

To: Peter Ratkiewich – Westport Town Engineer

From: Chris McLean, P.E.
John D. Plante, P.E.

Date: 10 November 2022
Revised 2 August 2023

Re: Expanded Existing Traffic Assessment
Downtown Westport Improvements
Westport, Connecticut
Langan Project No.: 140251201

Langan has prepared this study to investigate the existing traffic operations of downtown Westport in preparation for the potential improvements of the Parker Harding Plaza parking lot in Westport, Connecticut (See **Figure 1**).

Our evaluation indicates that, in general, the existing roadway network operates at acceptable levels-of-service within the project vicinity. The existing roadway network was analyzed based on traffic volumes counted in September 2022 and was re-evaluated using traffic volumes counted in June 2023 to confirm that the original counts. Our revised analysis indicates that despite expected variations in day-to-day traffic, the original analysis is confirmed. We will continue to evaluate the potential project options as the design progresses.

PROJECT DESCRIPTION

The Downtown Improvement project is a proposed streetscape and river walk project located along the Saugatuck River at Parker Harding Plaza in Westport, Connecticut. (See **Figure 1** of **Appendix A**).

The site is an existing parking lot that serves shopping in the downtown area and provides 214 parking spaces for patrons and downtown shoppers. The site is bordered by Parker Harding Plaza to the west and north, Route 1 to the south and retail to the east. The parcel is currently accessed by two separate driveways, which provide access in both directions.

The project proposes the demolition of a portion of the existing parking lot and surrounding landscaping features and proposes the construction of a new greenway along the riverfront with a new, zoning compliant parking lot, which is still in design.

EXISTING TRAFFIC CONDITIONS

Area Roadway Network

Parker Harding Plaza, is a one-way, south only local road one 20-foot wide travel lane in the southbound direction, with 14 on street parallel parking spots located near Parker Harding Plaza & Route 1 Intersection. The road turns into a two-way north-south road near its intersection with Route 1, with an addition of a 10-foot wide northbound lane for traffic entering the parking lot.

Post Road East (Route 1) is an east-west minor arterial with two 10-foot wide travel lane in each direction, with variable width shoulders and turn lanes provided at major intersections.

Main Street is a north-south local road with one 12-foot wide travel lane in each direction, with on street parking in the north bound direction and turn lanes provided at major intersections. Main Street is one-way northbound between Post Road East and Elm Street.

Myrtle Avenue is a north-south local road with one 15-foot wide travel lane in each direction, with variable width shoulders and turn lanes provided at major intersections.

Church Lane is an east-west local road with one 15-foot wide travel lane in each direction, with variable width shoulders and turn lanes provided at major intersections. Church Lane is one-way southbound between Elm Street and Post Road East.

Jesup Road is a north-south local road with one 12-foot wide travel lane in each direction, with variable width shoulders and turn lanes provided at major intersections.

Area Roadway Intersections

Myrtle Ave & Post Road East (Route 1) – Myrtle Avenue for a 4-way signalized intersection with Post Road East with the following geometry:

- Route 1 westbound provides one right-turn lane and one thru lane and one shared left-turn/thru lane.
- Route 1 eastbound provides one shared right-turn/thru lane and one shared left-turn/thru lane.
- Myrtle Avenue northbound provides one shared left/thru/right-turn lane.
- Myrtle Avenue southbound provides one left-turn lane and one shared thru/right-turn lane.

Main Street & Taylor Place & Post Road East – Main Street and Taylor Place form a 4-way signalized intersection with Post Road East with the following geometry:

- Post Road East westbound provides a left-turn only lane with approximately 140 feet of storage and one thru lane.
- Post Road East eastbound provides a right-turn only lane with approximately 200 feet of storage, two thru lanes.
- Main Street is a one-way northbound only and provides one thru lane.
- Taylor Place is a one-way northbound only and provides one thru lane.

Parker Harding Plaza & Jesup Road & Post Road East – Parker Harding Plaza and Jesup Road form a 4-way signalized intersection with Post Road East with the following geometry:

- Post Road East westbound provides a left-turn only lane with approximately 375 feet of storage and two thru lanes.
- Post Road East eastbound provides a shared thru/right-turn lane and one thru lane.
- Parker Harding southbound provides one left-turn lane and one shared thru/right-turn lane, in addition it turns into a one-way northbound only lane past the southernmost intersection with the parking lot.
- Jesup Road northbound provides one shared right/thru/left-turn lane.

Main Street & Parker Harding Plaza & Avery Place – Parker Harding Plaza and Avery Place form a 4-way signalized intersection with Main Street with the following geometry:

- Avery Place westbound provides one shared right/thru/left-turn lane.
- Parker Harding Plaza eastbound provides one shared right/thru/left-turn lane.
- Main Street southbound provides one left-turn lane and one shared right/thru-lane.
- Main Street northbound provides one shared right/thru/left-turn lane.

Church Lane & Myrtle Avenue – Church lane forms a stop controlled “T” intersection with Myrtle Avenue with the following geometry:

- Church Lane westbound provides one left-turn only and one right-turn only lane.
- Myrtle Avenue southbound provides one shared right/thru-lane.
- Myrtle Avenue northbound provides one shared thru/left-turn lane.

METHODOLOGY

Langan conducted capacity analyses for the existing traffic conditions to assess quality of traffic flow and to assess the adequacy of the road and intersections to serve the current traffic demand.

Level of Service Criteria

Level of Service (LOS) is the term used to denote the different operating conditions that occur at

an intersection under various traffic-volume demands. LOS is a qualitative measure that considers a number of factors including road geometry, speed and travel delay. LOS provides an index to the operational qualities of an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. The LOS designation is reported differently for signalized intersections and unsignalized intersections.

For signalized intersections, the analysis considers the operation of all traffic entering the intersection. For unsignalized intersections, however, the analysis considers the operation of all movements in conflict with other movements such as mainline left turns and traffic exiting the side street. An overall LOS is given for signalized intersections. For unsignalized intersections, LOS is given for each specific approach.

The evaluation criteria used to analyze the study area intersections are based on the Highway Capacity Manual (HCM) 6th Edition, published by the Transportation Research Board (TRB). SYNCHRO Plus SimTraffic 11 was used to facilitate calculations for the capacity analysis at each intersection.

The HCM 6th Edition defines level of service for signalized intersections as follows:

<u>Level of Service</u>	<u>Control Delay per Vehicle (sec/veh)</u>
A	≤10
B	>10 – 20
C	>20 – 35
D	>35 – 55
E	>55 – 80
F	>80

The HCM defines level of service for unsignalized intersections as follows:

<u>Level of Service</u>	<u>Control Delay per Vehicle (sec/veh)</u>
A	≤10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	> 50

Queuing Evaluation

In addition to the traffic operating conditions, Langan evaluated the resulting vehicular queuing

for all conditions to assess the impacts at study intersections. The industry standard is to use the 50th and the 95th percentile queue lengths developed by the analysis. The 50th percentile queue represents the average or typical vehicular queue that can be expected during the peak-hour. The 95th percentile queue length represents the queuing experience during the highest peak periods and accounts for 5% of the analysis period. Queues are calculated in feet, and approximately 25 feet of queue is equal to a single vehicle.

EXISTING TRAFFIC ANALYSIS

It is standard practice to evaluate the peak hours of the existing downtown streets in assessing the traffic operations of the roadway network. The traffic counts for roadway network were first collected between 10:00 AM – 7:00 PM on Saturday, September 24th and Tuesday, September 27th, 2022. Based upon the 2022 traffic counts, three time periods and their corresponding peak hours were determined:

- Weekday mid-day peak hour: 12:00 – 1:00 PM
- Weekday PM peak hour: 4:30 PM – 5:30 PM and
- Saturday mid-day peak hour: 11:30 AM – 12:30 PM

As requested by the town, additional traffic counts were collected in June 2023 to verify the previous counts. The second set of counts were collected between 10:00 AM – 7:00 PM on Thursday June 15th and Saturday June 17th. Based upon the 2023 traffic counts, three time periods and their corresponding peak hours were determined:

- Weekday mid-day peak hour: 12:00 – 1:00 PM
- Weekday PM peak hour: 4:15 PM – 5:15 PM and
- Saturday mid-day peak hour: 1:00 PM – 2:00 PM

Figure 3 shows the traffic volumes for the 2022 peak hours mentioned above. The traffic volumes illustrated in **Figure 3** were evaluated to determine the effective operating conditions of the study area intersections. **Figure 4** shows the traffic volumes for the 2023 peak hours mentioned above. The traffic volumes illustrated in **Figure 4** were evaluated to determine the effective operating conditions of the study area intersections. **Tables 1, 2 and 3** show the traffic operating conditions for the study area intersections during the peak-hour periods for both the 2022 and 2023 traffic count data. **Appendix B** provides detailed reports for the 2022 existing conditions. **Appendix C** provides detailed reports for the 2023 existing conditions.

**TABLE 1
CAPACITY ANALYSIS SUMMARY – WEEKDAY MID-DAY PEAK HOUR**

INTERSECTION	CONTROL TYPE	LANE USE	STORAGE LENGTH (ft)	2022 EXISTING CONDITIONS				2023 EXISTING CONDITIONS					
				LOS	DELAY (sec)	V/C RATIO	QUEUES (ft)		LOS	DELAY (sec)	V/C RATIO	QUEUES (ft)	
							50th%	95th%				50th%	95th%
Main Street & Parker Harding Plaza/Avery Place	ACTUATED-UNCOORDINATED	Overall		B	11.8	0.51			B	13.8	0.55		
		EB-LTR	±260'	B	14.7	0.01	1'	6'	B	18.1	0.42	30'	78'
		WB-LTR	±200'	A	9.8	0.2	7'	34'	B	12.9	0.21	14'	45'
		NB-LTR	±300'	B	13.6	0.42	42'	130'	B	18.9	0.55	54'	154'
		SB-LT	±600'	B	12.9	0.51	37'	131'	B	14	0.54	39'	126'
		SB-R	100'	A	2.7	0.08	0'	16'	A	2.2	0.19	0'	23'
Route 1 (Post Road East) & Jesup Road/Parker Harding Plaza	ACTUATED-COORDINATED	Overall		D	42.8	0.67			D	41.8	0.73		
		EB-L	±440'	A	9.6	0.22	25'	52'	A	9.4	0.14	15'	34'
		EB-TR	±550'	E	68.9	0.59	208'	340'	E	68.9	0.59	209'	323'
		WB-LTTR	±140'	C	25.9	0.45	195'	250'	C	25	0.44	198'	252'
		NB-LTR	±220'	D	50.7	0.67	66'	123'	D	52.1	0.73	86'	158'
		SB-LT	±85'	D	45.9	0.62	75'	132'	D	36.7	0.41	53'	101'
Route 1 (Post Road East) & Main Street/Taylor Place	ACTUATED-COORDINATED	Overall		C	20.8	0.48			C	22.1	0.46		
		EB-L	115'	B	16.3	0.21	50'	84'	B	17.9	0.12	31'	49'
		EB-T	±140'	C	22.5	0.46	273'	302'	C	24.2	0.41	263'	288'
		WB-TT	±820'	C	22.1	0.37	162'	187'	C	21.8	0.37	165'	191'
		WB-R	80'	A	3.7	0.14	0'	26'	A	4.6	0.15	0'	33'
		NB-LTR	±120'	C	26.8	0.48	24'	70'	D	38.7	0.46	39'	82'
Route 1 (Post Road East) & Imperial Avenue/ Myrtle Avenue	ACTUATED-COORDINATED	Overall		C	25.1	0.63			D	42.4	0.93		
		EB-LTTR	±600'	B	12.4	0.34	99'	198'	C	22.9	0.4	119'	179'
		WB-LTT	±650'	C	29.3	0.6	198'	385'	E	58.4	0.93	296'	432'
		WB-R	200'	C	26.1	0.35	115'	237'	D	38.5	0.53	152'	239'
		NB-LTR	±550'	E	59.7	0.52	57'	104'	E	61.9	0.83	196'	363'
		SB-L	75'	D	45.1	0.63	126'	220'	C	31.5	0.61	120'	333'
Myrtle Avenue & Church Lane	UNSIGNALIZED	EB-LR	75'	C	15.8	0.069		5'	C	18.7	0.133		13'
		NB-LT	±210'	A	8.1	0.084		8'	A	8.3	0.091		8'
		SB-TR	±350'	A	0	0		0'	A	0	0		0'

**TABLE 2
CAPACITY ANALYSIS SUMMARY – WEEKDAY PM PEAK HOUR**

INTERSECTION	CONTROL TYPE	LANE USE	STORAGE LENGTH (ft)	2022 EXISTING CONDITIONS					2023 EXISTING CONDITIONS				
				LOS	DELAY (sec)	V/C RATIO	QUEUES (ft)		LOS	DELAY (sec)	V/C RATIO	QUEUES (ft)	
							50th%	95th%				50th%	95th%
Main Street & Parker Harding Plaza/Avery Place	ACTUATED-UNCOORDINATED	Overall		B	11.4	0.42			B	11.0	0.44		
		EB-LTR	±260'	B	18.4	0.38	27'	65'	B	18.1	0.34	23'	61'
		WB-LTR	±200'	B	11.6	0.24	11'	39'	B	10.7	0.22	9'	36'
		NB-LTR	±300'	B	14.8	0.41	38'	119'	B	13.8	0.36	35'	109'
		SB-LT	±600'	B	10.2	0.42	28'	104'	B	10.2	0.44	30'	111'
		SB-R	100'	A	2.2	0.15	0'	22'	A	2.2	0.13	0'	20'
Route 1 (Post Road East) & Jesup Road/Parker Harding Plaza	ACTUATED-COORDINATED	Overall		D	44.3	0.6			D	44.3	0.59		
		EB-L	±440'	A	7.9	0.08	9'	26'	A	8	0.09	12'	31'
		EB-TR	±550'	E	68.8	0.6	212'	384'	E	68.5	0.59	209'	375'
		WB-LTTR	±140'	C	25.8	0.36	175'	228'	C	23.5	0.3	144'	194'
		NB-LTR	±220'	D	41.7	0.5	49'	91'	D	42.6	0.51	51'	95'
		SB-LT	±85'	D	40.6	0.43	47'	86'	D	36.9	0.31	32'	65'
		SB-R	±85'	A	9.6	0.43	0'	48'	A	9.6	0.41	0'	47'
Route 1 (Post Road East) & Main Street/Taylor Place	ACTUATED-COORDINATED	Overall		C	33.5	0.58			C	25.8	0.52		
		EB-L	115'	B	16	0.09	23'	43'	B	17.7	0.07	21'	43'
		EB-T	±140'	D	45.3	0.58	370'	483'	C	30.2	0.52	377'	488'
		WB-TT	±820'	C	25.1	0.41	154'	182'	C	24.3	0.33	132'	161'
		WB-R	80'	A	2	0.12	0'	13'	A	2.7	0.13	0'	19'
		NB-LTR	±120'	C	30.1	0.33	17'	53'	C	32.3	0.31	18'	52'
Route 1 (Post Road East) & Imperial Avenue/ Myrtle Avenue	ACTUATED-COORDINATED	Overall		C	34.6	0.82			D	35.3	0.82		
		EB-LTTR	±600'	C	22.7	0.47	165'	276'	C	22.5	0.44	150'	247'
		WB-LTT	±650'	D	38.7	0.62	198'	265'	D	40	0.66	194'	261'
		WB-R	200'	C	34.5	0.31	86'	147'	D	35.9	0.38	108'	178'
		NB-LTR	±550'	E	63.9	0.82	185'	313'	E	63.6	0.82	183'	305'
		SB-L	75'	D	36	0.68	125'	212'	D	36.6	0.7	132'	252'
		SB-TR	±350'	B	15.7	0.14	34'	79'	B	16.9	0.17	44'	98'
Myrtle Avenue & Church Lane	UNSIGNALIZED	EB-LR	75'	B	13.8	0.077		5'	B	12.2	0.043		3'
		NB-LT	±210'	A	8	0.038		3'	A	7.8	0.047		3'
		SB-TR	±350'	A	0	0		0'	A	0	0		0'

