Cap Reductn			0		0		0	0			0		
Reduced v/c Ratio			0.63		0.18		0.89	0.65			0.39		

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 23.5		Intersection LOS: C	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

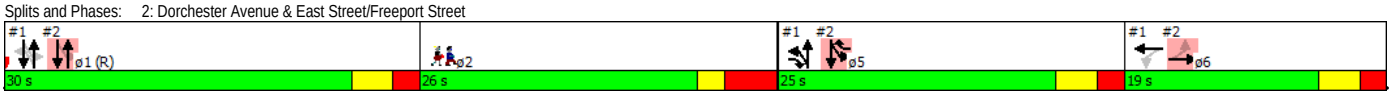
Splits and Phases: 1: Dorchester Avenue & Hancock Street/Hoyt Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	48	119	22	0	0	367	0	538	13	390	381	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	15	12	12	12	11	11	12	
Storage Length (ft)	0		0	0		0	0		100	0		0	
Storage Lanes	0		0	0		1	0		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor								1.00					
Frt		0.984				0.865		0.996					
Flt Protected		0.987								0.950			
Satd. Flow (prot)	0	1932	0	0	0	1722	0	3458	0	1711	1701	0	
Flt Permitted		0.987								0.330			
Satd. Flow (perm)	0	1932	0	0	0	1722	0	3458	0	594	1701	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)						*250							
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		315			326			2596			189		
Travel Time (s)		7.2			7.4			59.0			4.3		
Confl. Bikes (#/hr)									4			7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	13%	6%	10%	0%	0%	5%	0%	4%	0%	2%	8%	0%	
Adj. Flow (vph)	52	129	24	0	0	399	0	585	14	424	414	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	205	0	0	0	399	0	599	0	424	414	0	
Turn Type	Perm	NA				Over		NA		D.P+P	NA		
Protected Phases		6				5		1		5	1 5		2
Permitted Phases	6									1			
Detector Phase	6	6				5		1		5	1 5		
Switch Phase													
Minimum Initial (s)	10.0	10.0				8.0		8.0		8.0			4.0
Minimum Split (s)	15.0	15.0				13.0		13.0		13.0			26.0
Total Split (s)	19.0	19.0				25.0		30.0		25.0			26.0
Total Split (%)	19.0%	19.0%				25.0%		30.0%		25.0%			26%
Maximum Green (s)	14.0	14.0				20.0		25.0		20.0			20.0
Yellow Time (s)	3.0	3.0				3.0		3.0		3.0			2.0
All-Red Time (s)	2.0	2.0				2.0		2.0		2.0			4.0
Lost Time Adjust (s)		-1.0				-2.0		-1.0		-2.0			
Total Lost Time (s)		4.0				3.0		4.0		3.0			
Lead/Lag	Lag	Lag				Lead		Lead		Lead			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0				4.0		4.0		4.0			2.0
Recall Mode	None	None				None		C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													20
Act Effct Green (s)		14.0				22.0		42.6		65.6	66.0		
Actuated g/C Ratio		0.14				0.22		0.43		0.66	0.66		
v/c Ratio		0.76				0.70		0.41		0.67	0.37		
Control Delay		60.0				20.4		24.4		14.4	1.9		
Queue Delay		0.0				0.6		0.0		0.5	0.6		
Total Delay		60.0				20.9		24.4		14.9	2.6		
LOS		E				C		C		B	A		
Approach Delay		60.0						24.4			8.8		
Approach LOS		E						C			A		
Queue Length 50th (ft)		126				83		111		35	8		
Queue Length 95th (ft)		#222				193		241		#263	21		
Internal Link Dist (ft)		235			246			2516			109		
Turn Bay Length (ft)													
Base Capacity (vph)		289				573		1474		635	1122		
Starvation Cap Reductn		0				0		0		40	383		
Spillback Cap Reductn		0				30		84		0	0		
Storage Cap Reductn		0				0		0		0	0		
Reduced v/c Ratio		0.71				0.73		0.43		0.71	0.56		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 20.9 Intersection LOS: C
Intersection Capacity Utilization 58.3% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Dorchester Avenue & East Street/Freeport Street



Movement	EBU	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations							
Sign Control		Yield			Yield	Yield	
Volume (vph)	7	337	80	172	412	240	214
Peak Hour Factor	0.91	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	366	87	187	448	261	233

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total (vph)	366	87	187	448	493
Volume Left (vph)	366	0	187	0	0
Volume Right (vph)	0	87	0	0	233
Hadj (s)	0.53	-0.63	0.65	0.03	-0.27
Departure Headway (s)	8.2	7.0	8.0	7.4	6.8
Degree Utilization, x	0.83	0.17	0.41	0.91	0.94
Capacity (veh/h)	431	500	443	475	515
Control Delay (s)	39.5	10.2	15.3	48.2	51.1
Approach Delay (s)	33.9		38.5		51.1
Approach LOS	D		E		F

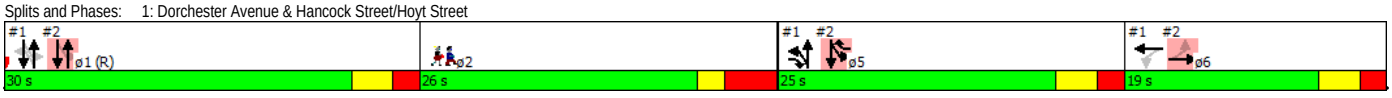
Intersection Summary				
Delay	41.1			
Level of Service	E			
Intersection Capacity Utilization	70.4%	ICU Level of Service		C
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	0	0	473	16	44	17	346	474	37	26	536	46	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	12	11	14	11	11	11	11	12	12	12	
Storage Length (ft)	0		110	0		0	0		0	0		100	
Storage Lanes	0		1	0		0	1		0	0		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	
Ped Bike Factor								1.00			1.00		
Frt			0.850		0.971			0.989			0.989		
Flt Protected					0.990		0.950				0.998		
Satd. Flow (prot)	0	0	2760	0	1923	0	1728	1672	0	0	3323	0	
Flt Permitted					0.990		0.301				0.915		
Satd. Flow (perm)	0	0	2760	0	1923	0	547	1672	0	0	3047	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		854			195			189			689		
Travel Time (s)		19.4			4.4			4.3			15.7		
Confl. Bikes (#/hr)									3			9	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	3%	0%	0%	6%	1%	2%	92%	76%	4%	2%	
Adj. Flow (vph)	0	0	509	17	48	18	368	504	39	28	570	49	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	509	0	83	0	368	543	0	0	647	0	
Turn Type			Over	Perm	NA		D.P+P	NA		Perm	NA		
Protected Phases			5		6		5	1 5			1		2
Permitted Phases				6			1			1			
Detector Phase			5	6	6		5	1 5		1	1		
Switch Phase													
Minimum Initial (s)			8.0	10.0	10.0		8.0			8.0	8.0		4.0
Minimum Split (s)			14.0	15.0	15.0		14.0			13.0	13.0		26.0
Total Split (s)			25.0	19.0	19.0		25.0			30.0	30.0		26.0
Total Split (%)			25.0%	19.0%	19.0%		25.0%			30.0%	30.0%		26%
Maximum Green (s)			20.0	14.0	14.0		20.0			25.0	25.0		20.0
Yellow Time (s)			3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)			2.0	2.0	2.0		2.0			2.0	2.0		4.0
Lost Time Adjust (s)			-2.0		-1.0		-2.0				-1.0		
Total Lost Time (s)			3.0		4.0		3.0				4.0		
Lead/Lag			Lead	Lag	Lag		Lead			Lead	Lead		Lag
Lead-Lag Optimize?													
Vehicle Extension (s)			4.0	2.0	2.0		4.0			4.0	4.0		2.0
Recall Mode			None	None	None		None			C-Max	C-Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													17
Act Effct Green (s)			22.0		14.3		65.3	65.7			42.3		
Actuated g/C Ratio			0.22		0.14		0.65	0.66			0.42		
v/c Ratio			0.84		0.30		0.60	0.49			0.50		
Control Delay			51.1		41.2		20.3	6.1			30.6		
Queue Delay			1.0		0.0		2.4	0.7			0.0		
Total Delay			52.2		41.2		22.7	6.8			30.7		
LOS			D		D		C	A			C		
Approach Delay					41.2			13.2			30.7		
Approach LOS					D			B			C		
Queue Length 50th (ft)			177		48		73	50			135		
Queue Length 95th (ft)			#269		93		m197	m74			#290		
Internal Link Dist (ft)		774			115			109			609		
Turn Bay Length (ft)			110										
Base Capacity (vph)			607		288		616	1097			1287		
Starvation Cap Reductn			0		0		138	261			0		
Spillback Cap Reductn			18		0		0	0			38		
Storage Cap Reductn			0		0		0	0			0		
Reduced v/c Ratio			0.86		0.29		0.77	0.65			0.52		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 28.8 Intersection LOS: C
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Dorchester Avenue & Hancock Street/Hoyt Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	57	107	21	0	0	327	0	473	28	531	494	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	15	12	12	12	11	11	12	
Storage Length (ft)	0		0	0		0	0		100	0		0	
Storage Lanes	0		0	0		1	0		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor		1.00						1.00					
Frt		0.985				0.865		0.992					
Flt Protected		0.985								0.950			
Satd. Flow (prot)	0	1696	0	0	0	1772	0	3464	0	1711	1783	0	
Flt Permitted		0.985								0.377			
Satd. Flow (perm)	0	1696	0	0	0	1772	0	3464	0	679	1783	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)						*250							
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		315			326			2596			189		
Travel Time (s)		7.2			7.4			59.0			4.3		
Confl. Bikes (#/hr)			1						4			5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.96	0.96	0.96	0.97	0.97	0.97	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	48%	14%	0%	0%	0%	2%	0%	3%	7%	2%	3%	0%	
Adj. Flow (vph)	62	116	23	0	0	355	0	493	29	547	509	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	201	0	0	0	355	0	522	0	547	509	0	
Turn Type	Perm	NA				Over		NA		D.P+P	NA		
Protected Phases		6				5		1		5	1 5		2
Permitted Phases	6									1			
Detector Phase	6	6				5		1		5	1 5		
Switch Phase													
Minimum Initial (s)	10.0	10.0				8.0		8.0		8.0			4.0
Minimum Split (s)	15.0	15.0				14.0		13.0		14.0			26.0
Total Split (s)	19.0	19.0				25.0		30.0		25.0			26.0
Total Split (%)	19.0%	19.0%				25.0%		30.0%		25.0%			26%
Maximum Green (s)	14.0	14.0				20.0		25.0		20.0			20.0
Yellow Time (s)	3.0	3.0				3.0		3.0		3.0			2.0
All-Red Time (s)	2.0	2.0				2.0		2.0		2.0			4.0
Lost Time Adjust (s)		-1.0				-2.0		-1.0		-2.0			
Total Lost Time (s)		4.0				3.0		4.0		3.0			
Lead/Lag	Lag	Lag				Lead		Lead		Lead			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0				4.0		4.0		4.0			2.0
Recall Mode	None	None				None		C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													17
Act Effct Green (s)		14.3				22.0		42.3		65.3	65.7		
Actuated g/C Ratio		0.14				0.22		0.42		0.65	0.66		
v/c Ratio		0.83				0.61		0.36		0.82	0.44		
Control Delay		69.1				15.7		23.8		20.9	3.6		
Queue Delay		0.0				0.3		0.0		2.1	1.0		
Total Delay		69.1				16.0		23.9		23.0	4.6		
LOS		E				B		C		C	A		
Approach Delay		69.1						23.9			14.1		
Approach LOS		E						C			B		
Queue Length 50th (ft)		125				56		94		47	21		
Queue Length 95th (ft)		#240				149		207		m#387	m56		
Internal Link Dist (ft)		235			246			2516			109		
Turn Bay Length (ft)													
Base Capacity (vph)		254				584		1463		670	1170		
Starvation Cap Reductn		0				0		0		46	400		
Spillback Cap Reductn		0				29		66		0	0		
Storage Cap Reductn		0				0		0		0	0		
Reduced v/c Ratio		0.79				0.64		0.37		0.88	0.66		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 22.0 Intersection LOS: C
Intersection Capacity Utilization 63.4% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Dorchester Avenue & East Street/Freeport Street