**TABLE 3
CAPACITY ANALYSIS SUMMARY – SATURDAY MID-DAY PEAK HOUR**

INTERSECTION	CONTROL TYPE	LANE USE	STORAGE LENGTH (ft)	2022 EXISTING CONDITIONS				2023 EXISTING CONDITIONS					
				LOS	DELAY (sec)	V/C RATIO	QUEUES (ft)		LOS	DELAY (sec)	V/C RATIO	QUEUES (ft)	
							50th%	95th%				50th%	95th%
Main Street & Parker Harding Plaza/Avery Place	ACTUATED-UNCOORDINATED	Overall		B	11.8	0.48			B	13.9	0.61		
		EB-LTR	±260'	B	15.6	0.32	24'	69'	B	18.4	0.42	36'	90'
		WB-LTR	±200'	B	11.2	0.17	10'	38'	B	14.5	0.23	17'	52'
		NB-LTR	±300'	B	17	0.48	45'	145'	C	20.3	0.61	63'	198'
		SB-LT	±600'	B	10.4	0.34	23'	89'	B	11.6	0.44	33'	110'
		SB-R	100'	A	2.3	0.16	0'	24'	A	2.1	0.19	0'	26'
Route 1 (Post Road East) & Jesup Road/Parker Harding Plaza	ACTUATED-COORDINATED	Overall		D	41.3	0.64			C	32.8	0.66		
		EB-L	±440'	A	9.6	0.23	28'	57'	A	9.6	0.22	22'	47'
		EB-TR	±550'	E	68.1	0.52	177'	292'	D	36.4	0.54	187'	308'
		WB-LTTR	±140'	C	29	0.38	182'	235'	C	34.3	0.49	231'	289'
		NB-LTR	±220'	D	48	0.64	69'	125'	D	49	0.66	68'	124'
		SB-LT	±85'	D	41.6	0.53	65'	116'	D	42.3	0.55	72'	125'
Route 1 (Post Road East) & Main Street/Taylor Place	ACTUATED-COORDINATED	Overall		C	26	0.47			C	22.9	0.46		
		EB-L	115'	B	19.1	0.13	29'	56'	B	14.9	0.15	30'	51'
		EB-T	±140'	C	29.3	0.47	278'	310'	C	22	0.42	230'	253'
		WB-TT	±820'	C	26.3	0.42	153'	185'	C	27.7	0.46	184'	207'
		WB-R	80'	A	2.8	0.14	0'	20'	A	6.5	0.2	11'	47'
		NB-LTR	±120'	C	33.8	0.4	28'	68'	C	26.1	0.38	16'	55'
Route 1 (Post Road East) & Imperial Avenue/ Myrtle Avenue	ACTUATED-COORDINATED	Overall		C	31.8	0.79			D	39.6	0.92		
		EB-LTTR	±600'	B	18.1	0.34	110'	201'	B	18.5	0.36	99'	181'
		WB-LTT	±650'	C	33.3	0.58	198'	291'	D	51.4	0.92	350'	562'
		WB-R	200'	C	32.8	0.45	141'	243'	C	32	0.41	126'	221'
		NB-LTR	±550'	E	64.1	0.79	153'	233'	E	62.5	0.78	158'	238'
		SB-L	75'	D	37.4	0.63	121'	240'	D	39.2	0.67	126'	287'
Myrtle Avenue & Church Lane	UNSIGNALIZED	EB-LR	75'	C	16.1	0.109		10'	C	19.3	0.136		13'
		NB-LT	±210'	A	8	0.086		8'	A	8.3	0.107		10'
		SB-TR	±350'	A	0	0		0'	A	0	0		0'

Analysis Results

The analysis of the study intersections reveals that most of the signalized intersections analyzed will maintain overall acceptable operating conditions for the 2022 and 2023 existing conditions scenarios. During peak periods, some movements may experience congestion to travel through the dense downtown area.

2022 Traffic Volumes – At each of the study intersections for the 2022 existing traffic volumes, the overall level-of-service (LOS) is LOS B and LOS C for all the periods analyzed, an acceptable LOS. The intersection of Route 1 and Parker Harding Plaza is LOS D for all periods analyzed and the eastbound approach is LOS E. This approach serves much of the town traffic to cross the Saugatuck River and get to the downtown from the west. The 95th percentile queue lengths for this approach is less than the available storage length of $\pm 550'$, the length of the bridge, in each of the analyzed scenarios. This approach meters the incoming traffic through the Post Road East corridor through the rest of Westport.

Additionally, the 95th percentile queue lengths of the Post Road East approaches between the intersections of Main Street and Parker Harding Plaza typically exceed the available storage length. This likely causes backups through the corridor, with vehicles getting a green light and not being able to enter the intersections.

Lastly, the northbound approach at the intersection of Route 1 and Imperial Avenue is LOS E in each of the analyzed scenarios with an average delay of about 60 seconds. However, the 95th percentile queues for this approach never exceed the available storage length.

2023 Traffic Volumes – At each of the study intersections for the 2023 existing traffic volumes, the overall level-of-service (LOS) is LOS B and LOS C for all the periods analyzed, an acceptable LOS. The 2023 overall levels-of-service and operations for the study intersections were similar to the 2022 traffic volumes, with slight changes based on the expected day-to-day variation in traffic. The intersection of Route 1 and Parker Harding Plaza is LOS D for all weekday periods analyzed and the eastbound approach is LOS E.

The intersection of Route 1 and Myrtle Avenue/Imperial Avenue changes from LOS C to LOS D between the 2022 and 2023 count data. We noted higher volumes for the westbound approach during the peak periods, which caused the overall LOS to change. The northbound approach at this intersection is LOS E in each of the analyzed scenarios with an average delay of about 60 seconds. However, the 95th percentile queues for this approach never exceed the available storage length.

SAFETY ANALYSIS

Accidents

Langan analyzed the most recent three years of intersection accident data available from the UConn Connecticut Crash Data Repository in the vicinity of the project and study intersections.

Table 5 provides a summary of the accident data at the proposed development's driveway.

TABLE 5 ACCIDENT DATA SUMMARY (2019 - 2021)									
INTERSECTION	NUMBER OF ACCIDENTS		SEVERITY			CONDITIONS			
	Total	Average Per Year	Property Damage Only	Personal Injury	Fatality	Clear (Dry)	Rain/Snow	Day	Night
Parker Harding Plaza & Route 1	38	12.67	32 (84%)	6 (16%)	0 (0%)	31 (82%)	7 (18%)	32 (84%)	6 (16%)
Main Street & Route 1	3	1.00	1 (33%)	2 (67%)	0 (0%)	3 (100%)	0 (0%)	1 (33%)	2 (67%)
Myrtle Avenue & Route 1	16	5.33	15 (94%)	1 (6%)	0 (0%)	9 (56%)	7 (44%)	11 (69%)	5 (31%)
Church Lane & Myrtle Avenue	1	0.33	1 (100%)	0 (0%)	0 (0%)	1 (100%)	0 (0%)	1 (100%)	0 (0%)
Main Street & Parker Harding Plaza	2	0.67	1 (50%)	1 (50%)	0 (0%)	2 (100%)	0 (0%)	1 (50%)	1 (50%)
TOTAL	60	20.00	50 (83%)	10 (17%)	0 (0%)	46 (77%)	14 (23%)	46 (77%)	14 (23%)

Source: UConn Crash Data Repository (2019 - 2021)

Accidents included rear-end, sideswipe (same direction), sideswipe (opposite direction), and angle collisions. Of the reported accident 10 (17%) caused personal injuries and the remainder 50 of the reported accidents (83%) resulted in property damage only, no fatalities were reported. The majority of accidents also occurred in dry weather conditions (77%) and day-time hours (77%).

Table 5 only identifies accidents associated with an intersection, however, there were two pedestrian accidents on Jesup Road and Elm Street that also must be noted. A pedestrian was struck crossing Elm Street by a vehicle in December 2019 and another was struck walking on the sidewalk of Jesup Road in June 2020.

Although the accident data only shows the last full three years, two pedestrian accidents were noted in June and November 2022. These accidents both took place at the signed crosswalk across Route 1 and 87 Post Road East (Patagonia). No reason for these was indicated in the accident data reviewed.

Speed Data

Speed data was collected for a 48-hour period during consecutive weekdays on Parker Harding Plaza in June 2023 to verify existing vehicle speed in the study area. Automatic Traffic Recorders (ATRs) were placed on Parker Harding Plaza one-way southbound to understand the speeds on the road. The collected speed data is available in **Appendix D**.

The assumed speed limit of Parker Harding Plaza is 25 miles per hour (MPH) since it is not posted. A review of the 48-hour speed data indicated the 15th, 50th, 85th and 95th percentile speed at the data collection location. 85th percentile speed is noted in the Connecticut Highway Design Manual to represent the design speed of a roadway, where 85 percent of vehicles travel at or under this speed. Industry standard practice is to use 85th percentile speed as the design speed of a roadway. **Table 6** below shows the calculated percentile speeds for Parker Harding Plaza.

TABLE 6 SPEED DATA SUMMARY	
PERCENTILE	SPEED (MPH)
15 th Percentile	19 MPH
50 th Percentile	23 MPH
85 th Percentile	28 MPH
95 th Percentile	31 MPH

Source: ATR speeds collected June 2023

Based on the speed data collected, most vehicles travel at or below 25 MPH. The 85th percentile speed is 28 MPH, which is slightly above the assumed speed limit of the road. The collected data also shows that approximately 7.5% of vehicles travel above 30 MPH and approximately 1% of vehicles travel faster than 35 MPH.

CONCLUSION

This assessment investigates the existing traffic operations traffic of downtown Westport in preparation for the potential improvements of the Parker Harding Plaza parking lot.

Our evaluation indicates that, in general, the existing roadway network operates at acceptable levels-of-service within the project vicinity. The existing roadway network was analyzed based on traffic volumes counted in September 2022 and was re-evaluated using traffic volumes counted in June 2023 to confirm that the original counts at the request of the town. The 2023

traffic volumes were evaluated in the same traffic operations model as the 2022 traffic volumes and similar results were produced. Our revised analysis indicates that despite expected variations in day-to-day traffic, the original analysis is confirmed. We will continue to evaluate the potential project options as the design progresses.

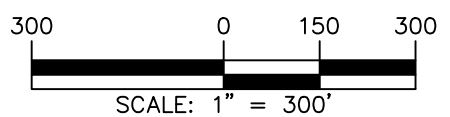
\\langan.com\data\NH\data2\140251201\Project Data\Discipline\Traffic\Reports\Expanded Existing Traffic Assessment\140251201 - Westport Downtown - Amended Existing Traffic Assessment.docx

Appendix A

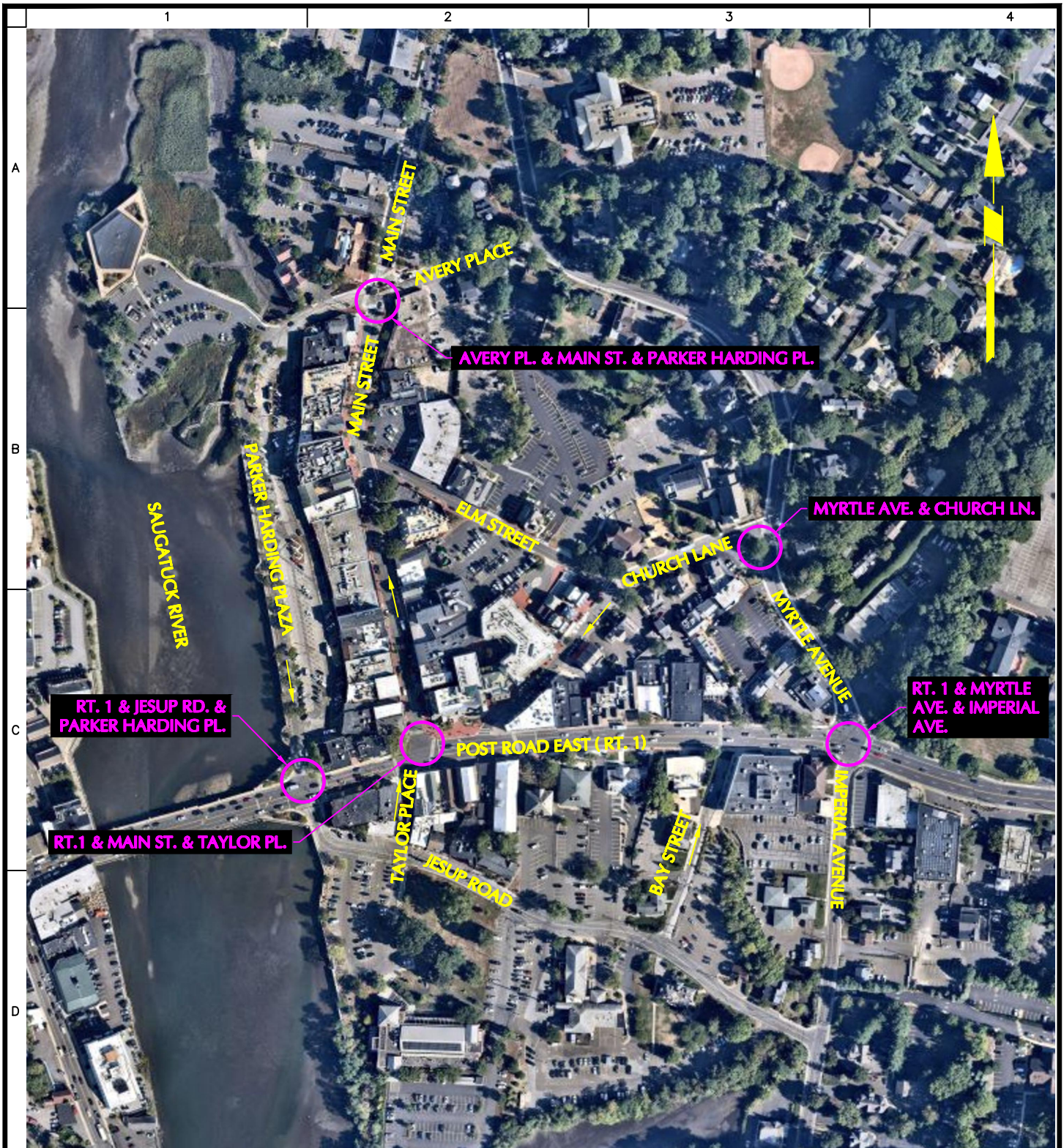
Traffic Figures



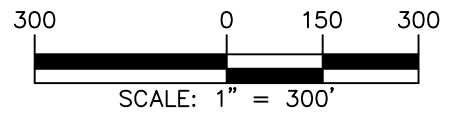
NOTE: BASEMAP AERIAL FROM NEARMAP
 IMAGE ACCESSED 11/08/2022



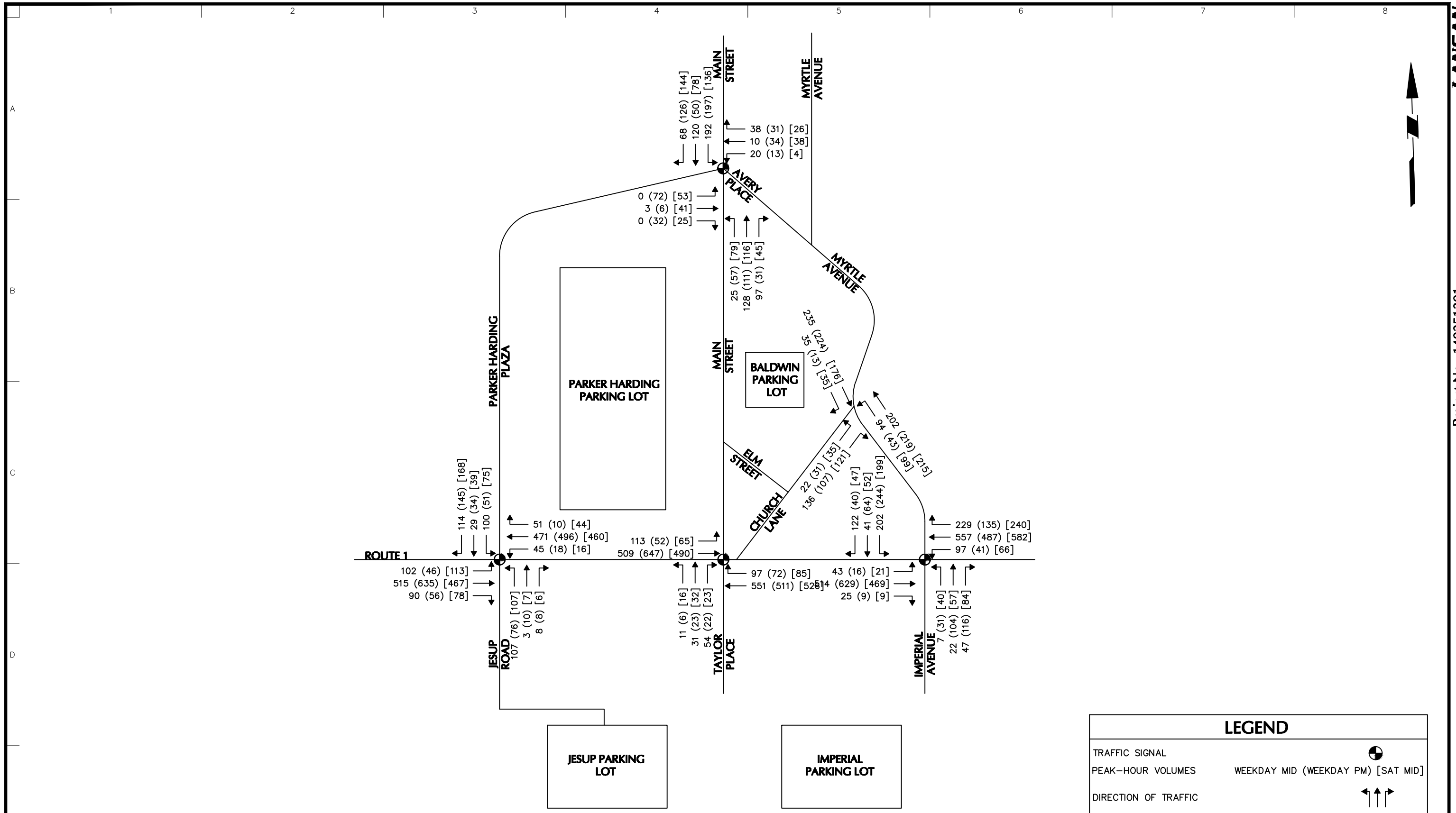
<p>Langan CT, Inc. 555 Long Wharf Drive New Haven, CT 06511</p> <p>T: 203.562.5771 F: 203.789.6142 www.langan.com</p>	Project	DOWNTOWN IMPROVEMENT PROJECTS WESTPORT FAIRFIELD COUNTY CONNECTICUT	Drawing Title	Project No.	FIG. 1	
			SITE LOCATION MAP	140251201		
				Date		11/08/2022
				Drawn By		MS
			Checked By	CJM		



NOTE: BASEMAP AERIAL FROM NEARMAP
 IMAGE ACCESSED 11/08/2022

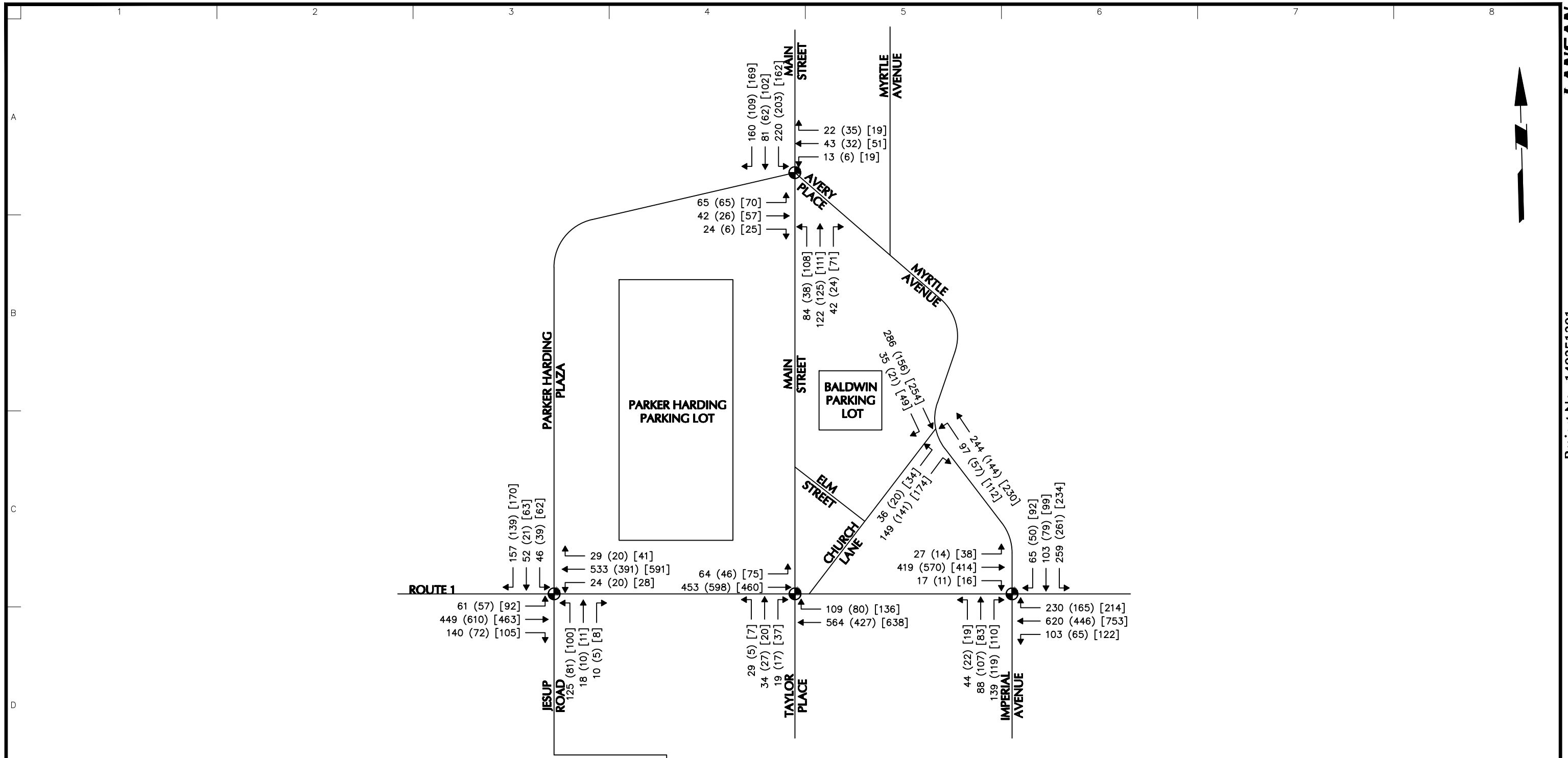


<p>Langan CT, Inc. 555 Long Wharf Drive New Haven, CT 06511</p> <p>T: 203.562.5771 F: 203.789.6142 www.langan.com</p>	Project DOWNTOWN IMPROVEMENT PROJECTS WESTPORT FAIRFIELD COUNTY CONNECTICUT	Drawing Title STUDY INTERSECTION MAP		Project No. 140251201	Drawing No. FIG. 2
		Date 11/08/2022		Drawn By MS	
				Checked By CJM	



NOTES:
 1. MIDDAY, EVENING AND SATURDAY PEAK HOUR ADJUSTED VOLUMES SHOWN BASED ON TRAFFIC VOLUMES OBSERVED ON SEPTEMBER 24 & 27, 2022.

<p>LANGAN Langan Engineering and Environmental Services, Inc. 555 Long Wharf Drive New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com</p>	Project	DOWNTOWN IMPROVEMENT PROJECTS	Drawing Title	2022 EXISTING PEAK HOUR TRAFFIC VOLUMES	Project No.	140251201	Drawing No.	FIG. 3
		WESTPORT FAIRFIELD COUNTY CONNECTICUT			Date	10/18/2022		
					Drawn By	MS		
					Checked By	CJM		Sheet 0 of 1



LEGEND	
TRAFFIC SIGNAL	
PEAK-HOUR VOLUMES	WEEKDAY MID (WEEKDAY PM) [SAT MID]
DIRECTION OF TRAFFIC	

NOTES:
 1. MIDDAY , EVENING AND SATURDAY PEAK HOUR ADJUSTED VOLUMES SHOWN BASED ON TRAFFIC VOLUMES OBSERVED ON JUNE 15 AND 17, 2023.

<p>LANGAN Langan Engineering and Environmental Services, Inc. 555 Long Wharf Drive New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com</p>	Project	DOWNTOWN IMPROVEMENT PROJECTS	Drawing Title	2023 EXISTING PEAK HOUR TRAFFIC VOLUMES	Project No.	140251201	Drawing No.	FIG. 4
		WESTPORT FAIRFIELD COUNTY CONNECTICUT			Date	08/02/2023		
					Drawn By	CJM		
					Checked By	CJM		
							Sheet 0 of 1	

Appendix B

2022 Existing Capacity Analysis

2022 Existing Weekday Midday

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Volume (vph)	0	3	0	20	10	38	25	128	97	192	120	68
Future Volume (vph)	0	3	0	20	10	38	25	128	97	192	120	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	13	11	11	11	12	12	10
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.925			0.948				0.850
Fl _t Protected					0.986			0.995			0.970	
Satd. Flow (prot)	0	1538	0	0	1781	0	0	1533	0	0	1825	1478
Fl _t Permitted					0.914			0.944			0.669	
Satd. Flow (perm)	0	1538	0	0	1651	0	0	1455	0	0	1259	1478
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					44			51				79
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1014			395			350				669
Travel Time (s)		23.0			9.0			8.0				15.2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	40%	0%	0%	0%	1%	0%	1%	3%	1%	1%	2%
Parking (#/hr)								0				
Adj. Flow (vph)	0	3	0	23	12	44	29	149	113	223	140	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	79	0	0	291	0	0	363	79
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	0.96	1.04	1.19	1.04	1.00	1.00	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA		Perm	NA		custom	NA	Prot
Protected Phases		4			8			6		5	2.5	2.5
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6	6		5	2.5	2.5
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		5.0		
Minimum Split (s)	12.3	12.3		12.3	12.3		20.3	20.3		9.3		
Total Split (s)	30.3	30.3		30.3	30.3		30.3	30.3		9.3		
Total Split (%)	43.3%	43.3%		43.3%	43.3%		43.3%	43.3%		13.3%		
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		5.0		
Yellow Time (s)	3.1	3.1		3.1	3.1		3.3	3.3		3.3		
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.3			5.3			5.3				
Lead/Lag												
Lead-Lag Optimize?												