Movement	EBU	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations							
Sign Control		Yield			Yield	Yield	
Volume (vph)	2	243	66	227	262	346	392
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	256	69	247	285	376	426

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total (vph)	256	69	247	285	802
Volume Left (vph)	256	0	247	0	0
Volume Right (vph)	0	69	0	0	426
Hadj (s)	0.50	-0.65	0.52	0.02	-0.30
Departure Headway (s)	7.8	6.7	7.1	6.6	6.0
Degree Utilization, x	0.56	0.13	0.49	0.52	1.00
Capacity (veh/h)	452	525	499	537	802
Control Delay (s)	18.9	9.5	15.5	15.4	61.0
Approach Delay (s)	16.9		15.4		61.0
Approach LOS	C		C		F

Intersection Summary				
Delay	37.7			
Level of Service	E			
Intersection Capacity Utilization	86.1%	ICU Level of Service		E
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	0	0	378	5	17	14	469	485	10	12	408	38	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	12	11	14	11	11	11	11	12	12	12	
Storage Length (ft)	0		110	0		0	0		0	0		100	
Storage Lanes	0		1	0		0	1		0	0		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	
Ped Bike Factor					0.99			1.00			1.00		
Frt			0.850		0.947			0.997			0.988		
Flt Protected					0.993		0.950				0.999		
Satd. Flow (prot)	0	0	2787	0	1417	0	1694	1709	0	0	3260	0	
Flt Permitted					0.993		0.395				0.938		
Satd. Flow (perm)	0	0	2787	0	1417	0	704	1709	0	0	3061	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		839			195			189			689		
Travel Time (s)		19.1			4.4			4.3			15.7		
Confl. Bikes (#/hr)						1			13			3	
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	2%	20%	53%	14%	3%	6%	60%	33%	7%	24%	
Adj. Flow (vph)	0	0	398	5	18	15	510	527	11	13	443	41	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	398	0	38	0	510	538	0	0	497	0	
Turn Type			Over	Perm	NA		D.P+P	NA		Perm	NA		
Protected Phases			5		6		5	1 5			1		2
Permitted Phases				6			1			1			
Detector Phase			5	6	6		5	1 5		1	1		
Switch Phase													
Minimum Initial (s)			8.0	10.0	10.0		8.0			8.0	8.0		4.0
Minimum Split (s)			13.0	15.0	15.0		13.0			13.0	13.0		26.0
Total Split (s)			25.0	19.0	19.0		25.0			30.0	30.0		26.0
Total Split (%)			25.0%	19.0%	19.0%		25.0%			30.0%	30.0%		26%
Maximum Green (s)			20.0	14.0	14.0		20.0			25.0	25.0		20.0
Yellow Time (s)			3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)			2.0	2.0	2.0		2.0			2.0	2.0		4.0
Lost Time Adjust (s)			-2.0		-1.0		-2.0				-1.0		
Total Lost Time (s)			3.0		4.0		3.0				4.0		
Lead/Lag			Lead	Lag	Lag		Lead			Lead	Lead		Lag
Lead-Lag Optimize?													
Vehicle Extension (s)			4.0	2.0	2.0		4.0			4.0	4.0		2.0
Recall Mode			None	None	None		None			C-Max	C-Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													20
Act Effct Green (s)			22.0		14.0		65.6	66.0			42.6		
Actuated g/C Ratio			0.22		0.14		0.66	0.66			0.43		
v/c Ratio			0.65		0.19		0.75	0.48			0.38		
Control Delay			41.2		40.0		24.1	5.2			24.3		
Queue Delay			0.2		0.0		5.4	0.8			0.0		
Total Delay			41.4		40.0		29.5	5.9			24.3		
LOS			D		D		C	A			C		
Approach Delay					40.0			17.4			24.3		
Approach LOS					D			B			C		
Queue Length 50th (ft)			131		21		104	39			91		
Queue Length 95th (ft)			188		52		#398	72			203		
Internal Link Dist (ft)		759			115			109			609		
Turn Bay Length (ft)			110										
Base Capacity (vph)			613		212		679	1128			1304		
Starvation Cap Reductn			0		0		116	303			0		
Spillback Cap Reductn			19		0		0	0			39		
Storage Cap Reductn			0		0		0	0			0		
Reduced v/c Ratio			0.67		0.18		0.91	0.65			0.39		

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 24.4		Intersection LOS: C	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Dorchester Avenue & Hoyt Street

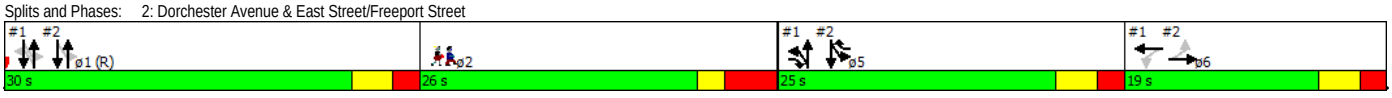
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	48	119	22	0	0	373	0	542	13	402	389	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	15	12	12	12	11	11	12	
Storage Length (ft)	0		0	0		0	0		100	0		0	
Storage Lanes	0		0	0		1	0		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor								1.00					
Frt		0.984				0.865		0.997					
Flt Protected		0.987								0.950			
Satd. Flow (prot)	0	1932	0	0	0	1722	0	3462	0	1711	1701	0	
Flt Permitted		0.987								0.328			
Satd. Flow (perm)	0	1932	0	0	0	1722	0	3462	0	591	1701	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)						*250							
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		315			326			2596			189		
Travel Time (s)		7.2			7.4			59.0			4.3		
Confl. Bikes (#/hr)									4			7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	13%	6%	10%	0%	0%	5%	0%	4%	0%	2%	8%	0%	
Adj. Flow (vph)	52	129	24	0	0	405	0	589	14	437	423	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	205	0	0	0	405	0	603	0	437	423	0	
Turn Type	Perm	NA				Over		NA		D.P+P	NA		
Protected Phases		6				5		1		5	1 5		2
Permitted Phases	6									1			
Detector Phase	6	6				5		1		5	1 5		
Switch Phase													
Minimum Initial (s)	10.0	10.0				8.0		8.0		8.0			4.0
Minimum Split (s)	15.0	15.0				13.0		13.0		13.0			26.0
Total Split (s)	19.0	19.0				25.0		30.0		25.0			26.0
Total Split (%)	19.0%	19.0%				25.0%		30.0%		25.0%			26%
Maximum Green (s)	14.0	14.0				20.0		25.0		20.0			20.0
Yellow Time (s)	3.0	3.0				3.0		3.0		3.0			2.0
All-Red Time (s)	2.0	2.0				2.0		2.0		2.0			4.0
Lost Time Adjust (s)		-1.0				-2.0		-1.0		-2.0			
Total Lost Time (s)		4.0				3.0		4.0		3.0			
Lead/Lag	Lag	Lag				Lead		Lead		Lead			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0				4.0		4.0		4.0			2.0
Recall Mode	None	None				None		C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													20
Act Effct Green (s)		14.0				22.0		42.6		65.6	66.0		
Actuated g/C Ratio		0.14				0.22		0.43		0.66	0.66		
v/c Ratio		0.76				0.71		0.41		0.69	0.38		
Control Delay		60.0				21.0		24.4		15.1	2.1		
Queue Delay		0.0				0.6		0.1		0.6	0.7		
Total Delay		60.0				21.6		24.5		15.6	2.8		
LOS		E				C		C		B	A		
Approach Delay		60.0						24.5			9.3		
Approach LOS		E						C			A		
Queue Length 50th (ft)		126				88		112		35	8		
Queue Length 95th (ft)		#222				200		242		#285	30		
Internal Link Dist (ft)		235			246			2516			109		
Turn Bay Length (ft)													
Base Capacity (vph)		289				573		1475		634	1122		
Starvation Cap Reductn		0				0		0		39	385		
Spillback Cap Reductn		0				31		98		0	0		
Storage Cap Reductn		0				0		0		0	0		
Reduced v/c Ratio		0.71				0.75		0.44		0.73	0.57		

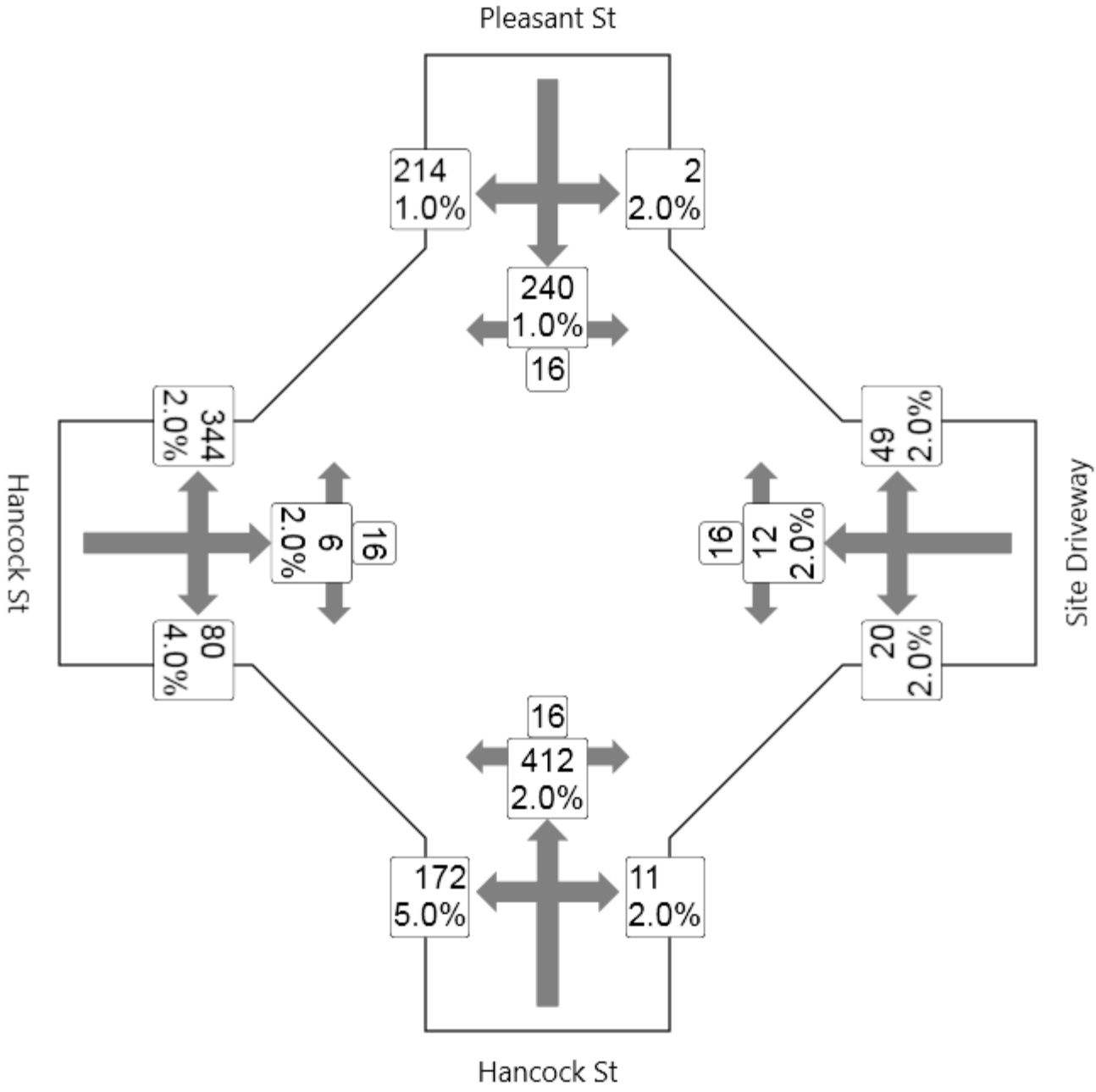
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