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	20.3
Total Split (s)	30.3
Total Split (%)	43%
Maximum Green (s)	25.0
Yellow Time (s)	3.3
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Recall Mode	None	None		None	None		Min	Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		13.0	13.0				
Pedestrian Calls (#/hr)	40	40		40	40		40	40				
Act Effct Green (s)		12.3			12.3			24.9			29.1	35.9
Actuated g/C Ratio		0.22			0.22			0.45			0.53	0.66
v/c Ratio		0.01			0.20			0.42			0.51	0.08
Control Delay		14.7			9.8			13.6			12.9	2.7
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		14.7			9.8			13.6			12.9	2.7
LOS		B			A			B			B	A
Approach Delay		14.7			9.8			13.6			11.1	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		1			7			42			37	0
Queue Length 95th (ft)		6			34			130			131	16
Internal Link Dist (ft)		934			315			270			589	
Turn Bay Length (ft)												100
Base Capacity (vph)		726			802			770			782	1074
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.00			0.10			0.38			0.46	0.07

Intersection Summary

Area Type:	Other
Cycle Length:	69.9
Actuated Cycle Length:	54.8
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	11.8
Intersection LOS:	B
Intersection Capacity Utilization:	54.9%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Main Street & Parker Harding Plaza/Avery Place



1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings





















Existing Weekday Mid-day

Lane Group	Ø2
Vehicle Extension (s)	2.0
Recall Mode	Min
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	40
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	515	90	45	471	51	107	3	8	100	29	114
Future Volume (vph)	102	515	90	45	471	51	107	3	8	100	29	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	13	10	10	10	12	12	12	11	11	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.987			0.991				0.850
Flt Protected	0.950				0.996			0.957			0.963	
Satd. Flow (prot)	1711	1846	0	0	3188	0	0	1767	0	0	1730	1531
Flt Permitted	0.355				0.864			0.607			0.762	
Satd. Flow (perm)	639	1846	0	0	2765	0	0	1121	0	0	1369	1531
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			15			4				143
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		657			241			300			206	
Travel Time (s)		14.9			5.5			6.8			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
Heavy Vehicles (%)	2%	4%	4%	4%	4%	3%	2%	8%	0%	2%	3%	2%
Adj. Flow (vph)	111	560	98	49	512	55	116	3	9	109	32	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	111	658	0	0	616	0	0	128	0	0	141	124
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	0.96	0.96	1.09	1.09	1.09	1.00	1.00	1.00	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	custom	NA		custom	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	12		3	23			4			4	
Permitted Phases	2			2			4			4		4
Detector Phase	1	12		3	23		4	4		4	4	4
Switch Phase												
Minimum Initial (s)	5.0			5.0			8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0			11.0			13.4	13.4		13.4	13.4	13.4
Total Split (s)	14.0			11.0			24.0	24.0		24.0	24.0	24.0
Total Split (%)	15.6%			12.2%			26.7%	26.7%		26.7%	26.7%	26.7%
Maximum Green (s)	10.0			5.0			18.6	18.6		18.6	18.6	18.6
Yellow Time (s)	3.0			3.8			3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.0			2.2			2.1	2.1		2.1	2.1	2.1
Lost Time Adjust (s)	0.0							0.0			0.0	0.0
Total Lost Time (s)	4.0							5.4			5.4	5.4
Lead/Lag	Lead			Lead			Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	1.0			1.0			4.0	4.0		4.0	4.0	4.0
Recall Mode	None			None			None	None		None	None	None
Walk Time (s)							7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)							8.0	8.0		8.0	8.0	8.0

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	13.0
Minimum Split (s)	17.8
Total Split (s)	41.0
Total Split (%)	46%
Maximum Green (s)	36.2
Yellow Time (s)	3.8
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	C-Max
Walk Time (s)	
Flash Dont Walk (s)	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
Lanes, Volumes, Timings

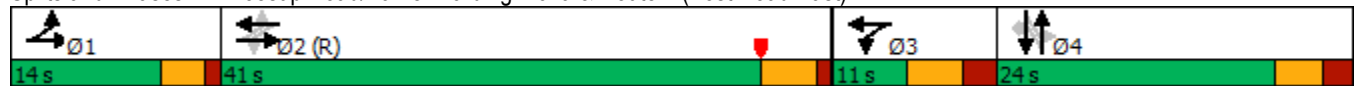
Existing Weekday Mid-day

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Pedestrian Calls (#/hr)							27	27		27	27	27
Act Effct Green (s)	50.5	54.5			43.6			15.1			15.1	15.1
Actuated g/C Ratio	0.56	0.61			0.48			0.17			0.17	0.17
v/c Ratio	0.22	0.59			0.45			0.67			0.62	0.33
Control Delay	9.6	14.0			23.4			50.7			45.9	6.6
Queue Delay	0.0	54.9			2.5			0.0			0.0	0.0
Total Delay	9.6	68.9			25.9			50.7			45.9	6.6
LOS	A	E			C			D			D	A
Approach Delay		60.3			25.9			50.7			27.5	
Approach LOS		E			C			D			C	
Queue Length 50th (ft)	25	208			195			66			75	0
Queue Length 95th (ft)	52	340			250			123			132	35
Internal Link Dist (ft)		577			161			220			126	
Turn Bay Length (ft)												
Base Capacity (vph)	504	1123			1376			234			282	429
Starvation Cap Reductn	0	0			612			0			0	0
Spillback Cap Reductn	0	668			0			1			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.22	1.45			0.81			0.55			0.50	0.29

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 30 (33%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 42.8
 Intersection LOS: D
 Intersection Capacity Utilization 73.6%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)



2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings


















Existing Weekday Mid-day

Lane Group	Ø2
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	509	0	0	551	97	11	31	54	0	0	0
Future Volume (vph)	113	509	0	0	551	97	11	31	54	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	11	10	11	11	11	12	12	12
Storage Length (ft)	115		0	0		80	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.850		0.925				
Fl _t Protected	0.950							0.994				
Satd. Flow (prot)	1668	1705	0	0	3388	1463	0	1609	0	0	0	0
Fl _t Permitted	0.369							0.994				
Satd. Flow (perm)	648	1705	0	0	3388	1463	0	1609	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						120		57				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		241			911			212				666
Travel Time (s)		5.5			20.7			4.8				15.1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	4%	0%	0%	3%	3%	23%	0%	4%	0%	0%	0%
Adj. Flow (vph)	120	541	0	0	586	103	12	33	57	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	541	0	0	586	103	0	102	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.04	1.09	1.04	1.04	1.04	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA			NA	Perm	Split	NA				
Protected Phases	1	1 2			2		6	6				
Permitted Phases	2					2						
Detector Phase	1	1			2	2	6	6				
Switch Phase												
Minimum Initial (s)	5.0				15.0	15.0	7.0	7.0				
Minimum Split (s)	9.0				19.8	19.8	11.9	11.9				
Total Split (s)	14.0				44.0	44.0	22.0	22.0				
Total Split (%)	15.6%				48.9%	48.9%	24.4%	24.4%				
Maximum Green (s)	10.0				39.2	39.2	17.1	17.1				
Yellow Time (s)	3.0				3.8	3.8	3.0	3.0				
All-Red Time (s)	1.0				1.0	1.0	1.9	1.9				
Lost Time Adjust (s)	0.0				0.0	0.0		0.0				
Total Lost Time (s)	4.0				4.8	4.8		4.9				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	2.0				3.0	3.0	3.0	3.0				













3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	23.0
Total Split (s)	10.0
Total Split (%)	11%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0

3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None			C-Min			C-Min		None		None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	57.7	62.5			42.1	42.1		9.0				
Actuated g/C Ratio	0.64	0.69			0.47	0.47		0.10				
v/c Ratio	0.21	0.46			0.37	0.14		0.48				
Control Delay	16.1	19.8			21.4	3.7		26.7				
Queue Delay	0.2	2.7			0.7	0.0		0.1				
Total Delay	16.3	22.5			22.1	3.7		26.8				
LOS	B	C			C	A		C				
Approach Delay		21.4			19.4			26.8				
Approach LOS		C			B			C				
Queue Length 50th (ft)	50	273			162	0		24				
Queue Length 95th (ft)	m84	302			187	26		70				
Internal Link Dist (ft)		161			831			132			586	
Turn Bay Length (ft)	115					80						
Base Capacity (vph)	593	1179			1876	863		351				
Starvation Cap Reductn	143	502			0	0		0				
Spillback Cap Reductn	0	0			900	0		15				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.27	0.80			0.60	0.12		0.30				

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	20.8
Intersection LOS:	C
Intersection Capacity Utilization:	40.0%
ICU Level of Service:	A
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Taylor Place/Main Street & Route 1 (Post Road East)



3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings



















Existing Weekday Mid-day

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	56
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	514	25	97	557	229	7	22	47	202	41	122
Future Volume (vph)	43	514	25	97	557	229	7	22	47	202	41	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	10	11	11	11	12	16	16
Storage Length (ft)	0		185	0		200	0		0	75		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.993				0.850		0.916			0.888	
Fl _t Protected		0.996			0.993			0.996		0.950		
Satd. Flow (prot)	0	3351	0	0	3369	1478	0	1596	0	1787	1861	0
Fl _t Permitted		0.866			0.739			0.957		0.633		
Satd. Flow (perm)	0	2913	0	0	2507	1478	0	1533	0	1191	1861	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		4										130
Link Speed (mph)		30			30			30				30
Link Distance (ft)		911			785			648				491
Travel Time (s)		20.7			17.8			14.7				11.2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	3%	2%	4%	1%	7%	1%	2%	3%
Adj. Flow (vph)	46	547	27	103	593	244	7	23	50	215	44	130
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	620	0	0	696	244	0	80	0	215	174	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.09	1.04	1.04	1.04	1.00	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA		Perm	NA	Prot	Perm	NA		D.P+P	NA	
Protected Phases	1	1 2			2	2		5		4	4 5	
Permitted Phases	2			2			5			5		
Detector Phase	1	1		2	2	2	5	5		4	4	
Switch Phase												
Minimum Initial (s)	5.0			15.0	15.0	15.0	7.0	7.0		5.0		
Minimum Split (s)	9.0			20.7	20.7	20.7	12.1	12.1		9.0		
Total Split (s)	9.0			39.0	39.0	39.0	30.0	30.0		12.0		
Total Split (%)	7.9%			34.2%	34.2%	34.2%	26.3%	26.3%		10.5%		
Maximum Green (s)	5.0			33.3	33.3	33.3	24.9	24.9		8.0		
Yellow Time (s)	3.0			3.6	3.6	3.6	3.0	3.0		3.0		
All-Red Time (s)	1.0			2.1	2.1	2.1	2.1	2.1		1.0		
Lost Time Adjust (s)					0.0	0.0		0.0		0.0		
Total Lost Time (s)					5.7	5.7		5.1		4.0		
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0	3.0		3.0		

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

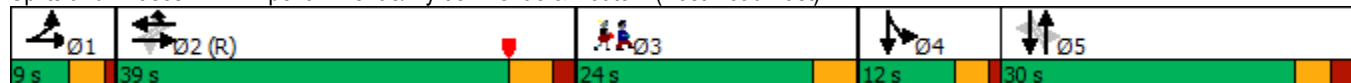
Existing Weekday Mid-day

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Recall Mode	Min		C-Max			C-Max	None		None	None			
Walk Time (s)													
Flash Dont Walk (s)													
Pedestrian Calls (#/hr)													
Act Effct Green (s)	68.5			53.2			53.2			11.5		25.5 28.7	
Actuated g/C Ratio	0.60			0.47			0.47			0.10		0.22 0.25	
v/c Ratio	0.34			0.60			0.35			0.52		0.63 0.31	
Control Delay	12.4			29.3			26.1			59.7		45.1 11.1	
Queue Delay	0.0			0.0			0.0			0.0		0.0	
Total Delay	12.4			29.3			26.1			59.7		45.1 11.1	
LOS	B			C			C			E		D B	
Approach Delay	12.4			28.4						59.7		29.9	
Approach LOS	B			C						E		C	
Queue Length 50th (ft)	99			198			115			57		126 23	
Queue Length 95th (ft)	198			#385			237			104		#220 81	
Internal Link Dist (ft)	831			705						568		411	
Turn Bay Length (ft)							200					75	
Base Capacity (vph)	1804			1168			689			334		342 565	
Starvation Cap Reductn	0			0			0			0		0	
Spillback Cap Reductn	0			0			0			0		0	
Storage Cap Reductn	0			0			0			0		0	
Reduced v/c Ratio	0.34			0.60			0.35			0.24		0.63 0.31	

Intersection Summary

Area Type: Other
 Cycle Length: 114
 Actuated Cycle Length: 114
 Offset: 45 (39%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 25.1 Intersection LOS: C
 Intersection Capacity Utilization 63.7% 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: 4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)



4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	6
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Myrtle Avenue & Church Lane Lanes, Volumes, Timings

Existing Weekday Mid-day



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	136	94	202	235	35
Future Volume (vph)	22	136	94	202	235	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	15	15	15	15
Storage Length (ft)	75	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.850			0.983	
Fl _t Protected	0.950			0.984		
Satd. Flow (prot)	2025	1812	0	2016	2014	0
Fl _t Permitted	0.950			0.984		
Satd. Flow (perm)	2025	1812	0	2016	2014	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	381			491	244	
Travel Time (s)	8.7			11.2	5.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Adj. Flow (vph)	25	153	106	227	264	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	153	0	333	303	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	28			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.88	0.88	0.88	0.88
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	43.7%			ICU Level of Service A		
Analysis Period (min)	15					

5: Myrtle Avenue & Church Lane
 HCM 6th TWSC

Existing Weekday Mid-day

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	136	94	202	235	35
Future Vol, veh/h	22	136	94	202	235	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	25	153	106	227	264	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	723	284	303	0	-	0
Stage 1	284	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	395	757	1258	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	357	757	1258	-	-	-
Mov Cap-2 Maneuver	357	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	652	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1258	-	357	757	-	-
HCM Lane V/C Ratio	0.084	-	0.069	0.202	-	-
HCM Control Delay (s)	8.1	0	15.8	11	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	0.8	-	-

2022 Existing Weekday Evening

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Volume (vph)	72	32	6	13	34	31	57	111	31	197	50	126
Future Volume (vph)	72	32	6	13	34	31	57	111	31	197	50	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	13	11	11	11	12	12	10
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.993			0.946			0.979				0.850
Fl _t Protected		0.968			0.992			0.986			0.962	
Satd. Flow (prot)	0	2057	0	0	1818	0	0	1558	0	0	1782	1478
Fl _t Permitted		0.749			0.921			0.840			0.671	
Satd. Flow (perm)	0	1592	0	0	1688	0	0	1327	0	0	1243	1478
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			36			15				145
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1014			395			350				669
Travel Time (s)		23.0			9.0			8.0				15.2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	1%	6%	3%	2%	0%	4%	2%	1%	3%	1%	2%
Parking (#/hr)								0				
Adj. Flow (vph)	83	37	7	15	39	36	66	128	36	226	57	145
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	0	0	90	0	0	230	0	0	283	145
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	0.96	1.04	1.19	1.04	1.00	1.00	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	Prot
Protected Phases		4			8			6		5	2.5	2.5
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6	6		5	2.5	2.5
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		5.0		
Minimum Split (s)	12.3	12.3		12.3	12.3		20.3	20.3		9.3		
Total Split (s)	30.3	30.3		30.3	30.3		30.3	30.3		9.3		
Total Split (%)	43.3%	43.3%		43.3%	43.3%		43.3%	43.3%		13.3%		
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		5.0		
Yellow Time (s)	3.1	3.1		3.1	3.1		3.3	3.3		3.3		
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.3			5.3			5.3				
Lead/Lag												
Lead-Lag Optimize?												

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	20.3
Total Split (s)	30.3
Total Split (%)	43%
Maximum Green (s)	25.0
Yellow Time (s)	3.3
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday PM

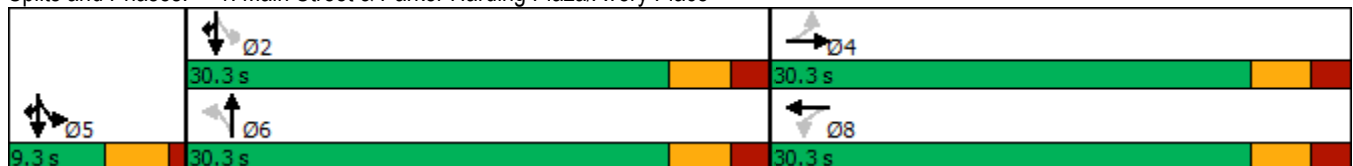


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Recall Mode	None	None		None	None		Min	Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		13.0	13.0				
Pedestrian Calls (#/hr)	20	20		20	20		20	20				
Act Effct Green (s)		9.9			9.9			19.6			23.7	30.2
Actuated g/C Ratio		0.21			0.21			0.41			0.50	0.64
v/c Ratio		0.38			0.24			0.41			0.42	0.15
Control Delay		18.4			11.6			14.8			10.2	2.2
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		18.4			11.6			14.8			10.2	2.2
LOS		B			B			B			B	A
Approach Delay		18.4			11.6			14.8			7.5	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		27			11			38			28	0
Queue Length 95th (ft)		65			39			119			104	22
Internal Link Dist (ft)		934			315			270			589	
Turn Bay Length (ft)												100
Base Capacity (vph)		865			932			755			856	1198
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.15			0.10			0.30			0.33	0.12

Intersection Summary

Area Type:	Other
Cycle Length:	69.9
Actuated Cycle Length:	47.3
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	11.4
Intersection LOS:	B
Intersection Capacity Utilization:	52.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Main Street & Parker Harding Plaza/Avery Place



1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings





















Existing Weekday PM

Lane Group	Ø2
Vehicle Extension (s)	2.0
Recall Mode	Min
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	20
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	635	56	18	496	10	76	10	8	51	34	145
Future Volume (vph)	46	635	56	18	496	10	76	10	8	51	34	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	13	10	10	10	12	12	12	11	11	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.997			0.989				0.850
Flt Protected	0.950				0.998			0.961			0.971	
Satd. Flow (prot)	1745	1888	0	0	3288	0	0	1780	0	0	1725	1546
Flt Permitted	0.402				0.927			0.707			0.799	
Satd. Flow (perm)	738	1888	0	0	3054	0	0	1310	0	0	1419	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			3			5				149
Link Speed (mph)		30			30			30				30
Link Distance (ft)		657			241			300				206
Travel Time (s)		14.9			5.5			6.8				4.7
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	0%	2%	2%	0%	1%	6%	0%	5%	1%	1%
Adj. Flow (vph)	47	655	58	19	511	10	78	10	8	53	35	149
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	713	0	0	540	0	0	96	0	0	88	149
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	0.96	0.96	1.09	1.09	1.09	1.00	1.00	1.00	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	custom	NA		custom	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	12		3	23			4			4	
Permitted Phases	2			2			4			4		4
Detector Phase	1	12		3	23		4	4		4	4	4
Switch Phase												
Minimum Initial (s)	5.0			5.0			8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0			11.0			13.4	13.4		13.4	13.4	13.4
Total Split (s)	14.0			11.0			24.0	24.0		24.0	24.0	24.0
Total Split (%)	15.6%			12.2%			26.7%	26.7%		26.7%	26.7%	26.7%
Maximum Green (s)	10.0			5.0			18.6	18.6		18.6	18.6	18.6
Yellow Time (s)	3.0			3.8			3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.0			2.2			2.1	2.1		2.1	2.1	2.1
Lost Time Adjust (s)	0.0							0.0			0.0	0.0
Total Lost Time (s)	4.0							5.4			5.4	5.4
Lead/Lag	Lead			Lead			Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	1.0			1.0			4.0	4.0		4.0	4.0	4.0
Recall Mode	None			None			None	None		None	None	None
Walk Time (s)							7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)							8.0	8.0		8.0	8.0	8.0

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	13.0
Minimum Split (s)	17.8
Total Split (s)	41.0
Total Split (%)	46%
Maximum Green (s)	36.2
Yellow Time (s)	3.8
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	C-Max
Walk Time (s)	
Flash Dont Walk (s)	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
Lanes, Volumes, Timings

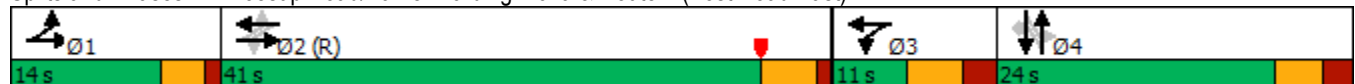
Existing Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Pedestrian Calls (#/hr)							27	27		27	27	27
Act Effct Green (s)	52.7	56.7			43.8			12.9			12.9	12.9
Actuated g/C Ratio	0.59	0.63			0.49			0.14			0.14	0.14
v/c Ratio	0.08	0.60			0.36			0.50			0.43	0.43
Control Delay	7.9	13.3			24.3			41.7			40.6	9.6
Queue Delay	0.0	55.5			1.5			0.0			0.0	0.0
Total Delay	7.9	68.8			25.8			41.7			40.6	9.6
LOS	A	E			C			D			D	A
Approach Delay		65.0			25.8			41.7			21.1	
Approach LOS		E			C			D			C	
Queue Length 50th (ft)	9	212			175			49			47	0
Queue Length 95th (ft)	26	384			228			91			86	48
Internal Link Dist (ft)		577			161			220			126	
Turn Bay Length (ft)												
Base Capacity (vph)	592	1191			1503			274			293	437
Starvation Cap Reductn	0	0			739			0			0	0
Spillback Cap Reductn	0	765			0			2			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.08	1.67			0.71			0.35			0.30	0.34

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	30 (33%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle:	55
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	44.3
Intersection LOS:	D
Intersection Capacity Utilization:	57.9%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)



2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings


















Existing Weekday PM

Lane Group	Ø2
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	647	0	0	511	72	6	23	22	0	0	0
Future Volume (vph)	52	647	0	0	511	72	6	23	22	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	11	10	11	11	11	12	12	12
Storage Length (ft)	115		0	0		80	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.850		0.942				
Fl _t Protected	0.950							0.994				
Satd. Flow (prot)	1636	1722	0	0	3421	1492	0	1684	0	0	0	0
Fl _t Permitted	0.361							0.994				
Satd. Flow (perm)	622	1722	0	0	3421	1492	0	1684	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						120		24				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		241			911			212				666
Travel Time (s)		5.5			20.7			4.8				15.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	0%	0%	2%	1%	17%	0%	0%	0%	0%	0%
Adj. Flow (vph)	57	703	0	0	555	78	7	25	24	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	703	0	0	555	78	0	56	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.04	1.09	1.04	1.04	1.04	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA			NA	Perm	Split	NA				
Protected Phases	1	1 2			2		6	6				
Permitted Phases	2					2						
Detector Phase	1	1			2	2	6	6				
Switch Phase												
Minimum Initial (s)	5.0				15.0	15.0	7.0	7.0				
Minimum Split (s)	9.0				19.8	19.8	11.9	11.9				
Total Split (s)	14.0				44.0	44.0	22.0	22.0				
Total Split (%)	15.6%				48.9%	48.9%	24.4%	24.4%				
Maximum Green (s)	10.0				39.2	39.2	17.1	17.1				
Yellow Time (s)	3.0				3.8	3.8	3.0	3.0				
All-Red Time (s)	1.0				1.0	1.0	1.9	1.9				
Lost Time Adjust (s)	0.0				0.0	0.0		0.0				
Total Lost Time (s)	4.0				4.8	4.8		4.9				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	2.0				3.0	3.0	3.0	3.0				

3: Taylor Place/Main Street & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	23.0
Total Split (s)	10.0
Total Split (%)	11%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None			C-Min		C-Min	None	None				
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	58.3	63.1			35.8	35.8		8.0				
Actuated g/C Ratio	0.65	0.70			0.40	0.40		0.09				
v/c Ratio	0.09	0.58			0.41	0.12		0.33				
Control Delay	16.0	23.6			24.3	2.0		30.1				
Queue Delay	0.0	21.8			0.8	0.0		0.0				
Total Delay	16.0	45.3			25.1	2.0		30.1				
LOS	B	D			C	A		C				
Approach Delay		43.1			22.3			30.1				
Approach LOS		D			C			C				
Queue Length 50th (ft)	23	370			154	0		17				
Queue Length 95th (ft)	m43	483			182	13		53				
Internal Link Dist (ft)		161			831			132		586		
Turn Bay Length (ft)	115					80						
Base Capacity (vph)	646	1206			1692	798		339				
Starvation Cap Reductn	0	513			0	0		0				
Spillback Cap Reductn	0	0			800	0		5				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.09	1.01			0.62	0.10		0.17				

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 33.5

Intersection LOS: C

Intersection Capacity Utilization 47.3%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Taylor Place/Main Street & Route 1 (Post Road East)



3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings



















Existing Weekday PM

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	50
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	629	9	41	487	135	31	104	116	244	64	40
Future Volume (vph)	16	629	9	41	487	135	31	104	116	244	64	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	10	11	11	11	12	16	16
Storage Length (ft)	0		185	0		200	0		0	75		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998				0.850		0.938			0.942	
Flt Protected		0.999			0.996			0.994		0.950		
Satd. Flow (prot)	0	3374	0	0	3410	1463	0	1641	0	1719	2001	0
Flt Permitted		0.944			0.833			0.949		0.351		
Satd. Flow (perm)	0	3188	0	0	2852	1463	0	1567	0	635	2001	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1										31
Link Speed (mph)		30			30			30				30
Link Distance (ft)		911			785			648				491
Travel Time (s)		20.7			17.8			14.7				11.2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	3%	9%	1%	2%	3%	2%	1%	8%	5%	1%	2%
Adj. Flow (vph)	17	669	10	44	518	144	33	111	123	260	68	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	696	0	0	562	144	0	267	0	260	111	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.09	1.04	1.04	1.04	1.00	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA		Perm	NA	Prot	Perm	NA		D.P+P	NA	
Protected Phases	1	1 2			2	2		5		4	4 5	
Permitted Phases	2			2			5			5		
Detector Phase	1	1		2	2	2	5	5		4	4	
Switch Phase												
Minimum Initial (s)	5.0			15.0	15.0	15.0	7.0	7.0		5.0		
Minimum Split (s)	9.0			20.7	20.7	20.7	12.1	12.1		9.0		
Total Split (s)	9.0			36.0	36.0	36.0	30.0	30.0		15.0		
Total Split (%)	7.9%			31.6%	31.6%	31.6%	26.3%	26.3%		13.2%		
Maximum Green (s)	5.0			30.3	30.3	30.3	24.9	24.9		11.0		
Yellow Time (s)	3.0			3.6	3.6	3.6	3.0	3.0		3.0		
All-Red Time (s)	1.0			2.1	2.1	2.1	2.1	2.1		1.0		
Lost Time Adjust (s)					0.0	0.0		0.0		0.0		
Total Lost Time (s)					5.7	5.7		5.1		4.0		
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0	3.0		3.0		

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)
 Lanes, Volumes, Timings













Existing Weekday PM

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday PM

														
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Recall Mode	Min		C-Max			C-Max	None		None		None			
Walk Time (s)														
Flash Dont Walk (s)														
Pedestrian Calls (#/hr)														
Act Effct Green (s)	52.1			36.0			36.0			23.6		41.1		45.1
Actuated g/C Ratio	0.46			0.32			0.32			0.21		0.36		0.40
v/c Ratio	0.47			0.62			0.31			0.82		0.68		0.14
Control Delay	22.7			38.7			34.5			63.9		36.0		15.7
Queue Delay	0.0			0.0			0.0			0.0		0.0		0.0
Total Delay	22.7			38.7			34.5			63.9		36.0		15.7
LOS	C			D			C			E		D		B
Approach Delay	22.7			37.8						63.9				29.9
Approach LOS	C			D						E				C
Queue Length 50th (ft)	165			198			86			185		125		34
Queue Length 95th (ft)	276			265			147			#313		#212		79
Internal Link Dist (ft)	831			705						568				411
Turn Bay Length (ft)							200					75		
Base Capacity (vph)	1482			901			462			353		384		809
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	0.47			0.62			0.31			0.76		0.68		0.14

Intersection Summary

Area Type: Other
 Cycle Length: 114
 Actuated Cycle Length: 114
 Offset: 45 (39%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 34.6 Intersection LOS: C
 Intersection Capacity Utilization 76.3% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)



4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	2
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Myrtle Avenue & Church Lane
Lanes, Volumes, Timings