* User Entered Value

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Dorchester Avenue & East Street/Freeport Street




Pleasant St
214
1.0%
2
2.0%
240
1.0%
16
344
2.0%
49
2.0%
Hancock St
6
2.0%
16
16
12
2.0%
Site Driveway
80
4.0%
20
2.0%
16
412
2.0%
172
5.0%
11
2.0%
Hancock St

MOVEMENT SUMMARY

Site: AM Peak

Pleasant Street AM
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Hancock St											
3	L	187	5.0	0.872	32.7	LOS D	11.2	287.4	0.96	1.29	15.8
8	T	448	2.0	0.872	32.7	LOS D	11.2	287.4	0.96	1.27	16.0
18	R	12	2.0	0.872	32.7	LOS D	11.2	287.4	0.96	1.28	16.0
Approach		647	2.9	0.872	32.7	LOS D	11.2	287.4	0.96	1.28	16.0
East: Site Driveway											
1	L	22	2.0	0.225	12.9	LOS B	0.7	18.6	0.70	0.94	20.4
6	T	13	2.0	0.225	12.9	LOS B	0.7	18.6	0.70	0.78	21.4
16	R	54	2.0	0.225	12.9	LOS B	0.7	18.6	0.70	0.83	21.3
Approach		89	2.0	0.225	12.9	LOS B	0.7	18.6	0.70	0.85	21.1
North: Pleasant St											
7	L	2	2.0	0.301	7.4	LOS A	1.3	32.0	0.41	0.91	22.4
4	T	261	1.0	0.301	7.4	LOS A	1.3	32.0	0.41	0.51	24.1
14	R	233	1.0	0.266	6.9	LOS A	1.1	27.3	0.40	0.59	23.6
Approach		496	1.0	0.301	7.2	LOS A	1.3	32.0	0.41	0.55	23.8
West: Hancock St											
5	L	374	2.0	0.566	12.7	LOS B	3.5	89.7	0.60	0.85	20.3
2	T	7	2.0	0.566	12.7	LOS B	3.5	89.7	0.60	0.68	21.4
12	R	87	4.0	0.566	12.7	LOS B	3.5	89.7	0.60	0.73	21.2
Approach		468	2.4	0.566	12.7	LOS B	3.5	89.7	0.60	0.83	20.5
All Vehicles		1699	2.1	0.872	18.7	LOS C	11.2	287.4	0.69	0.92	19.2

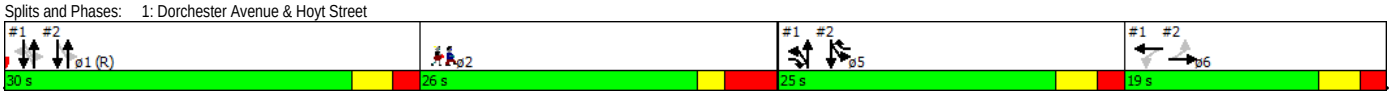
Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Model used. Geometric Delay not included.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	0	0	488	16	44	17	370	474	37	26	536	46	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	12	11	14	11	11	11	11	12	12	12	
Storage Length (ft)	0		110	0		0	0		0	0		100	
Storage Lanes	0		1	0		0	1		0	0		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	
Ped Bike Factor								1.00			1.00		
Frt			0.850		0.971			0.989			0.989		
Flt Protected					0.990		0.950				0.998		
Satd. Flow (prot)	0	0	2760	0	1923	0	1728	1672	0	0	3323	0	
Flt Permitted					0.990		0.301				0.915		
Satd. Flow (perm)	0	0	2760	0	1923	0	547	1672	0	0	3047	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		854			195			189			689		
Travel Time (s)		19.4			4.4			4.3			15.7		
Confl. Bikes (#/hr)									3			9	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	3%	0%	0%	6%	1%	2%	92%	76%	4%	2%	
Adj. Flow (vph)	0	0	525	17	48	18	394	504	39	28	570	49	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	525	0	83	0	394	543	0	0	647	0	
Turn Type			Over	Perm	NA		D.P+P	NA		Perm	NA		
Protected Phases			5		6		5	1 5			1		2
Permitted Phases				6			1			1			
Detector Phase			5	6	6		5	1 5		1	1		
Switch Phase													
Minimum Initial (s)			8.0	10.0	10.0		8.0			8.0	8.0		4.0
Minimum Split (s)			14.0	15.0	15.0		14.0			13.0	13.0		26.0
Total Split (s)			25.0	19.0	19.0		25.0			30.0	30.0		26.0
Total Split (%)			25.0%	19.0%	19.0%		25.0%			30.0%	30.0%		26%
Maximum Green (s)			20.0	14.0	14.0		20.0			25.0	25.0		20.0
Yellow Time (s)			3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)			2.0	2.0	2.0		2.0			2.0	2.0		4.0
Lost Time Adjust (s)			-2.0		-1.0		-2.0				-1.0		
Total Lost Time (s)			3.0		4.0		3.0				4.0		
Lead/Lag			Lead	Lag	Lag		Lead			Lead	Lead		Lag
Lead-Lag Optimize?													
Vehicle Extension (s)			4.0	2.0	2.0		4.0			4.0	4.0		2.0
Recall Mode			None	None	None		None			C-Max	C-Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													17
Act Effct Green (s)			22.0		14.3		65.3	65.7			42.3		
Actuated g/C Ratio			0.22		0.14		0.65	0.66			0.42		
v/c Ratio			0.86		0.30		0.64	0.49			0.50		
Control Delay			53.6		41.2		21.8	5.8			31.5		
Queue Delay			1.4		0.0		3.2	0.8			0.0		
Total Delay			55.0		41.2		25.0	6.5			31.6		
LOS			D		D		C	A			C		
Approach Delay					41.2			14.3			31.6		
Approach LOS					D			B			C		
Queue Length 50th (ft)			184		48		81	49			143		
Queue Length 95th (ft)			#282		93		m#223	m68			#293		
Internal Link Dist (ft)		774			115			109			609		
Turn Bay Length (ft)			110										
Base Capacity (vph)			607		288		616	1097			1287		
Starvation Cap Reductn			0		0		134	270			0		
Spillback Cap Reductn			18		0		0	0			40		
Storage Cap Reductn			0		0		0	0			0		
Reduced v/c Ratio			0.89		0.29		0.82	0.66			0.52		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 30.2 Intersection LOS: C
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Dorchester Avenue & Hoyt Street