Existing Weekday PM



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	31	107	43	219	224	13
Future Volume (vph)	31	107	43	219	224	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	15	15	15	15
Storage Length (ft)	75	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.850			0.993	
Fl _t Protected	0.950			0.992		
Satd. Flow (prot)	1986	1777	0	2030	1997	0
Fl _t Permitted	0.950			0.992		
Satd. Flow (perm)	1986	1777	0	2030	1997	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	381			491	244	
Travel Time (s)	8.7			11.2	5.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	8%	1%	4%	3%
Adj. Flow (vph)	34	119	48	243	249	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	119	0	291	263	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	28			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.88	0.88	0.88	0.88
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.8%
ICU Level of Service	A
Analysis Period (min)	15

5: Myrtle Avenue & Church Lane
 HCM 6th TWSC

Existing Weekday PM

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	31	107	43	219	224	13
Future Vol, veh/h	31	107	43	219	224	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	8	1	4	3
Mvmt Flow	34	119	48	243	249	14

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	595	256	263	0	-	0
Stage 1	256	-	-	-	-	-
Stage 2	339	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.18	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.272	-	-	-
Pot Cap-1 Maneuver	465	780	1267	-	-	-
Stage 1	784	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	445	780	1267	-	-	-
Mov Cap-2 Maneuver	445	-	-	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	719	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1267	-	445	780	-	-
HCM Lane V/C Ratio	0.038	-	0.077	0.152	-	-
HCM Control Delay (s)	8	0	13.8	10.4	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.5	-	-

2022 Existing Saturday Midday

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Volume (vph)	53	41	25	4	38	26	79	116	45	136	78	144
Future Volume (vph)	53	41	25	4	38	26	79	116	45	136	78	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	13	11	11	11	12	12	10
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.972			0.948			0.974				0.850
Fl _t Protected		0.978			0.997			0.984			0.969	
Satd. Flow (prot)	0	2047	0	0	1856	0	0	1573	0	0	1829	1507
Fl _t Permitted		0.820			0.981			0.821			0.710	
Satd. Flow (perm)	0	1716	0	0	1826	0	0	1313	0	0	1340	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			29			19				162
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1014			395			350				669
Travel Time (s)		23.0			9.0			8.0				15.2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	2%	1%	0%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	60	46	28	4	43	29	89	130	51	153	88	162
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	134	0	0	76	0	0	270	0	0	241	162
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	0.96	1.04	1.19	1.04	1.00	1.00	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	Prot
Protected Phases		4			8			6		5	2.5	2.5
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6	6		5	2.5	2.5
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		5.0		
Minimum Split (s)	12.3	12.3		12.3	12.3		20.3	20.3		9.3		
Total Split (s)	30.3	30.3		30.3	30.3		30.3	30.3		9.3		
Total Split (%)	43.3%	43.3%		43.3%	43.3%		43.3%	43.3%		13.3%		
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		5.0		
Yellow Time (s)	3.1	3.1		3.1	3.1		3.3	3.3		3.3		
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.3			5.3			5.3				
Lead/Lag												
Lead-Lag Optimize?												

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	20.3
Total Split (s)	30.3
Total Split (%)	43%
Maximum Green (s)	25.0
Yellow Time (s)	3.3
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Recall Mode	None	None		None	None		Min	Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		13.0	13.0				
Pedestrian Calls (#/hr)	40	40		40	40		40	40				
Act Effct Green (s)		12.1			12.1			21.4			25.6	32.3
Actuated g/C Ratio		0.24			0.24			0.42			0.50	0.63
v/c Ratio		0.32			0.17			0.48			0.34	0.16
Control Delay		15.6			11.2			17.0			10.4	2.3
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		15.6			11.2			17.0			10.4	2.3
LOS		B			B			B			B	A
Approach Delay		15.6			11.2			17.0			7.1	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		24			10			45			23	0
Queue Length 95th (ft)		69			38			145			89	24
Internal Link Dist (ft)		934			315			270			589	
Turn Bay Length (ft)												100
Base Capacity (vph)		879			938			703			856	1158
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.15			0.08			0.38			0.28	0.14

Intersection Summary

Area Type: Other

Cycle Length: 69.9

Actuated Cycle Length: 51.4

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 11.8

Intersection LOS: B

Intersection Capacity Utilization 44.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Main Street & Parker Harding Plaza/Avery Place



1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings





















Existing Saturday Mid-day

Lane Group	Ø2
Vehicle Extension (s)	2.0
Recall Mode	Min
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	40
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Saturday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	467	78	16	460	44	107	7	6	75	39	168
Future Volume (vph)	113	467	78	16	460	44	107	7	6	75	39	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	13	10	10	10	12	12	12	11	11	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.987			0.993				0.850
Flt Protected	0.950				0.998			0.958			0.968	
Satd. Flow (prot)	1728	1882	0	0	3259	0	0	1807	0	0	1766	1546
Flt Permitted	0.384				0.934			0.655			0.788	
Satd. Flow (perm)	698	1882	0	0	3050	0	0	1236	0	0	1438	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			14			3				185
Link Speed (mph)		30			30			30				30
Link Distance (ft)		657			241			300				206
Travel Time (s)		14.9			5.5			6.8				4.7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	2%	2%	2%	2%	0%	0%	0%	0%	1%	0%	1%
Adj. Flow (vph)	124	513	86	18	505	48	118	8	7	82	43	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	599	0	0	571	0	0	133	0	0	125	185
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	0.96	0.96	1.09	1.09	1.09	1.00	1.00	1.00	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	custom	NA		custom	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	1 2		3	2 3			4			4	
Permitted Phases	2			2			4			4		4
Detector Phase	1	1 2		3	2 3		4	4		4	4	4
Switch Phase												
Minimum Initial (s)	5.0			5.0			8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0			11.0			13.4	13.4		13.4	13.4	13.4
Total Split (s)	14.0			11.0			24.0	24.0		24.0	24.0	24.0
Total Split (%)	15.6%			12.2%			26.7%	26.7%		26.7%	26.7%	26.7%
Maximum Green (s)	10.0			5.0			18.6	18.6		18.6	18.6	18.6
Yellow Time (s)	3.0			3.8			3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.0			2.2			2.1	2.1		2.1	2.1	2.1
Lost Time Adjust (s)	0.0							0.0			0.0	0.0
Total Lost Time (s)	4.0							5.4			5.4	5.4
Lead/Lag	Lead			Lead			Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	1.0			1.0			4.0	4.0		4.0	4.0	4.0
Recall Mode	None			None			None	None		None	None	None
Walk Time (s)							7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)							8.0	8.0		8.0	8.0	8.0

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	13.0
Minimum Split (s)	17.8
Total Split (s)	41.0
Total Split (%)	46%
Maximum Green (s)	36.2
Yellow Time (s)	3.8
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	C-Max
Walk Time (s)	
Flash Dont Walk (s)	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
Lanes, Volumes, Timings

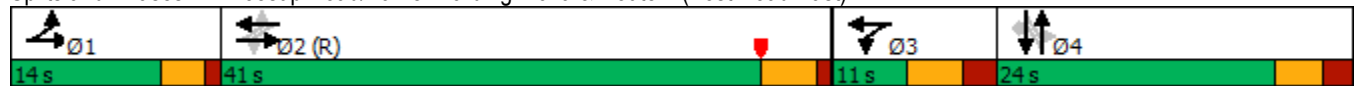
Existing Saturday Mid-day

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Pedestrian Calls (#/hr)							41	41		41	41	41
Act Effct Green (s)	50.7	54.7			44.0			14.9			14.9	14.9
Actuated g/C Ratio	0.56	0.61			0.49			0.17			0.17	0.17
v/c Ratio	0.23	0.52			0.38			0.64			0.53	0.45
Control Delay	9.6	12.6			27.4			48.0			41.6	8.6
Queue Delay	0.0	55.4			1.5			0.0			0.0	0.0
Total Delay	9.6	68.1			29.0			48.0			41.6	8.6
LOS	A	E			C			D			D	A
Approach Delay		58.0			29.0			48.0			21.9	
Approach LOS		E			C			D			C	
Queue Length 50th (ft)	28	177			182			69			65	0
Queue Length 95th (ft)	57	292			235			125			116	53
Internal Link Dist (ft)		577			161			220			126	
Turn Bay Length (ft)												
Base Capacity (vph)	530	1149			1513			257			297	466
Starvation Cap Reductn	0	0			721			0			0	0
Spillback Cap Reductn	0	713			0			1			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.23	1.37			0.72			0.52			0.42	0.40

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 30 (33%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 41.3
 Intersection LOS: D
 Intersection Capacity Utilization 69.1%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)



2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings


















Existing Saturday Mid-day

Lane Group	Ø2
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Saturday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	490	0	0	526	85	16	32	23	0	0	0
Future Volume (vph)	65	490	0	0	526	85	16	32	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	11	10	11	11	11	12	12	12
Storage Length (ft)	115		0	0		80	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.850		0.956				
Fl _t Protected	0.950							0.989				
Satd. Flow (prot)	1668	1756	0	0	3421	1507	0	1699	0	0	0	0
Fl _t Permitted	0.358							0.989				
Satd. Flow (perm)	629	1756	0	0	3421	1507	0	1699	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						120		24				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		241			911			212				666
Travel Time (s)		5.5			20.7			4.8				15.1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	0%	0%	2%	0%	4%	0%	4%	0%	0%	0%
Adj. Flow (vph)	70	527	0	0	566	91	17	34	25	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	527	0	0	566	91	0	76	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.04	1.09	1.04	1.04	1.04	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA			NA	Perm	Split	NA				
Protected Phases	1	1 2			2		6	6				
Permitted Phases	2					2						
Detector Phase	1	1			2	2	6	6				
Switch Phase												
Minimum Initial (s)	5.0				15.0	15.0	7.0	7.0				
Minimum Split (s)	9.0				19.8	19.8	11.9	11.9				
Total Split (s)	14.0				44.0	44.0	22.0	22.0				
Total Split (%)	15.6%				48.9%	48.9%	24.4%	24.4%				
Maximum Green (s)	10.0				39.2	39.2	17.1	17.1				
Yellow Time (s)	3.0				3.8	3.8	3.0	3.0				
All-Red Time (s)	1.0				1.0	1.0	1.9	1.9				
Lost Time Adjust (s)	0.0				0.0	0.0		0.0				
Total Lost Time (s)	4.0				4.8	4.8		4.9				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	2.0				3.0	3.0	3.0	3.0				

3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	23.0
Total Split (s)	10.0
Total Split (%)	11%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None			C-Min		C-Min	None	None				
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	52.9	57.7			35.8	35.8		8.8				
Actuated g/C Ratio	0.59	0.64			0.40	0.40		0.10				
v/c Ratio	0.13	0.47			0.42	0.14		0.40				
Control Delay	19.1	24.1			25.3	2.8		33.7				
Queue Delay	0.0	5.2			1.0	0.0		0.0				
Total Delay	19.1	29.3			26.3	2.8		33.8				
LOS	B	C			C	A		C				
Approach Delay		28.1			23.1			33.8				
Approach LOS		C			C			C				
Queue Length 50th (ft)	29	278			153	0		28				
Queue Length 95th (ft)	m56	310			185	20		68				
Internal Link Dist (ft)		161			831			132			586	
Turn Bay Length (ft)	115					80						
Base Capacity (vph)	573	1126			1764	835		342				
Starvation Cap Reductn	0	523			0	0		0				
Spillback Cap Reductn	0	0			894	0		5				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.12	0.87			0.65	0.11		0.23				

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 26.0

Intersection LOS: C

Intersection Capacity Utilization 39.0%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Taylor Place/Main Street & Route 1 (Post Road East)



3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings



















Existing Saturday Mid-day

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	120
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Saturday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	488	9	53	543	236	41	61	102	223	61	63
Future Volume (vph)	19	488	9	53	543	236	41	61	102	223	61	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	10	11	11	11	12	16	16
Storage Length (ft)	0		185	0		200	0		0	75		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.932			0.924	
Flt Protected		0.998			0.996			0.990		0.950		
Satd. Flow (prot)	0	3406	0	0	3438	1492	0	1671	0	1787	1980	0
Flt Permitted		0.931			0.840			0.905		0.412		
Satd. Flow (perm)	0	3177	0	0	2900	1492	0	1528	0	775	1980	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2										49
Link Speed (mph)		30			30			30				30
Link Distance (ft)		911			785			648				491
Travel Time (s)		20.7			17.8			14.7				11.2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	3%	2%	1%	1%	2%	0%	2%	1%	1%	0%
Adj. Flow (vph)	20	519	10	56	578	251	44	65	109	237	65	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	549	0	0	634	251	0	218	0	237	132	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.09	1.04	1.04	1.04	1.00	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA		Perm	NA	Prot	Perm	NA		D.P+P	NA	
Protected Phases	1	1 2			2	2		5		4	4 5	
Permitted Phases	2			2			5			5		
Detector Phase	1	1		2	2	2	5	5		4	4	
Switch Phase												
Minimum Initial (s)	5.0			15.0	15.0	15.0	7.0	7.0		5.0		
Minimum Split (s)	9.0			20.7	20.7	20.7	12.1	12.1		9.0		
Total Split (s)	9.0			39.0	39.0	39.0	30.0	30.0		12.0		
Total Split (%)	7.9%			34.2%	34.2%	34.2%	26.3%	26.3%		10.5%		
Maximum Green (s)	5.0			33.3	33.3	33.3	24.9	24.9		8.0		
Yellow Time (s)	3.0			3.6	3.6	3.6	3.0	3.0		3.0		
All-Red Time (s)	1.0			2.1	2.1	2.1	2.1	2.1		1.0		
Lost Time Adjust (s)					0.0	0.0		0.0		0.0		
Total Lost Time (s)					5.7	5.7		5.1		4.0		
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0	3.0		3.0		

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

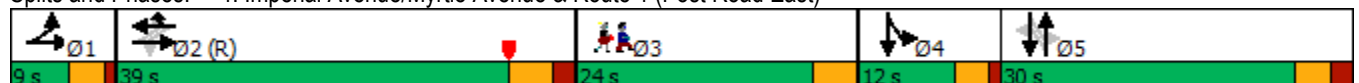
Existing Saturday Mid-day

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Recall Mode	Min		C-Max			C-Max	None		None	None				
Walk Time (s)														
Flash Dont Walk (s)														
Pedestrian Calls (#/hr)														
Act Effct Green (s)	56.9			42.8			42.8			20.7		36.3		40.3
Actuated g/C Ratio	0.50			0.38			0.38			0.18		0.32	0.35	
v/c Ratio	0.34			0.58			0.45			0.79		0.63	0.18	
Control Delay	18.1			33.3			32.8			64.1		37.4	15.7	
Queue Delay	0.0			0.0			0.0			0.0		0.0	0.0	
Total Delay	18.1			33.3			32.8			64.1		37.4	15.7	
LOS	B			C			C			E		D	B	
Approach Delay	18.1			33.2						64.1			29.6	
Approach LOS	B			C						E			C	
Queue Length 50th (ft)	110			198			141			153		121	38	
Queue Length 95th (ft)	201			291			243			233		#240	88	
Internal Link Dist (ft)	831			705						568			411	
Turn Bay Length (ft)							200					75		
Base Capacity (vph)	1612			1089			560			333		375	731	
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	0.34			0.58			0.45			0.65		0.63	0.18	

Intersection Summary

Area Type: Other
 Cycle Length: 114
 Actuated Cycle Length: 114
 Offset: 45 (39%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 31.8 Intersection LOS: C
 Intersection Capacity Utilization 70.6% 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.