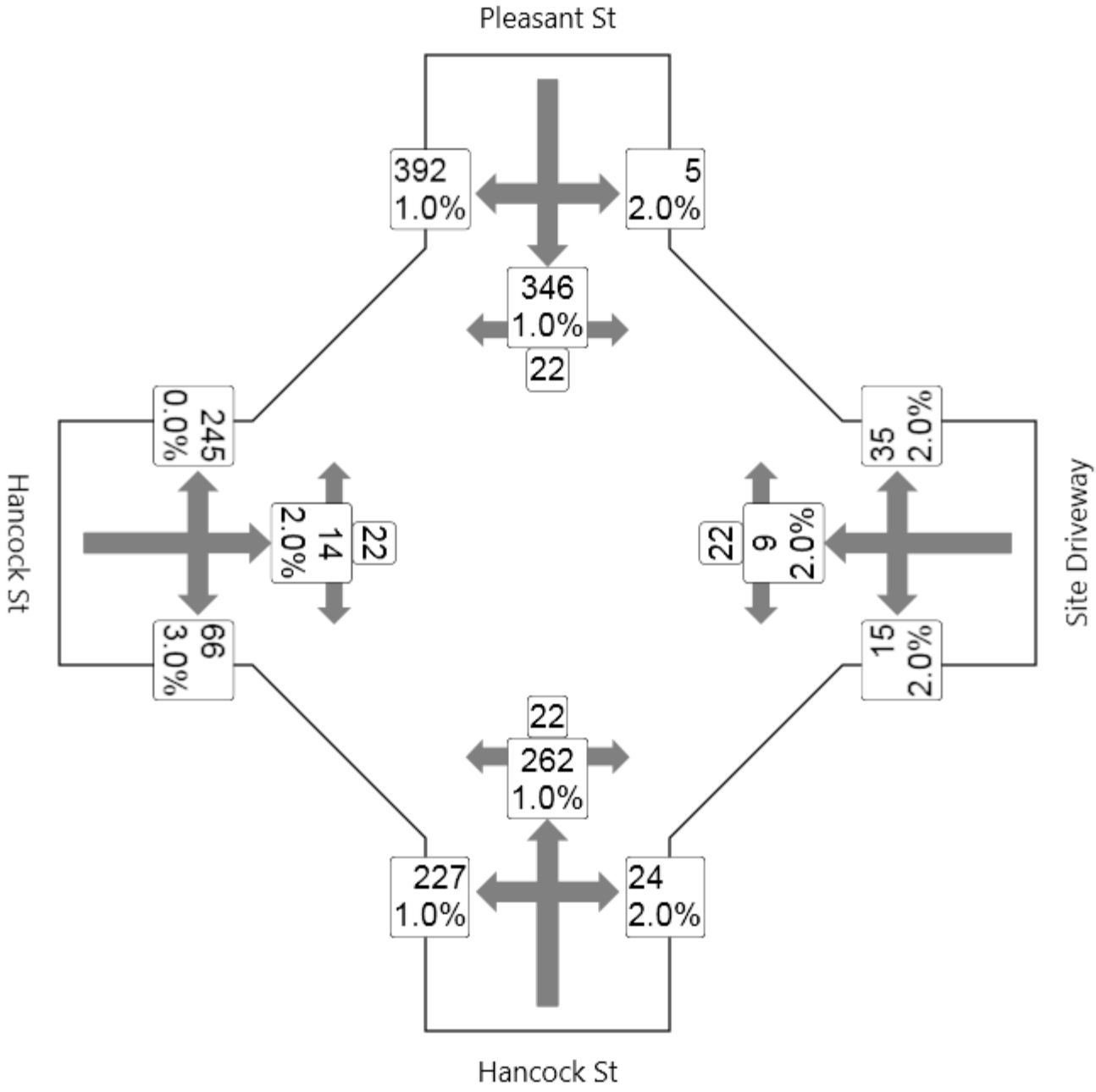


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	57	107	21	0	0	341	0	482	28	540	500	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	15	12	12	12	11	11	12	
Storage Length (ft)	0		0	0		0	0		100	0		0	
Storage Lanes	0		0	0		1	0		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor		1.00						1.00					
Frt		0.985				0.865		0.992					
Flt Protected		0.985								0.950			
Satd. Flow (prot)	0	1696	0	0	0	1772	0	3465	0	1711	1783	0	
Flt Permitted		0.985								0.371			
Satd. Flow (perm)	0	1696	0	0	0	1772	0	3465	0	668	1783	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)						*250							
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		315			326			2596			189		
Travel Time (s)		7.2			7.4			59.0			4.3		
Confl. Bikes (#/hr)			1						4			5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.96	0.96	0.96	0.97	0.97	0.97	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	48%	14%	0%	0%	0%	2%	0%	3%	7%	2%	3%	0%	
Adj. Flow (vph)	62	116	23	0	0	371	0	502	29	557	515	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	201	0	0	0	371	0	531	0	557	515	0	
Turn Type	Perm	NA				Over		NA		D.P+P	NA		
Protected Phases		6				5		1		5	1 5		2
Permitted Phases	6									1			
Detector Phase	6	6				5		1		5	1 5		
Switch Phase													
Minimum Initial (s)	10.0	10.0				8.0		8.0		8.0			4.0
Minimum Split (s)	15.0	15.0				14.0		13.0		14.0			26.0
Total Split (s)	19.0	19.0				25.0		30.0		25.0			26.0
Total Split (%)	19.0%	19.0%				25.0%		30.0%		25.0%			26%
Maximum Green (s)	14.0	14.0				20.0		25.0		20.0			20.0
Yellow Time (s)	3.0	3.0				3.0		3.0		3.0			2.0
All-Red Time (s)	2.0	2.0				2.0		2.0		2.0			4.0
Lost Time Adjust (s)		-1.0				-2.0		-1.0		-2.0			
Total Lost Time (s)		4.0				3.0		4.0		3.0			
Lead/Lag	Lag	Lag				Lead		Lead		Lead			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0				4.0		4.0		4.0			2.0
Recall Mode	None	None				None		C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													17
Act Effct Green (s)		14.3				22.0		42.3		65.3	65.7		
Actuated g/C Ratio		0.14				0.22		0.42		0.65	0.66		
v/c Ratio		0.83				0.64		0.36		0.84	0.44		
Control Delay		69.1				17.1		23.9		22.5	3.7		
Queue Delay		0.0				0.3		0.0		2.7	1.0		
Total Delay		69.1				17.5		23.9		25.3	4.7		
LOS		E				B		C		C	A		
Approach Delay		69.1						23.9			15.4		
Approach LOS		E						C			B		
Queue Length 50th (ft)		125				65		96		56	26		
Queue Length 95th (ft)		#240				164		211		m#391	m56		
Internal Link Dist (ft)		235			246			2516			109		
Turn Bay Length (ft)													
Base Capacity (vph)		254				584		1464		665	1170		
Starvation Cap Reductn		0				0		0		45	401		
Spillback Cap Reductn		0				29		67		0	0		
Storage Cap Reductn		0				0		0		0	0		
Reduced v/c Ratio		0.79				0.67		0.38		0.90	0.67		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 22.8 Intersection LOS: C
Intersection Capacity Utilization 64.2% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Dorchester Avenue & East Street/Freeport Street


Pleasant St
392
1.0%
5
2.0%
346
1.0%
22
Hancock St
245
0.0%
14
2.0%
22
66
3.0%
Site Driveway
35
2.0%
22
9
2.0%
15
2.0%
22
262
1.0%
227
1.0%
24
2.0%
Hancock St

MOVEMENT SUMMARY

Site: PM Peak

Pleasant Street PM
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Hancock St											
3	L	247	1.0	0.662	15.5	LOS C	5.3	132.4	0.69	0.94	19.7
8	T	285	1.0	0.662	15.5	LOS C	5.3	132.4	0.69	0.77	20.6
18	R	27	2.0	0.662	15.5	LOS C	5.3	132.4	0.69	0.82	20.4
Approach		558	1.0	0.662	15.5	LOS C	5.3	132.4	0.69	0.85	20.1
East: Site Driveway											
1	L	16	2.0	0.129	8.9	LOS A	0.4	10.6	0.59	0.92	21.7
6	T	10	2.0	0.129	8.9	LOS A	0.4	10.6	0.59	0.70	23.1
16	R	38	2.0	0.129	8.9	LOS A	0.4	10.6	0.59	0.76	22.8
Approach		64	2.0	0.129	8.9	LOS A	0.4	10.6	0.59	0.79	22.6
North: Pleasant St											
7	L	6	2.0	0.459	10.3	LOS B	2.2	56.6	0.52	0.93	21.5
4	T	376	1.0	0.459	10.3	LOS B	2.2	56.6	0.52	0.61	22.8
14	R	426	1.0	0.513	11.4	LOS B	2.8	70.9	0.56	0.71	21.8
Approach		808	1.0	0.513	10.8	LOS B	2.8	70.9	0.54	0.66	22.2
West: Hancock St											
5	L	258	0.0	0.458	11.1	LOS B	2.3	58.1	0.60	0.90	20.8
2	T	16	2.0	0.458	11.1	LOS B	2.3	58.1	0.60	0.72	22.0
12	R	69	3.0	0.458	11.1	LOS B	2.3	58.1	0.60	0.78	21.8
Approach		343	0.7	0.458	11.1	LOS B	2.3	58.1	0.60	0.87	21.1
All Vehicles		1773	1.0	0.662	12.3	LOS B	5.3	132.4	0.60	0.77	21.3

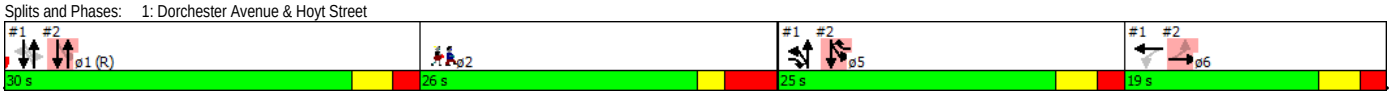
Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Model used. Geometric Delay not included.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	0	0	378	5	17	14	469	485	10	12	408	38	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	12	11	14	11	11	11	11	12	12	12	
Storage Length (ft)	0		110	0		0	0		0	0		100	
Storage Lanes	0		1	0		0	1		0	0		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	
Ped Bike Factor					0.99			1.00			1.00		
Frt			0.850		0.947			0.997			0.988		
Flt Protected					0.993		0.950				0.999		
Satd. Flow (prot)	0	0	2787	0	1417	0	1694	1709	0	0	3260	0	
Flt Permitted					0.993		0.395				0.938		
Satd. Flow (perm)	0	0	2787	0	1417	0	704	1709	0	0	3061	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		801			195			189			689		
Travel Time (s)		18.2			4.4			4.3			15.7		
Confl. Bikes (#/hr)						1			13			3	
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	2%	20%	53%	14%	3%	6%	60%	33%	7%	24%	
Adj. Flow (vph)	0	0	398	5	18	15	510	527	11	13	443	41	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	398	0	38	0	510	538	0	0	497	0	
Turn Type			Over	Perm	NA		D.P+P	NA		Perm	NA		
Protected Phases			5		6		5	1 5			1		2
Permitted Phases				6			1			1			
Detector Phase			5	6	6		5	1 5		1	1		
Switch Phase													
Minimum Initial (s)			8.0	10.0	10.0		8.0			8.0	8.0		4.0
Minimum Split (s)			13.0	15.0	15.0		13.0			13.0	13.0		26.0
Total Split (s)			25.0	19.0	19.0		25.0			30.0	30.0		26.0
Total Split (%)			25.0%	19.0%	19.0%		25.0%			30.0%	30.0%		26%
Maximum Green (s)			20.0	14.0	14.0		20.0			25.0	25.0		20.0
Yellow Time (s)			3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)			2.0	2.0	2.0		2.0			2.0	2.0		4.0
Lost Time Adjust (s)			-2.0		-1.0		-2.0				-1.0		
Total Lost Time (s)			3.0		4.0		3.0				4.0		
Lead/Lag			Lead	Lag	Lag		Lead			Lead	Lead		Lag
Lead-Lag Optimize?													
Vehicle Extension (s)			4.0	2.0	2.0		4.0			4.0	4.0		2.0
Recall Mode			None	None	None		None			C-Max	C-Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													20
Act Effct Green (s)			22.0		14.0		65.6	66.0			42.6		
Actuated g/C Ratio			0.22		0.14		0.66	0.66			0.43		
v/c Ratio			0.65		0.19		0.75	0.48			0.38		
Control Delay			50.2		40.0		24.1	5.2			24.3		
Queue Delay			0.2		0.0		5.4	0.8			0.0		
Total Delay			50.4		40.0		29.5	5.9			24.3		
LOS			D		D		C	A			C		
Approach Delay					40.0			17.4			24.3		
Approach LOS					D			B			C		
Queue Length 50th (ft)			154		21		104	39			91		
Queue Length 95th (ft)			m189		52		#398	72			203		
Internal Link Dist (ft)		721			115			109			609		
Turn Bay Length (ft)			110										
Base Capacity (vph)			613		212		679	1128			1304		
Starvation Cap Reductn			0		0		116	303			0		
Spillback Cap Reductn			19		0		0	0			40		
Storage Cap Reductn			0		0		0	0			0		
Reduced v/c Ratio			0.67		0.18		0.91	0.65			0.39		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 26.2 Intersection LOS: C
Intersection Capacity Utilization 57.3% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Dorchester Avenue & Hoyt Street

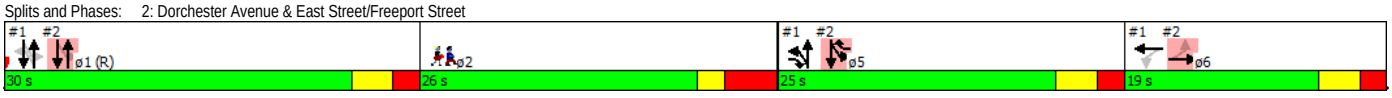


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	48	119	22	0	0	373	0	542	13	402	389	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	15	12	12	12	11	11	12	
Storage Length (ft)	0		0	0		0	0		100	0		0	
Storage Lanes	0		0	0		1	0		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor								1.00					
Frt		0.984				0.865		0.997					
Flt Protected		0.987								0.950			
Satd. Flow (prot)	0	1932	0	0	0	1722	0	3462	0	1711	1701	0	
Flt Permitted		0.987								0.328			
Satd. Flow (perm)	0	1932	0	0	0	1722	0	3462	0	591	1701	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)						*250							
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		315			326			2596			189		
Travel Time (s)		7.2			7.4			59.0			4.3		
Confl. Bikes (#/hr)									4			7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	13%	6%	10%	0%	0%	5%	0%	4%	0%	2%	8%	0%	
Adj. Flow (vph)	52	129	24	0	0	405	0	589	14	437	423	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	205	0	0	0	405	0	603	0	437	423	0	
Turn Type	Perm	NA				Over		NA		D.P+P	NA		
Protected Phases		6				5		1		5	1 5		2
Permitted Phases	6									1			
Detector Phase	6	6				5		1		5	1 5		
Switch Phase													
Minimum Initial (s)	10.0	10.0				8.0		8.0		8.0			4.0
Minimum Split (s)	15.0	15.0				13.0		13.0		13.0			26.0
Total Split (s)	19.0	19.0				25.0		30.0		25.0			26.0
Total Split (%)	19.0%	19.0%				25.0%		30.0%		25.0%			26%
Maximum Green (s)	14.0	14.0				20.0		25.0		20.0			20.0
Yellow Time (s)	3.0	3.0				3.0		3.0		3.0			2.0
All-Red Time (s)	2.0	2.0				2.0		2.0		2.0			4.0
Lost Time Adjust (s)		-1.0				-2.0		-1.0		-2.0			
Total Lost Time (s)		4.0				3.0		4.0		3.0			
Lead/Lag	Lag	Lag				Lead		Lead		Lead			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0				4.0		4.0		4.0			2.0
Recall Mode	None	None				None		C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													20
Act Effct Green (s)		14.0				22.0		42.6		65.6	66.0		
Actuated g/C Ratio		0.14				0.22		0.43		0.66	0.66		
v/c Ratio		0.76				0.71		0.41		0.69	0.38		
Control Delay		60.0				21.0		24.4		15.0	1.9		
Queue Delay		0.0				0.6		0.1		0.6	0.7		
Total Delay		60.0				21.6		24.5		15.5	2.6		
LOS		E				C		C		B	A		
Approach Delay		60.0						24.5			9.2		
Approach LOS		E						C			A		
Queue Length 50th (ft)		126				88		112		35	3		
Queue Length 95th (ft)		#222				200		242		#284	30		
Internal Link Dist (ft)		235			246			2516			109		
Turn Bay Length (ft)													
Base Capacity (vph)		289				573		1475		634	1122		
Starvation Cap Reductn		0				0		0		39	385		
Spillback Cap Reductn		0				31		98		0	0		
Storage Cap Reductn		0				0		0		0	0		
Reduced v/c Ratio		0.71				0.75		0.44		0.73	0.57		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 21.1 Intersection LOS: C
Intersection Capacity Utilization 58.7% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Dorchester Avenue & East Street/Freeport Street

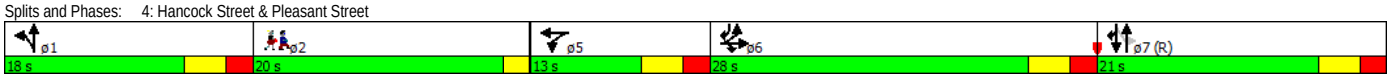


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	337	6	80	20	12	49	172	412	11	2	240	214	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		100	0		0	50		0	100		100	
Storage Lanes	0		1	0		0	1		0	1		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Ped Bike Factor		0.99					1.00						
Frt			0.850		0.918			0.996				0.850	
Flt Protected		0.953			0.988		0.950			0.950			
Satd. Flow (prot)	0	1775	1553	0	1689	0	1656	1855	0	1770	1881	1599	
Flt Permitted		0.953			0.988		0.950			0.267			
Satd. Flow (perm)	0	1755	1553	0	1689	0	1652	1855	0	497	1881	1599	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		436			241			801			1206		
Travel Time (s)		9.9			5.5			18.2			27.4		
Confl. Peds. (#/hr)	6		1				1					1	
Confl. Bikes (#/hr)												2	
Peak Hour Factor	0.92	0.90	0.92	0.90	0.90	0.90	0.92	0.92	0.90	0.90	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	9%	2%	2%	2%	1%	1%	
Adj. Flow (vph)	366	7	87	22	13	54	187	448	12	2	261	233	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	373	87	0	89	0	187	460	0	2	261	233	
Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Perm	NA	pt+ov	
Protected Phases	6	6	6	5	5		1	1 7			7	6 7	2
Permitted Phases										7			
Detector Phase	6	6	6	5	5		1	1 7		7	7	6 7	
Switch Phase													
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0			8.0	8.0		4.0
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0		13.0			13.0	13.0		20.0
Total Split (s)	28.0	28.0	28.0	13.0	13.0		18.0			21.0	21.0		20.0
Total Split (%)	28.0%	28.0%	28.0%	13.0%	13.0%		18.0%			21.0%	21.0%		20%
Maximum Green (s)	23.0	23.0	23.0	8.0	8.0		13.0			16.0	16.0		18.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0			2.0	2.0		0.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0			0.0	0.0		
Total Lost Time (s)		5.0	5.0		5.0		5.0			5.0	5.0		
Lead/Lag	Lag	Lag	Lag	Lead	Lead		Lead						Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0			2.0	2.0		2.0
Recall Mode	Max	Max	Max	None	None		Max			C-Max	C-Max		Ped
Walk Time (s)													5.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													16
Act Effct Green (s)		25.6	25.6		8.0		13.0	34.0		16.0	16.0	46.6	
Actuated g/C Ratio		0.26	0.26		0.08		0.13	0.34		0.16	0.16	0.47	
v/c Ratio		0.82	0.22		0.66		0.87	0.73		0.03	0.87	0.31	
Control Delay		53.0	33.0		68.5		73.3	35.5		36.5	69.7	19.2	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0	
Total Delay		53.0	33.0		68.5		73.3	35.5		36.5	69.7	19.2	
LOS		D	C		E		E	D		D	E	B	
Approach Delay		49.2			68.5			46.4			45.8		
Approach LOS		D			E			D			D		
Queue Length 50th (ft)		233	45		56		114	243		1	164	95	
Queue Length 95th (ft)		#405	89		#129		m#199	342		8	#304	153	
Internal Link Dist (ft)		356			161			721			1126		
Turn Bay Length (ft)			100				50			100		100	
Base Capacity (vph)		454	397		135		215	630		79	300	745	
Starvation Cap Reductn		0	0		0		0	0		0	0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	0	
Reduced v/c Ratio		0.82	0.22		0.66		0.87	0.73		0.03	0.87	0.31	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 7:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 48.2 Intersection LOS: D
Intersection Capacity Utilization 67.2% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hancock Street & Pleasant Street

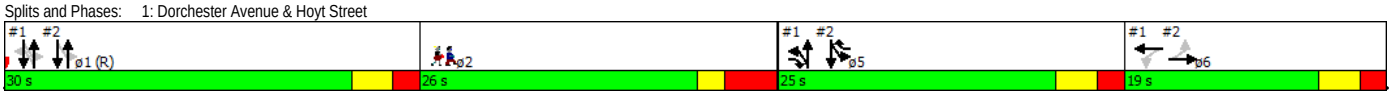


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	0	0	488	16	44	17	370	474	37	26	536	46	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	12	11	14	11	11	11	11	12	12	12	
Storage Length (ft)	0		110	0		0	0		0	0		100	
Storage Lanes	0		1	0		0	1		0	0		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	
Ped Bike Factor								1.00			1.00		
Frt			0.850		0.971			0.989			0.989		
Flt Protected					0.990		0.950				0.998		
Satd. Flow (prot)	0	0	2760	0	1923	0	1728	1672	0	0	3323	0	
Flt Permitted					0.990		0.301				0.915		
Satd. Flow (perm)	0	0	2760	0	1923	0	547	1672	0	0	3047	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		854			195			189			689		
Travel Time (s)		19.4			4.4			4.3			15.7		
Confl. Bikes (#/hr)									3			9	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	3%	0%	0%	6%	1%	2%	92%	76%	4%	2%	
Adj. Flow (vph)	0	0	525	17	48	18	394	504	39	28	570	49	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	525	0	83	0	394	543	0	0	647	0	
Turn Type			Over	Perm	NA		D.P+P	NA		Perm	NA		
Protected Phases			5		6		5	1 5			1		2
Permitted Phases				6			1			1			
Detector Phase			5	6	6		5	1 5		1	1		
Switch Phase													
Minimum Initial (s)			8.0	10.0	10.0		8.0			8.0	8.0		4.0
Minimum Split (s)			14.0	15.0	15.0		14.0			13.0	13.0		26.0
Total Split (s)			25.0	19.0	19.0		25.0			30.0	30.0		26.0
Total Split (%)			25.0%	19.0%	19.0%		25.0%			30.0%	30.0%		26%
Maximum Green (s)			20.0	14.0	14.0		20.0			25.0	25.0		20.0
Yellow Time (s)			3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)			2.0	2.0	2.0		2.0			2.0	2.0		4.0
Lost Time Adjust (s)			-2.0		-1.0		-2.0				-1.0		
Total Lost Time (s)			3.0		4.0		3.0				4.0		
Lead/Lag			Lead	Lag	Lag		Lead			Lead	Lead		Lag
Lead-Lag Optimize?													
Vehicle Extension (s)			4.0	2.0	2.0		4.0			4.0	4.0		2.0
Recall Mode			None	None	None		None			C-Max	C-Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													17
Act Effct Green (s)			22.0		14.3		65.3	65.7			42.3		
Actuated g/C Ratio			0.22		0.14		0.65	0.66			0.42		
v/c Ratio			0.86		0.30		0.64	0.49			0.50		
Control Delay			60.4		41.2		21.8	5.8			31.6		
Queue Delay			1.4		0.0		3.2	0.8			0.0		
Total Delay			61.8		41.2		25.0	6.5			31.6		
LOS			E		D		C	A			C		
Approach Delay					41.2			14.3			31.6		
Approach LOS					D			B			C		
Queue Length 50th (ft)			203		48		81	49			143		
Queue Length 95th (ft)			#293		93		m#223	m68			#293		
Internal Link Dist (ft)		774			115			109			609		
Turn Bay Length (ft)			110										
Base Capacity (vph)			607		288		616	1097			1287		
Starvation Cap Reductn			0		0		134	270			0		
Spillback Cap Reductn			18		0		0	0			40		
Storage Cap Reductn			0		0		0	0			0		
Reduced v/c Ratio			0.89		0.29		0.82	0.66			0.52		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 31.8 Intersection LOS: C
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Dorchester Avenue & Hoyt Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	57	107	21	0	0	341	0	482	28	540	500	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	15	12	12	12	11	11	12	
Storage Length (ft)	0		0	0		0	0		100	0		0	
Storage Lanes	0		0	0		1	0		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor		1.00						1.00					
Frt		0.985				0.865		0.992					
Flt Protected		0.985								0.950			
Satd. Flow (prot)	0	1696	0	0	0	1772	0	3465	0	1711	1783	0	
Flt Permitted		0.985								0.371			
Satd. Flow (perm)	0	1696	0	0	0	1772	0	3465	0	668	1783	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)						*250							
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		315			326			2596			189		
Travel Time (s)		7.2			7.4			59.0			4.3		
Confl. Bikes (#/hr)			1						4			5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.96	0.96	0.96	0.97	0.97	0.97	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	48%	14%	0%	0%	0%	2%	0%	3%	7%	2%	3%	0%	
Adj. Flow (vph)	62	116	23	0	0	371	0	502	29	557	515	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	201	0	0	0	371	0	531	0	557	515	0	
Turn Type	Perm	NA				Over		NA		D.P+P	NA		
Protected Phases		6				5		1		5	1 5		2
Permitted Phases	6									1			
Detector Phase	6	6				5		1		5	1 5		
Switch Phase													
Minimum Initial (s)	10.0	10.0				8.0		8.0		8.0			4.0
Minimum Split (s)	15.0	15.0				14.0		13.0		14.0			26.0
Total Split (s)	19.0	19.0				25.0		30.0		25.0			26.0
Total Split (%)	19.0%	19.0%				25.0%		30.0%		25.0%			26%
Maximum Green (s)	14.0	14.0				20.0		25.0		20.0			20.0
Yellow Time (s)	3.0	3.0				3.0		3.0		3.0			2.0
All-Red Time (s)	2.0	2.0				2.0		2.0		2.0			4.0
Lost Time Adjust (s)		-1.0				-2.0		-1.0		-2.0			
Total Lost Time (s)		4.0				3.0		4.0		3.0			
Lead/Lag	Lag	Lag				Lead		Lead		Lead			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0				4.0		4.0		4.0			2.0
Recall Mode	None	None				None		C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													17
Act Effct Green (s)		14.3				22.0		42.3		65.3	65.7		
Actuated g/C Ratio		0.14				0.22		0.42		0.65	0.66		
v/c Ratio		0.83				0.64		0.36		0.84	0.44		
Control Delay		69.1				17.1		23.9		22.5	3.6		
Queue Delay		0.0				0.3		0.0		2.7	1.0		
Total Delay		69.1				17.5		23.9		25.2	4.6		
LOS		E				B		C		C	A		
Approach Delay		69.1						23.9			15.3		
Approach LOS		E						C			B		
Queue Length 50th (ft)		125				65		96		56	26		
Queue Length 95th (ft)		#240				164		211		m#392	m57		
Internal Link Dist (ft)		235			246			2516			109		
Turn Bay Length (ft)													
Base Capacity (vph)		254				584		1464		665	1170		
Starvation Cap Reductn		0				0		0		45	401		
Spillback Cap Reductn		0				29		67		0	0		
Storage Cap Reductn		0				0		0		0	0		
Reduced v/c Ratio		0.79				0.67		0.38		0.90	0.67		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 22.8 Intersection LOS: C
Intersection Capacity Utilization 64.2% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