Splits and Phases: 4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)



4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	11
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Myrtle Avenue & Church Lane
Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	34	127	99	215	176	35
Future Volume (vph)	34	127	99	215	176	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	15	15	15	15
Storage Length (ft)	75	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.850			0.977	
Fl _t Protected	0.950			0.984		
Satd. Flow (prot)	2025	1830	0	2043	2022	0
Fl _t Permitted	0.950			0.984		
Satd. Flow (perm)	2025	1830	0	2043	2022	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	381			491	244	
Travel Time (s)	8.7			11.2	5.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	1%	0%	0%	1%	1%	1%
Adj. Flow (vph)	40	148	115	250	205	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	148	0	365	246	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	28			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.88	0.88	0.88	0.88
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	41.5%			ICU Level of Service A		
Analysis Period (min)	15					

5: Myrtle Avenue & Church Lane
 HCM 6th TWSC

Existing Saturday Mid-day

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	127	99	215	176	35
Future Vol, veh/h	34	127	99	215	176	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	0	0	1	1	1
Mvmt Flow	40	148	115	250	205	41

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	706	226	246	0	0
Stage 1	226	-	-	-	-
Stage 2	480	-	-	-	-
Critical Hdwy	6.41	6.2	4.1	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.2	-	-
Pot Cap-1 Maneuver	404	818	1332	-	-
Stage 1	814	-	-	-	-
Stage 2	624	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	364	818	1332	-	-
Mov Cap-2 Maneuver	364	-	-	-	-
Stage 1	733	-	-	-	-
Stage 2	624	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1332	-	364	818	-	-
HCM Lane V/C Ratio	0.086	-	0.109	0.181	-	-
HCM Control Delay (s)	8	0	16.1	10.4	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	0.7	-	-

Appendix C

2023 Existing Capacity Analysis

2023 Existing Weekday Midday

1: Main Street & Parker Harding Plaza/Avery Place

Lanes, Volumes, Timings

Existing Weekday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Volume (vph)	65	42	24	13	43	22	84	122	42	220	81	160
Future Volume (vph)	65	42	24	13	43	22	84	122	42	220	81	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	13	11	11	11	12	12	10
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.975			0.961			0.977				0.850
Fl _t Protected		0.976			0.992			0.983			0.965	
Satd. Flow (prot)	0	1816	0	0	1866	0	0	1572	0	0	1815	1478
Fl _t Permitted		0.796			0.929			0.775			0.636	
Satd. Flow (perm)	0	1481	0	0	1748	0	0	1239	0	0	1196	1478
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			26			16				186
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1014			395			350				669
Travel Time (s)		23.0			9.0			8.0				15.2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	40%	0%	0%	0%	1%	0%	1%	3%	1%	1%	2%
Parking (#/hr)								0				
Adj. Flow (vph)	76	49	28	15	50	26	98	142	49	256	94	186
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	153	0	0	91	0	0	289	0	0	350	186
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	0.96	1.04	1.19	1.04	1.00	1.00	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	Prot
Protected Phases		4			8			6		5	2.5	2.5
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6	6		5	2.5	2.5
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		5.0		
Minimum Split (s)	12.3	12.3		12.3	12.3		20.3	20.3		9.3		
Total Split (s)	30.3	30.3		30.3	30.3		30.3	30.3		9.3		
Total Split (%)	43.3%	43.3%		43.3%	43.3%		43.3%	43.3%		13.3%		
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		5.0		
Yellow Time (s)	3.1	3.1		3.1	3.1		3.3	3.3		3.3		
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.3			5.3			5.3				
Lead/Lag												
Lead-Lag Optimize?												

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	20.3
Total Split (s)	30.3
Total Split (%)	43%
Maximum Green (s)	25.0
Yellow Time (s)	3.3
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Recall Mode	None	None		None	None		Min	Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		13.0	13.0				
Pedestrian Calls (#/hr)	40	40		40	40		40	40				
Act Effct Green (s)		12.4			12.4			21.7			25.9	32.7
Actuated g/C Ratio		0.24			0.24			0.42			0.50	0.63
v/c Ratio		0.42			0.21			0.55			0.54	0.19
Control Delay		18.1			12.9			18.9			14.0	2.2
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		18.1			12.9			18.9			14.0	2.2
LOS		B			B			B			B	A
Approach Delay		18.1			12.9			18.9			9.9	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		30			14			54			39	0
Queue Length 95th (ft)		78			45			154			126	23
Internal Link Dist (ft)		934			315			270			589	
Turn Bay Length (ft)												100
Base Capacity (vph)		749			887			655			770	1132
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.20			0.10			0.44			0.45	0.16

Intersection Summary

Area Type: Other

Cycle Length: 69.9

Actuated Cycle Length: 52

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 13.8

Intersection LOS: B

Intersection Capacity Utilization 55.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Main Street & Parker Harding Plaza/Avery Place



1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings



















Existing Weekday Mid-day

Lane Group	Ø2
Vehicle Extension (s)	2.0
Recall Mode	Min
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	40
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	449	140	24	533	29	125	18	10	46	52	157
Future Volume (vph)	61	449	140	24	533	29	125	18	10	46	52	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	13	10	10	10	12	12	12	11	11	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.992			0.991				0.850
Flt Protected	0.950				0.998			0.961			0.977	
Satd. Flow (prot)	1711	1820	0	0	3209	0	0	1764	0	0	1750	1531
Flt Permitted	0.342				0.920			0.694			0.828	
Satd. Flow (perm)	616	1820	0	0	2958	0	0	1274	0	0	1483	1531
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			8			4				171
Link Speed (mph)		30			30			30				30
Link Distance (ft)		657			241			300				206
Travel Time (s)		14.9			5.5			6.8				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
Heavy Vehicles (%)	2%	4%	4%	4%	4%	3%	2%	8%	0%	2%	3%	2%
Adj. Flow (vph)	66	488	152	26	579	32	136	20	11	50	57	171
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	640	0	0	637	0	0	167	0	0	107	171
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	0.96	0.96	1.09	1.09	1.09	1.00	1.00	1.00	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	custom	NA		custom	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	1 2		3	2 3			4			4	
Permitted Phases	2			2			4			4		4
Detector Phase	1	1 2		3	2 3		4	4		4	4	4
Switch Phase												
Minimum Initial (s)	5.0			5.0			8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0			11.0			13.4	13.4		13.4	13.4	13.4
Total Split (s)	14.0			11.0			24.0	24.0		24.0	24.0	24.0
Total Split (%)	15.6%			12.2%			26.7%	26.7%		26.7%	26.7%	26.7%
Maximum Green (s)	10.0			5.0			18.6	18.6		18.6	18.6	18.6
Yellow Time (s)	3.0			3.8			3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.0			2.2			2.1	2.1		2.1	2.1	2.1
Lost Time Adjust (s)	0.0							0.0			0.0	0.0
Total Lost Time (s)	4.0							5.4			5.4	5.4
Lead/Lag	Lead			Lead			Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	1.0			1.0			4.0	4.0		4.0	4.0	4.0
Recall Mode	None			None			None	None		None	None	None
Walk Time (s)							7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)							8.0	8.0		8.0	8.0	8.0

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	13.0
Minimum Split (s)	17.8
Total Split (s)	41.0
Total Split (%)	46%
Maximum Green (s)	36.2
Yellow Time (s)	3.8
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	C-Max
Walk Time (s)	
Flash Dont Walk (s)	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Pedestrian Calls (#/hr)							27	27		27	27	27
Act Effct Green (s)	49.5	53.5			43.4			16.1			16.1	16.1
Actuated g/C Ratio	0.55	0.59			0.48			0.18			0.18	0.18
v/c Ratio	0.14	0.59			0.44			0.73			0.41	0.41
Control Delay	9.4	14.1			22.5			52.1			36.7	8.3
Queue Delay	0.0	54.9			2.5			0.0			0.0	0.0
Total Delay	9.4	68.9			25.0			52.1			36.7	8.3
LOS	A	E			C			D			D	A
Approach Delay		63.4			25.0			52.1			19.2	
Approach LOS		E			C			D			B	
Queue Length 50th (ft)	15	209			198			86			53	0
Queue Length 95th (ft)	34	323			252			#158			101	51
Internal Link Dist (ft)		577			161			220			126	
Turn Bay Length (ft)												
Base Capacity (vph)	479	1094			1449			266			306	452
Starvation Cap Reductn	0	0			659			0			0	0
Spillback Cap Reductn	0	638			0			1			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.14	1.40			0.81			0.63			0.35	0.38

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 30 (33%), Referenced to phase 2:EBWB, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 41.8

Intersection LOS: D

Intersection Capacity Utilization 73.7%

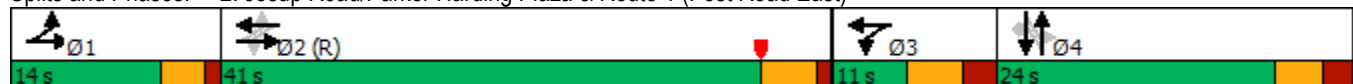
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)



2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings


















Existing Weekday Mid-day

Lane Group	Ø2
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	453	0	0	564	109	29	34	19	0	0	0
Future Volume (vph)	64	453	0	0	564	109	29	34	19	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	11	10	11	11	11	12	12	12
Storage Length (ft)	115		0	0		80	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.850		0.969				
Fl _t Protected	0.950							0.982				
Satd. Flow (prot)	1668	1705	0	0	3388	1463	0	1602	0	0	0	0
Fl _t Permitted	0.364							0.982				
Satd. Flow (perm)	639	1705	0	0	3388	1463	0	1602	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						120		15				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		241			911			212				666
Travel Time (s)		5.5			20.7			4.8				15.1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	4%	0%	0%	3%	3%	23%	0%	4%	0%	0%	0%
Adj. Flow (vph)	68	482	0	0	600	116	31	36	20	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	482	0	0	600	116	0	87	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.04	1.09	1.04	1.04	1.04	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA			NA	Perm	Split	NA				
Protected Phases	1	1 2			2		6	6				
Permitted Phases	2					2						
Detector Phase	1	1			2	2	6	6				
Switch Phase												
Minimum Initial (s)	5.0				15.0	15.0	7.0	7.0				
Minimum Split (s)	9.0				19.8	19.8	11.9	11.9				
Total Split (s)	14.0				44.0	44.0	22.0	22.0				
Total Split (%)	15.6%				48.9%	48.9%	24.4%	24.4%				
Maximum Green (s)	10.0				39.2	39.2	17.1	17.1				
Yellow Time (s)	3.0				3.8	3.8	3.0	3.0				
All-Red Time (s)	1.0				1.0	1.0	1.9	1.9				
Lost Time Adjust (s)	0.0				0.0	0.0		0.0				
Total Lost Time (s)	4.0				4.8	4.8		4.9				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	2.0				3.0	3.0	3.0	3.0				

3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	23.0
Total Split (s)	10.0
Total Split (%)	11%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None			C-Min		C-Min	None	None				
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	57.0	61.8			42.9	42.9		9.8				
Actuated g/C Ratio	0.63	0.69			0.48	0.48		0.11				
v/c Ratio	0.12	0.41			0.37	0.15		0.46				
Control Delay	17.9	21.2			21.2	4.6		38.7				
Queue Delay	0.0	3.0			0.7	0.0		0.0				
Total Delay	17.9	24.2			21.8	4.6		38.7				
LOS	B	C			C	A		D				
Approach Delay		23.4			19.0			38.7				
Approach LOS		C			B			D				
Queue Length 50th (ft)	31	263			165	0		39				
Queue Length 95th (ft)	m49	288			191	33		82				
Internal Link Dist (ft)		161			831			132			586	
Turn Bay Length (ft)	115					80						
Base Capacity (vph)	573	1155			1897	872		316				
Starvation Cap Reductn	0	548			0	0		0				
Spillback Cap Reductn	0	0			889	0		4				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.12	0.79			0.60	0.13		0.28				

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 22.1

Intersection LOS: C

Intersection Capacity Utilization 37.1%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Taylor Place/Main Street & Route 1 (Post Road East)



3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings



















Existing Weekday Mid-day

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	56
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	419	17	103	620	230	44	88	139	259	103	65
Future Volume (vph)	27	419	17	103	620	230	44	88	139	259	103	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	10	11	11	11	12	16	16
Storage Length (ft)	0		185	0		200	0		0	75		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.995				0.850		0.931			0.942	
Fl _t Protected		0.997			0.993			0.992		0.950		
Satd. Flow (prot)	0	3361	0	0	3369	1478	0	1622	0	1787	1981	0
Fl _t Permitted		0.853			0.781			0.916		0.377		
Satd. Flow (perm)	0	2876	0	0	2650	1478	0	1498	0	709	1981	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		4										30
Link Speed (mph)		30			30			30				30
Link Distance (ft)		911			785			648				491
Travel Time (s)		20.7			17.8			14.7				11.2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	3%	2%	4%	1%	7%	1%	2%	3%
Adj. Flow (vph)	29	446	18	110	660	245	47	94	148	276	110	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	493	0	0	770	245	0	289	0	276	179	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.09	1.04	1.04	1.04	1.00	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA		Perm	NA	Prot	Perm	NA		D.P+P	NA	
Protected Phases	1	1 2			2	2		5		4	4 5	
Permitted Phases	2			2			5			5		
Detector Phase	1	1		2	2	2	5	5		4	4	
Switch Phase												
Minimum Initial (s)	5.0			15.0	15.0	15.0	7.0	7.0		5.0		
Minimum Split (s)	9.0			20.7	20.7	20.7	12.1	12.1		9.0		
Total Split (s)	9.0			39.0	39.0	39.0	30.0	30.0		12.0		
Total Split (%)	7.9%			34.2%	34.2%	34.2%	26.3%	26.3%		10.5%		
Maximum Green (s)	5.0			33.3	33.3	33.3	24.9	24.9		8.0		
Yellow Time (s)	3.0			3.6	3.6	3.6	3.0	3.0		3.0		
All-Red Time (s)	1.0			2.1	2.1	2.1	2.1	2.1		1.0		
Lost Time Adjust (s)					0.0	0.0		0.0		0.0		
Total Lost Time (s)					5.7	5.7		5.1		4.0		
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0	3.0		3.0		