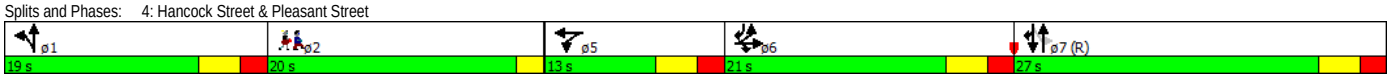
Splits and Phases: 2: Dorchester Avenue & East Street/Freeport Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	243	14	66	15	9	35	227	262	24	5	346	392	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		100	0		0	50		0	100		100	
Storage Lanes	0		1	0		0	1		0	1		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Ped Bike Factor		0.98					1.00						
Frt			0.850		0.920			0.986				0.850	
Flt Protected		0.955			0.987		0.950			0.950			
Satd. Flow (prot)	0	1812	1568	0	1691	0	1787	1853	0	1770	1881	1599	
Flt Permitted		0.955			0.987		0.950			0.474			
Satd. Flow (perm)	0	1779	1568	0	1691	0	1780	1853	0	883	1881	1599	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		436			183			854			1110		
Travel Time (s)		9.9			4.2			19.4			25.2		
Confl. Peds. (#/hr)	7		2				2					2	
Confl. Bikes (#/hr)												1	
Peak Hour Factor	0.95	0.90	0.95	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.92	0.92	
Growth Factor	100%	110%	100%	110%	110%	110%	100%	100%	110%	110%	100%	100%	
Heavy Vehicles (%)	0%	2%	3%	2%	2%	2%	1%	1%	2%	2%	1%	1%	
Adj. Flow (vph)	256	17	69	18	11	42	247	285	29	6	376	426	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	273	69	0	71	0	247	314	0	6	376	426	
Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Perm	NA	pt+ov	
Protected Phases	6	6	6	5	5		1	1 7			7	6 7	2
Permitted Phases										7			
Detector Phase	6	6	6	5	5		1	1 7		7	7	6 7	
Switch Phase													
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0			8.0	8.0		4.0
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0		13.0			13.0	13.0		20.0
Total Split (s)	21.0	21.0	21.0	13.0	13.0		19.0			27.0	27.0		20.0
Total Split (%)	21.0%	21.0%	21.0%	13.0%	13.0%		19.0%			27.0%	27.0%		20%
Maximum Green (s)	16.0	16.0	16.0	8.0	8.0		14.0			22.0	22.0		18.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0			2.0	2.0		0.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0			0.0	0.0		
Total Lost Time (s)		5.0	5.0		5.0		5.0			5.0	5.0		
Lead/Lag	Lag	Lag	Lag	Lead	Lead		Lead						Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0			2.0	2.0		2.0
Recall Mode	None	None	None	None	None		Max			C-Max	C-Max		None
Walk Time (s)													5.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													22
Act Effct Green (s)		18.3	18.3		8.1		14.0	53.2		34.2	34.2	57.5	
Actuated g/C Ratio		0.18	0.18		0.08		0.14	0.53		0.34	0.34	0.58	
v/c Ratio		0.83	0.24		0.52		0.99	0.32		0.02	0.58	0.46	
Control Delay		61.7	38.0		58.2		92.3	15.8		22.0	29.0	11.0	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0	
Total Delay		61.7	38.0		58.2		92.3	15.8		22.0	29.0	11.0	
LOS		E	D		E		F	B		C	C	B	
Approach Delay		56.9			58.2			49.5			19.5		
Approach LOS		E			E			D			B		
Queue Length 50th (ft)		160	36		44		157	122		2	200	72	
Queue Length 95th (ft)		#330	81		#95		#317	223		m4	m#368	m268	
Internal Link Dist (ft)		356			103			774			1030		
Turn Bay Length (ft)			100				50			100		100	
Base Capacity (vph)		330	286		137		250	985		302	643	919	
Starvation Cap Reductn		0	0		0		0	0		0	0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	0	
Reduced v/c Ratio		0.83	0.24		0.52		0.99	0.32		0.02	0.58	0.46	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 7:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 37.6 Intersection LOS: D
Intersection Capacity Utilization 64.2% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hancock Street & Pleasant Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	0	0	378	5	17	14	458	485	10	12	408	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	11	12	11	12	11	11	12	12	12	
Storage Length (ft)	0		110	0		0	0		0	0		100	
Storage Lanes	0		1	0		0	1		0	0		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	
Ped Bike Factor					0.99			1.00					
Frt			0.850		0.948			0.997					
Flt Protected					0.994		0.950				0.999		
Satd. Flow (prot)	0	0	2787	0	1630	0	1770	1709	0	0	3347	0	
Flt Permitted					0.994		0.423				0.936		
Satd. Flow (perm)	0	0	2787	0	1630	0	788	1709	0	0	3136	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		470			195			189			689		
Travel Time (s)		10.7			4.4			4.3			15.7		
Confl. Bikes (#/hr)						1			13				
Peak Hour Factor	0.90	0.90	0.90	0.92	0.90	0.92	0.90	0.92	0.92	0.92	0.92	0.90	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	110%	
Heavy Vehicles (%)	2%	2%	2%	20%	2%	14%	2%	6%	60%	33%	7%	2%	
Adj. Flow (vph)	0	0	420	5	19	15	509	527	11	13	443	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	420	0	39	0	509	538	0	0	456	0	
Turn Type			Over	Perm	NA		D.P+P	NA		Perm	NA		
Protected Phases			5		6		5	1 5			1		2
Permitted Phases				6			1			1			
Detector Phase			5	6	6		5	1 5		1	1		
Switch Phase													
Minimum Initial (s)			8.0	10.0	10.0		8.0			8.0	8.0		4.0
Minimum Split (s)			13.0	15.0	15.0		13.0			13.0	13.0		26.0
Total Split (s)			25.0	19.0	19.0		25.0			30.0	30.0		26.0
Total Split (%)			25.0%	19.0%	19.0%		25.0%			30.0%	30.0%		26%
Maximum Green (s)			20.0	14.0	14.0		20.0			25.0	25.0		20.0
Yellow Time (s)			3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)			2.0	2.0	2.0		2.0			2.0	2.0		4.0
Lost Time Adjust (s)			-2.0		-1.0		-2.0				-1.0		
Total Lost Time (s)			3.0		4.0		3.0				4.0		
Lead/Lag			Lead	Lag	Lag		Lead			Lead	Lead		Lag
Lead-Lag Optimize?													
Vehicle Extension (s)			4.0	2.0	2.0		4.0			4.0	4.0		2.0
Recall Mode			None	None	None		None			C-Max	C-Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													20
Act Effct Green (s)			22.0		14.0		65.6	66.0			42.6		
Actuated g/C Ratio			0.22		0.14		0.66	0.66			0.43		
v/c Ratio			0.69		0.17		0.69	0.48			0.34		
Control Delay			43.2		39.3		19.9	5.2			23.7		
Queue Delay			0.3		0.0		2.9	0.8			0.0		
Total Delay			43.4		39.3		22.8	6.0			23.7		
LOS			D		D		C	A			C		
Approach Delay					39.3			14.2			23.7		
Approach LOS					D			B			C		
Queue Length 50th (ft)			158		22		92	39			82		
Queue Length 95th (ft)			197		53		#330	72			184		
Internal Link Dist (ft)		390			115			109			609		
Turn Bay Length (ft)			110										
Base Capacity (vph)			613		244		733	1128			1336		
Starvation Cap Reductn			0		0		131	302			0		
Spillback Cap Reductn			19		0		0	0			55		
Storage Cap Reductn			0		0		0	0			0		
Reduced v/c Ratio			0.71		0.16		0.85	0.65			0.36		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 23.2 Intersection LOS: C
Intersection Capacity Utilization 56.1% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

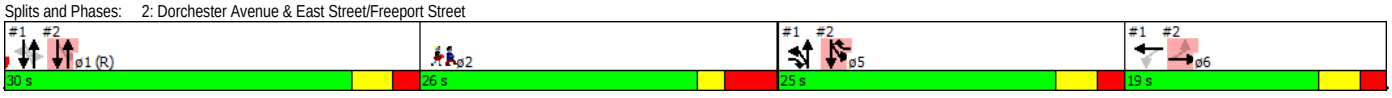
Splits and Phases: 1: Dorchester Avenue & Hoyt Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	48	119	22	0	0	373	0	542	13	402	389	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	15	12	12	12	11	11	12	
Storage Length (ft)	0		0	0		0	0		100	0		0	
Storage Lanes	0		0	0		1	0		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor								1.00					
Frt		0.984				0.865		0.997					
Flt Protected		0.987								0.950			
Satd. Flow (prot)	0	1932	0	0	0	1722	0	3462	0	1711	1701	0	
Flt Permitted		0.987								0.328			
Satd. Flow (perm)	0	1932	0	0	0	1722	0	3462	0	591	1701	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)						*250							
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		315			326			2596			189		
Travel Time (s)		7.2			7.4			59.0			4.3		
Confl. Bikes (#/hr)									4			7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	13%	6%	10%	0%	0%	5%	0%	4%	0%	2%	8%	0%	
Adj. Flow (vph)	52	129	24	0	0	405	0	589	14	437	423	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	205	0	0	0	405	0	603	0	437	423	0	
Turn Type	Perm	NA				Over		NA		D.P+P	NA		
Protected Phases		6				5		1		5	1 5		2
Permitted Phases	6									1			
Detector Phase	6	6				5		1		5	1 5		
Switch Phase													
Minimum Initial (s)	10.0	10.0				8.0		8.0		8.0			4.0
Minimum Split (s)	15.0	15.0				13.0		13.0		13.0			26.0
Total Split (s)	19.0	19.0				25.0		30.0		25.0			26.0
Total Split (%)	19.0%	19.0%				25.0%		30.0%		25.0%			26%
Maximum Green (s)	14.0	14.0				20.0		25.0		20.0			20.0
Yellow Time (s)	3.0	3.0				3.0		3.0		3.0			2.0
All-Red Time (s)	2.0	2.0				2.0		2.0		2.0			4.0
Lost Time Adjust (s)		-1.0				-2.0		-1.0		-2.0			
Total Lost Time (s)		4.0				3.0		4.0		3.0			
Lead/Lag	Lag	Lag				Lead		Lead		Lead			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0				4.0		4.0		4.0			2.0
Recall Mode	None	None				None		C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													20
Act Effct Green (s)		14.0				22.0		42.6		65.6	66.0		
Actuated g/C Ratio		0.14				0.22		0.43		0.66	0.66		
v/c Ratio		0.76				0.71		0.41		0.69	0.38		
Control Delay		60.0				21.0		24.4		15.2	2.0		
Queue Delay		0.0				0.5		0.0		0.6	0.7		
Total Delay		60.0				21.5		24.4		15.8	2.7		
LOS		E				C		C		B	A		
Approach Delay		60.0						24.4			9.3		
Approach LOS		E						C			A		
Queue Length 50th (ft)		126				88		112		32	3		
Queue Length 95th (ft)		#222				200		242		#284	37		
Internal Link Dist (ft)		235			246			2516			109		
Turn Bay Length (ft)													
Base Capacity (vph)		289				573		1475		634	1122		
Starvation Cap Reductn		0				0		0		41	386		
Spillback Cap Reductn		0				27		57		0	0		
Storage Cap Reductn		0				0		0		0	0		
Reduced v/c Ratio		0.71				0.74		0.43		0.74	0.57		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 21.1 Intersection LOS: C
Intersection Capacity Utilization 58.7% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Dorchester Avenue & East Street/Freeport Street



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø2	ø5	ø7
Lane Configurations									
Volume (vph)	343	80	172	423	260	226			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	100	0	0			0			
Storage Lanes	1	1	1			1			
Taper Length (ft)	25		25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Frt		0.850				0.850			
Flt Protected	0.950		0.950						
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583			
Flt Permitted	0.950		0.950						
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583			
Right Turn on Red		No				No			
Satd. Flow (RTOR)									
Link Speed (mph)	30			30	30				
Link Distance (ft)	423			368	89				
Travel Time (s)	9.6			8.4	2.0				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Growth Factor	100%	100%	100%	100%	100%	100%			
Adj. Flow (vph)	373	87	187	460	283	246			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	373	87	187	460	283	246			
Turn Type	Prot	Prot	Prot	NA	NA	custom			
Protected Phases	6	6	1	1 7	5 7	6 7	2	5	7
Permitted Phases									
Detector Phase	6	6	1	1 7	5 7	6 7			
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0				4.0	8.0	8.0
Minimum Split (s)	21.0	21.0	21.0				18.0	21.0	13.0
Total Split (s)	26.0	26.0	22.0				18.0	21.0	13.0
Total Split (%)	26.0%	26.0%	22.0%				18%	21%	13%
Maximum Green (s)	21.0	21.0	17.0				16.0	16.0	8.0
Yellow Time (s)	3.0	3.0	3.0				2.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0				0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0						
Total Lost Time (s)	5.0	5.0	5.0						
Lead/Lag	Lag	Lag	Lead				Lag	Lead	
Lead-Lag Optimize?									
Vehicle Extension (s)	2.0	2.0	2.0				2.0	2.0	2.0
Recall Mode	None	None	C-Max				None	None	Max
Walk Time (s)							5.0		
Flash Dont Walk (s)							9.0		
Pedestrian Calls (#/hr)							16		
Act Effct Green (s)	25.5	25.5	17.0	41.5	31.1	50.0			
Actuated g/C Ratio	0.26	0.26	0.17	0.42	0.31	0.50			
v/c Ratio	0.83	0.22	0.62	0.60	0.49	0.31			
Control Delay	52.9	32.0	52.2	33.4	18.8	19.6			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	52.9	32.0	52.2	33.4	18.8	19.6			
LOS	D	C	D	C	B	B			
Approach Delay	49.0			38.8	19.2				
Approach LOS	D			D	B				
Queue Length 50th (ft)	215	42	126	266	76	71			
Queue Length 95th (ft)	#430	91	m187	#449	139	195			
Internal Link Dist (ft)	343			288	9				
Turn Bay Length (ft)	100								
Base Capacity (vph)	451	403	300	773	669	792			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.83	0.22	0.62	0.60	0.42	0.31			

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 35.3 Intersection LOS: D
Intersection Capacity Utilization 54.7% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

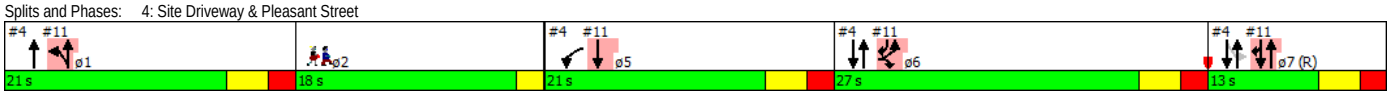
Splits and Phases: 11: Hancock St & Pleasant St

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø6
Lane Configurations									
Volume (vph)	32	49	749	17	2	454			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	0		0	75				
Storage Lanes	1	0		0	1				
Taper Length (ft)	25				25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95			
Frt	0.919		0.997						
Flt Protected	0.980								
Satd. Flow (prot)	1678	0	1857	0	0	3539			
Flt Permitted	0.980					0.953			
Satd. Flow (perm)	1678	0	1857	0	0	3373			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		30			30			
Link Distance (ft)	219		89			1107			
Travel Time (s)	5.0		2.0			25.2			
Peak Hour Factor	0.92	0.95	0.92	0.92	0.92	0.90			
Growth Factor	100%	100%	100%	100%	100%	100%			
Adj. Flow (vph)	35	52	814	18	2	504			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	87	0	832	0	0	506			
Turn Type	Prot		NA		custom	NA			
Protected Phases	5		1 6 7			6 7	1	2	6
Permitted Phases					7				
Detector Phase	5		1 6 7		7	6 7			
Switch Phase									
Minimum Initial (s)	8.0				8.0		8.0	4.0	8.0
Minimum Split (s)	21.0				13.0		21.0	18.0	21.0
Total Split (s)	21.0				13.0		21.0	18.0	27.0
Total Split (%)	21.0%				13.0%		21%	18%	27%
Maximum Green (s)	16.0				8.0		16.0	16.0	22.0
Yellow Time (s)	3.0				3.0		3.0	2.0	3.0
All-Red Time (s)	2.0				2.0		2.0	0.0	2.0
Lost Time Adjust (s)	0.0								
Total Lost Time (s)	5.0								
Lead/Lag	Lead						Lead	Lag	Lag
Lead-Lag Optimize?									
Vehicle Extension (s)	2.0				2.0		2.0	2.0	2.0
Recall Mode	None				C-Max		Max	None	None
Walk Time (s)								5.0	
Flash Dont Walk (s)								9.0	
Pedestrian Calls (#/hr)								22	
Act Effct Green (s)	12.1		71.5			50.5			
Actuated g/C Ratio	0.12		0.72			0.50			
v/c Ratio	0.43		0.63			0.30			
Control Delay	46.2		3.6			17.5			
Queue Delay	0.0		0.0			0.3			
Total Delay	46.2		3.6			17.8			
LOS	D		A			B			
Approach Delay	46.2		3.6			17.8			
Approach LOS	D		A			B			
Queue Length 50th (ft)	53		8			79			
Queue Length 95th (ft)	94		38			175			
Internal Link Dist (ft)	139		9			1027			
Turn Bay Length (ft)									
Base Capacity (vph)	275		1328			1704			
Starvation Cap Reductn	0		0			0			
Spillback Cap Reductn	0		0			621			
Storage Cap Reductn	0		0			0			
Reduced v/c Ratio	0.32		0.63			0.47			

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 48 (48%), Referenced to phase 7:NBSB, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 11.3 — Intersection LOS: B
Intersection Capacity Utilization 55.5% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Site Driveway & Pleasant Street

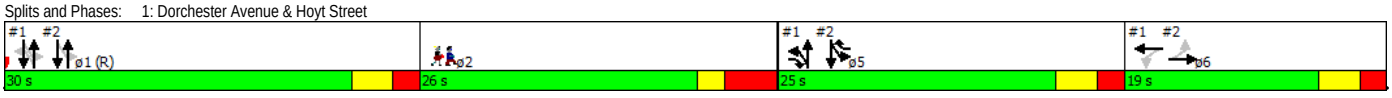


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	0	0	488	16	44	17	370	474	37	26	536	46	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	12	11	14	11	11	11	11	12	12	12	
Storage Length (ft)	0		110	0		0	0		0	0		100	
Storage Lanes	0		1	0		0	1		0	0		1	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	
Ped Bike Factor					1.00			1.00					
Frt			0.850		0.971			0.989			0.989		
Flt Protected					0.990		0.950				0.998		
Satd. Flow (prot)	0	0	2760	0	1914	0	1728	1671	0	0	3331	0	
Flt Permitted					0.990		0.301				0.915		
Satd. Flow (perm)	0	0	2760	0	1914	0	547	1671	0	0	3054	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		470			195			189			689		
Travel Time (s)		10.7			4.4			4.3			15.7		
Confl. Bikes (#/hr)						1			13				
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	3%	0%	0%	6%	1%	2%	92%	76%	4%	2%	
Adj. Flow (vph)	0	0	525	17	48	18	394	504	39	28	570	49	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	525	0	83	0	394	543	0	0	647	0	
Turn Type			Over	Perm	NA		D.P+P	NA		Perm	NA		
Protected Phases			5		6		5	1 5			1		2
Permitted Phases				6			1			1			
Detector Phase			5	6	6		5	1 5		1	1		
Switch Phase													
Minimum Initial (s)			8.0	10.0	10.0		8.0			8.0	8.0		4.0
Minimum Split (s)			14.0	15.0	15.0		14.0			13.0	13.0		26.0
Total Split (s)			25.0	19.0	19.0		25.0			30.0	30.0		26.0
Total Split (%)			25.0%	19.0%	19.0%		25.0%			30.0%	30.0%		26%
Maximum Green (s)			20.0	14.0	14.0		20.0			25.0	25.0		20.0
Yellow Time (s)			3.0	3.0	3.0		3.0			3.0	3.0		2.0
All-Red Time (s)			2.0	2.0	2.0		2.0			2.0	2.0		4.0
Lost Time Adjust (s)			-2.0		-1.0		-2.0				-1.0		
Total Lost Time (s)			3.0		4.0		3.0				4.0		
Lead/Lag			Lead	Lag	Lag		Lead			Lead	Lead		Lag
Lead-Lag Optimize?													
Vehicle Extension (s)			4.0	2.0	2.0		4.0			4.0	4.0		2.0
Recall Mode			None	None	None		None			C-Max	C-Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													17
Act Effct Green (s)			22.0		14.3		65.3	65.7			42.3		
Actuated g/C Ratio			0.22		0.14		0.65	0.66			0.42		
v/c Ratio			0.86		0.30		0.64	0.49			0.50		
Control Delay			43.0		41.2		21.8	5.8			31.7		
Queue Delay			1.4		0.0		3.2	0.8			0.0		
Total Delay			44.4		41.2		25.0	6.5			31.7		
LOS			D		D		C	A			C		
Approach Delay					41.3			14.3			31.7		
Approach LOS					D			B			C		
Queue Length 50th (ft)			144		48		81	49			146		
Queue Length 95th (ft)			#286		93		m#223	m68			#292		
Internal Link Dist (ft)		390			115			109			609		
Turn Bay Length (ft)			110										
Base Capacity (vph)			607		287		616	1097			1290		
Starvation Cap Reductn			0		0		134	269			0		
Spillback Cap Reductn			18		0		0	0			40		
Storage Cap Reductn			0		0		0	0			0		
Reduced v/c Ratio			0.89		0.29		0.82	0.66			0.52		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 27.6 Intersection LOS: C
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Dorchester Avenue & Hoyt Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	57	107	21	0	0	341	0	482	28	540	500	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	15	12	12	12	11	11	12	
Storage Length (ft)	0		0	0		0	0		100	0		0	
Storage Lanes	0		0	0		1	0		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor								1.00					
Frt		0.985				0.865		0.992					
Flt Protected		0.985								0.950			
Satd. Flow (prot)	0	1700	0	0	0	1772	0	3465	0	1711	1783	0	
Flt Permitted		0.985								0.371			
Satd. Flow (perm)	0	1700	0	0	0	1772	0	3465	0	668	1783	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)						*250							
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		315			326			2596			189		
Travel Time (s)		7.2			7.4			59.0			4.3		
Confl. Bikes (#/hr)									4			7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.96	0.96	0.96	0.97	0.97	0.97	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	48%	14%	0%	0%	0%	2%	0%	3%	7%	2%	3%	0%	
Adj. Flow (vph)	62	116	23	0	0	371	0	502	29	557	515	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	201	0	0	0	371	0	531	0	557	515	0	
Turn Type	Perm	NA				Over		NA		D.P+P	NA		
Protected Phases		6				5		1		5	1 5		2
Permitted Phases	6									1			
Detector Phase	6	6				5		1		5	1 5		
Switch Phase													
Minimum Initial (s)	10.0	10.0				8.0		8.0		8.0			4.0
Minimum Split (s)	15.0	15.0				14.0		13.0		14.0			26.0
Total Split (s)	19.0	19.0				25.0		30.0		25.0			26.0
Total Split (%)	19.0%	19.0%				25.0%		30.0%		25.0%			26%
Maximum Green (s)	14.0	14.0				20.0		25.0		20.0			20.0
Yellow Time (s)	3.0	3.0				3.0		3.0		3.0			2.0
All-Red Time (s)	2.0	2.0				2.0		2.0		2.0			4.0
Lost Time Adjust (s)		-1.0				-2.0		-1.0		-2.0			
Total Lost Time (s)		4.0				3.0		4.0		3.0			
Lead/Lag	Lag	Lag				Lead		Lead		Lead			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0				4.0		4.0		4.0			2.0
Recall Mode	None	None				None		C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													17
Act Effct Green (s)		14.3				22.0		42.3		65.3	65.7		
Actuated g/C Ratio		0.14				0.22		0.42		0.65	0.66		
v/c Ratio		0.82				0.64		0.36		0.84	0.44		
Control Delay		68.7				17.1		23.9		22.7	3.9		
Queue Delay		0.0				0.3		0.0		2.7	1.0		
Total Delay		68.7				17.5		23.9		25.5	5.0		
LOS		E				B		C		C	A		
Approach Delay		68.7						23.9			15.6		
Approach LOS		E						C			B		
Queue Length 50th (ft)		125				65		96		58	26		
Queue Length 95th (ft)		#240				164		211		m#392	m57		
Internal Link Dist (ft)		235			246			2516			109		
Turn Bay Length (ft)													
Base Capacity (vph)		255				584		1464		665	1170		
Starvation Cap Reductn		0				0		0		45	401		
Spillback Cap Reductn		0				29		67		0	0		
Storage Cap Reductn		0				0		0		0	0		
Reduced v/c Ratio		0.79				0.67		0.38		0.90	0.67		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 22.9 Intersection LOS: C
Intersection Capacity Utilization 64.2% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

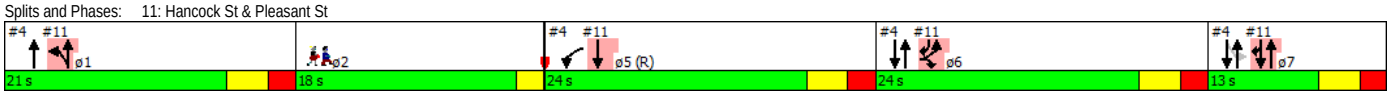
Splits and Phases: 2: Dorchester Avenue & East Street/Freeport Street

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø2	ø5	ø7
Lane Configurations									
Volume (vph)	258	66	227	288	363	402			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	100	0	0			0			
Storage Lanes	1	1	1			1			
Taper Length (ft)	25		25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Frt		0.850				0.850			
Flt Protected	0.950		0.950						
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583			
Flt Permitted	0.950		0.950						
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583			
Right Turn on Red		No				No			
Satd. Flow (RTOR)									
Link Speed (mph)	30			30	30				
Link Distance (ft)	423			368	89				
Travel Time (s)	9.6			8.4	2.0				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Growth Factor	100%	100%	100%	100%	100%	100%			
Adj. Flow (vph)	280	72	247	313	395	437			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	280	72	247	313	395	437			
Turn Type	Prot	Prot	Prot	NA	NA	custom			
Protected Phases	6	6	1	1 7	5 7	6 7	2	5	7
Permitted Phases									
Detector Phase	6	6	1	1 7	5 7	6 7			
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0				4.0	8.0	8.0
Minimum Split (s)	21.0	21.0	21.0				18.0	21.0	13.0
Total Split (s)	24.0	24.0	21.0				18.0	24.0	13.0
Total Split (%)	24.0%	24.0%	21.0%				18%	24%	13%
Maximum Green (s)	19.0	19.0	16.0				16.0	19.0	8.0
Yellow Time (s)	3.0	3.0	3.0				2.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0				0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0						
Total Lost Time (s)	5.0	5.0	5.0						
Lead/Lag	Lag	Lag	Lead				Lag	Lead	
Lead-Lag Optimize?									
Vehicle Extension (s)	2.0	2.0	2.0				2.0	2.0	2.0
Recall Mode	None	None	Max				None	C-Max	Max
Walk Time (s)							5.0		
Flash Dont Walk (s)							9.0		
Pedestrian Calls (#/hr)							22		
Act Effct Green (s)	19.0	19.0	16.0	29.0	38.6	32.0			
Actuated g/C Ratio	0.19	0.19	0.16	0.29	0.39	0.32			
v/c Ratio	0.83	0.24	0.87	0.58	0.55	0.86			
Control Delay	61.1	36.9	73.4	40.7	41.9	17.5			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	61.1	36.9	73.4	40.7	41.9	17.5			
LOS	E	D	E	D	D	B			
Approach Delay	56.2			55.1	29.1				
Approach LOS	E			E	C				
Queue Length 50th (ft)	173	39	150	157	265	16			
Queue Length 95th (ft)	#311	80	#296	287	m345	m#391			
Internal Link Dist (ft)	343			288	9				
Turn Bay Length (ft)	100								
Base Capacity (vph)	336	300	283	540	719	506			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.83	0.24	0.87	0.58	0.55	0.86			

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 5:WBL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 42.9 Intersection LOS: D
Intersection Capacity Utilization 58.5% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Hancock St & Pleasant St



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø6
Lane Configurations									
Volume (vph)	27	39	505	41	6	738			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	0		0	75				
Storage Lanes	1	0		0	1				
Taper Length (ft)	25				25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95			
Frt	0.921		0.990						
Flt Protected	0.980								
Satd. Flow (prot)	1681	0	1844	0	0	3539			
Flt Permitted	0.980					0.950			
Satd. Flow (perm)	1681	0	1844	0	0	3362			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		30			30			
Link Distance (ft)	219		89			1107			
Travel Time (s)	5.0		2.0			25.2			
Peak Hour Factor	0.92	0.95	0.92	0.92	0.92	0.90			
Growth Factor	100%	100%	100%	100%	100%	100%			
Adj. Flow (vph)	29	41	549	45	7	820			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	70	0	594	0	0	827			
Turn Type	Prot		NA		custom	NA			
Protected Phases	5		1 6 7			6 7	1	2	6
Permitted Phases					7				
Detector Phase	5		1 6 7		7	6 7			
Switch Phase									
Minimum Initial (s)	8.0				8.0		8.0	4.0	8.0
Minimum Split (s)	21.0				13.0		21.0	18.0	21.0
Total Split (s)	24.0				13.0		21.0	18.0	24.0
Total Split (%)	24.0%				13.0%		21%	18%	24%
Maximum Green (s)	19.0				8.0		16.0	16.0	19.0
Yellow Time (s)	3.0				3.0		3.0	2.0	3.0
All-Red Time (s)	2.0				2.0		2.0	0.0	2.0
Lost Time Adjust (s)	0.0								
Total Lost Time (s)	5.0								
Lead/Lag	Lead						Lead	Lag	Lag
Lead-Lag Optimize?									
Vehicle Extension (s)	2.0				2.0		2.0	2.0	2.0
Recall Mode	C-Max				Max		Max	None	None
Walk Time (s)								5.0	
Flash Dont Walk (s)								9.0	
Pedestrian Calls (#/hr)								22	
Act Effct Green (s)	30.6		53.0			32.0			
Actuated g/C Ratio	0.31		0.53			0.32			
v/c Ratio	0.14		0.61			0.77			
Control Delay	29.6		3.3			38.8			
Queue Delay	0.0		0.0			50.8			
Total Delay	29.7		3.3			89.6			
LOS	C		A			F			
Approach Delay	29.7		3.3			89.6			
Approach LOS	C		A			F			
Queue Length 50th (ft)	29		14			246			
Queue Length 95th (ft)	76		m13			333			
Internal Link Dist (ft)	139		9			1027			
Turn Bay Length (ft)									
Base Capacity (vph)	514		977			1075			
Starvation Cap Reductn	0		0			0			
Spillback Cap Reductn	43		0			393			
Storage Cap Reductn	0		0			0			
Reduced v/c Ratio	0.15		0.61			1.21			

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 5:WBL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 52.4 Intersection LOS: D
Intersection Capacity Utilization 44.1% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Site Driveway & Pleasant Street