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)
 Lanes, Volumes, Timings













Existing Weekday Mid-day

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

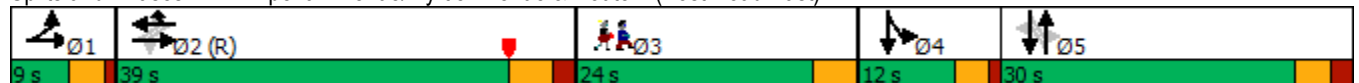
Existing Weekday Mid-day

														
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Recall Mode	Min		C-Max			C-Max	None		None		None			
Walk Time (s)														
Flash Dont Walk (s)														
Pedestrian Calls (#/hr)														
Act Effct Green (s)	47.6			35.4			35.4			26.5		45.6		49.6
Actuated g/C Ratio	0.42			0.31			0.31			0.23		0.40		0.44
v/c Ratio	0.40			0.93			0.53			0.83		0.61		0.20
Control Delay	22.9			58.4			38.5			61.9		31.5		18.0
Queue Delay	0.0			0.0			0.0			0.0		0.0		0.0
Total Delay	22.9			58.4			38.5			61.9		31.5		18.0
LOS	C			E			D			E		C		B
Approach Delay	22.9			53.6						61.9				26.2
Approach LOS	C			D						E				C
Queue Length 50th (ft)	119			296			152			196		120		59
Queue Length 95th (ft)	179			#432			239			#363		#333		136
Internal Link Dist (ft)	831			705						568				411
Turn Bay Length (ft)							200					75		
Base Capacity (vph)	1248			824			459			359		453		878
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	0.40			0.93			0.53			0.81		0.61		0.20

Intersection Summary

Area Type: Other
 Cycle Length: 114
 Actuated Cycle Length: 114
 Offset: 45 (39%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 42.4 Intersection LOS: D
 Intersection Capacity Utilization 78.6% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)



4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday Mid-day

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	6
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Myrtle Avenue & Church Lane Lanes, Volumes, Timings

Existing Weekday Mid-day



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	36	149	97	244	286	35
Future Volume (vph)	36	149	97	244	286	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	15	15	15	15
Storage Length (ft)	75	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.850			0.985	
Fl _t Protected	0.950			0.986		
Satd. Flow (prot)	2025	1812	0	2020	2018	0
Fl _t Permitted	0.950			0.986		
Satd. Flow (perm)	2025	1812	0	2020	2018	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	381			491	244	
Travel Time (s)	8.7			11.2	5.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Adj. Flow (vph)	40	167	109	274	321	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	167	0	383	360	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	28			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.88	0.88	0.88	0.88
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.7%
	ICU Level of Service A
Analysis Period (min)	15

5: Myrtle Avenue & Church Lane
 HCM 6th TWSC

Existing Weekday Mid-day

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	149	97	244	286	35
Future Vol, veh/h	36	149	97	244	286	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	40	167	109	274	321	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	833	341	360	0	-	0
Stage 1	341	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	340	704	1199	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	304	704	1199	-	-	-
Mov Cap-2 Maneuver	304	-	-	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	617	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	2.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1199	-	304	704	-	-
HCM Lane V/C Ratio	0.091	-	0.133	0.238	-	-
HCM Control Delay (s)	8.3	0	18.7	11.7	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.5	0.9	-	-

2023 Existing Weekday Evening

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Volume (vph)	65	26	6	6	32	35	38	125	24	203	62	109
Future Volume (vph)	65	26	6	6	32	35	38	125	24	203	62	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	13	11	11	11	12	12	10
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.992			0.936			0.982				0.850
Fl _t Protected		0.968			0.996			0.990			0.963	
Satd. Flow (prot)	0	2055	0	0	1810	0	0	1571	0	0	1785	1478
Fl _t Permitted		0.748			0.964			0.889			0.689	
Satd. Flow (perm)	0	1588	0	0	1752	0	0	1411	0	0	1277	1478
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			40			12				125
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1014			395			350				669
Travel Time (s)		23.0			9.0			8.0				15.2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	1%	6%	3%	2%	0%	4%	2%	1%	3%	1%	2%
Parking (#/hr)								0				
Adj. Flow (vph)	75	30	7	7	37	40	44	144	28	233	71	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	84	0	0	216	0	0	304	125
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	0.96	1.04	1.19	1.04	1.00	1.00	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	Prot
Protected Phases		4			8			6		5	2.5	2.5
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6	6		5	2.5	2.5
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		5.0		
Minimum Split (s)	12.3	12.3		12.3	12.3		20.3	20.3		9.3		
Total Split (s)	30.3	30.3		30.3	30.3		30.3	30.3		9.3		
Total Split (%)	43.3%	43.3%		43.3%	43.3%		43.3%	43.3%		13.3%		
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		5.0		
Yellow Time (s)	3.1	3.1		3.1	3.1		3.3	3.3		3.3		
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.3			5.3			5.3				
Lead/Lag												
Lead-Lag Optimize?												

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	20.3
Total Split (s)	30.3
Total Split (%)	43%
Maximum Green (s)	25.0
Yellow Time (s)	3.3
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Recall Mode	None	None		None	None		Min	Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		13.0	13.0				
Pedestrian Calls (#/hr)	20	20		20	20		20	20				
Act Effct Green (s)		9.7			9.7			19.8			23.9	30.5
Actuated g/C Ratio		0.21			0.21			0.42			0.51	0.64
v/c Ratio		0.34			0.22			0.36			0.44	0.13
Control Delay		18.1			10.7			13.8			10.2	2.2
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		18.1			10.7			13.8			10.2	2.2
LOS		B			B			B			B	A
Approach Delay		18.1			10.7			13.8			7.9	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		23			9			35			30	0
Queue Length 95th (ft)		61			36			109			111	20
Internal Link Dist (ft)		934			315			270			589	
Turn Bay Length (ft)												100
Base Capacity (vph)		865			970			803			878	1196
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.13			0.09			0.27			0.35	0.10

Intersection Summary

Area Type:	Other
Cycle Length:	69.9
Actuated Cycle Length:	47.3
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.44
Intersection Signal Delay:	11.0
Intersection LOS:	B
Intersection Capacity Utilization:	52.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Main Street & Parker Harding Plaza/Avery Place



1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø2
Vehicle Extension (s)	2.0
Recall Mode	Min
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	20
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	610	72	20	391	20	81	10	5	39	21	139
Future Volume (vph)	57	610	72	20	391	20	81	10	5	39	21	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	13	10	10	10	12	12	12	11	11	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.993			0.993				0.850
Flt Protected	0.950				0.998			0.959			0.969	
Satd. Flow (prot)	1745	1881	0	0	3277	0	0	1783	0	0	1718	1546
Flt Permitted	0.464				0.917			0.715			0.790	
Satd. Flow (perm)	852	1881	0	0	3011	0	0	1330	0	0	1401	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			7			3				143
Link Speed (mph)		30			30			30				30
Link Distance (ft)		657			241			300				206
Travel Time (s)		14.9			5.5			6.8				4.7
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	0%	2%	2%	0%	1%	6%	0%	5%	1%	1%
Adj. Flow (vph)	59	629	74	21	403	21	84	10	5	40	22	143
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	703	0	0	445	0	0	99	0	0	62	143
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	0.96	0.96	1.09	1.09	1.09	1.00	1.00	1.00	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	custom	NA		custom	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	12		3	23			4			4	
Permitted Phases	2			2			4			4		4
Detector Phase	1	12		3	23		4	4		4	4	4
Switch Phase												
Minimum Initial (s)	5.0			5.0			8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0			11.0			13.4	13.4		13.4	13.4	13.4
Total Split (s)	14.0			11.0			24.0	24.0		24.0	24.0	24.0
Total Split (%)	15.6%			12.2%			26.7%	26.7%		26.7%	26.7%	26.7%
Maximum Green (s)	10.0			5.0			18.6	18.6		18.6	18.6	18.6
Yellow Time (s)	3.0			3.8			3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.0			2.2			2.1	2.1		2.1	2.1	2.1
Lost Time Adjust (s)	0.0							0.0			0.0	0.0
Total Lost Time (s)	4.0							5.4			5.4	5.4
Lead/Lag	Lead			Lead			Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	1.0			1.0			4.0	4.0		4.0	4.0	4.0
Recall Mode	None			None			None	None		None	None	None
Walk Time (s)							7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)							8.0	8.0		8.0	8.0	8.0

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	13.0
Minimum Split (s)	17.8
Total Split (s)	41.0
Total Split (%)	46%
Maximum Green (s)	36.2
Yellow Time (s)	3.8
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	C-Max
Walk Time (s)	
Flash Dont Walk (s)	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
Lanes, Volumes, Timings

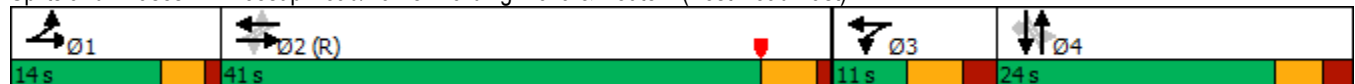
Existing Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Pedestrian Calls (#/hr)							27	27		27	27	27
Act Effct Green (s)	52.6	56.6			43.8			13.0			13.0	13.0
Actuated g/C Ratio	0.58	0.63			0.49			0.14			0.14	0.14
v/c Ratio	0.09	0.59			0.30			0.51			0.31	0.41
Control Delay	8.0	13.2			22.7			42.6			36.9	9.6
Queue Delay	0.0	55.4			0.8			0.0			0.0	0.0
Total Delay	8.0	68.5			23.5			42.6			36.9	9.6
LOS	A	E			C			D			D	A
Approach Delay		63.9			23.5			42.6			17.8	
Approach LOS		E			C			D			B	
Queue Length 50th (ft)	12	209			144			51			32	0
Queue Length 95th (ft)	31	375			194			95			65	47
Internal Link Dist (ft)		577			161			220			126	
Turn Bay Length (ft)												
Base Capacity (vph)	638	1186			1487			277			289	432
Starvation Cap Reductn	0	0			726			0			0	0
Spillback Cap Reductn	0	754			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.09	1.63			0.58			0.36			0.21	0.33

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	30 (33%), Referenced to phase 2:EBWB, Start of Yellow
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	44.3
Intersection LOS:	D
Intersection Capacity Utilization:	67.2%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)



2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings


















Existing Weekday PM

Lane Group	Ø2
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	598	0	0	427	80	5	27	17	0	0	0
Future Volume (vph)	46	598	0	0	427	80	5	27	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	11	10	11	11	11	12	12	12
Storage Length (ft)	115		0	0		80	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.850		0.953				
Fl _t Protected	0.950							0.995				
Satd. Flow (prot)	1636	1722	0	0	3421	1492	0	1714	0	0	0	0
Fl _t Permitted	0.428							0.995				
Satd. Flow (perm)	737	1722	0	0	3421	1492	0	1714	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						120		18				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		241			911			212				666
Travel Time (s)		5.5			20.7			4.8				15.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	0%	0%	2%	1%	17%	0%	0%	0%	0%	0%
Adj. Flow (vph)	50	650	0	0	464	87	5	29	18	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	650	0	0	464	87	0	52	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.04	1.09	1.04	1.04	1.04	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA			NA	Perm	Split	NA				
Protected Phases	1	1 2			2		6	6				
Permitted Phases	2					2						
Detector Phase	1	1			2	2	6	6				
Switch Phase												
Minimum Initial (s)	5.0				15.0	15.0	7.0	7.0				
Minimum Split (s)	9.0				19.8	19.8	11.9	11.9				
Total Split (s)	14.0				44.0	44.0	22.0	22.0				
Total Split (%)	15.6%				48.9%	48.9%	24.4%	24.4%				
Maximum Green (s)	10.0				39.2	39.2	17.1	17.1				
Yellow Time (s)	3.0				3.8	3.8	3.0	3.0				
All-Red Time (s)	1.0				1.0	1.0	1.9	1.9				
Lost Time Adjust (s)	0.0				0.0	0.0		0.0				
Total Lost Time (s)	4.0				4.8	4.8		4.9				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	2.0				3.0	3.0	3.0	3.0				

3: Taylor Place/Main Street & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	23.0
Total Split (s)	10.0
Total Split (%)	11%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0

3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None			C-Min			C-Min		None		None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	60.0	65.6			37.5	37.5		8.0				
Actuated g/C Ratio	0.67	0.73			0.42	0.42		0.09				
v/c Ratio	0.07	0.52			0.33	0.13		0.31				
Control Delay	17.7	24.3			24.3	2.7		32.3				
Queue Delay	0.0	5.8			0.1	0.0		0.0				
Total Delay	17.7	30.2			24.3	2.7		32.3				
LOS	B	C			C	A		C				
Approach Delay		29.3			20.9			32.3				
Approach LOS		C			C			C				
Queue Length 50th (ft)	21	377			132	0		18				
Queue Length 95th (ft)	m43	488			161	19		52				
Internal Link Dist (ft)		161			831			132			586	
Turn Bay Length (ft)	115					80						
Base Capacity (vph)	709	1256			1844	859		340				
Starvation Cap Reductn	0	538			0	0		0				
Spillback Cap Reductn	0	0			324	0		1				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.07	0.91			0.31	0.10		0.15				

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 25.8 Intersection LOS: C
 Intersection Capacity Utilization 44.7% ICU Level of Service A
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Taylor Place/Main Street & Route 1 (Post Road East)



3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings



















Existing Weekday PM

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	50
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Weekday PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	570	11	65	446	165	22	107	119	261	79	50
Future Volume (vph)	14	570	11	65	446	165	22	107	119	261	79	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	10	11	11	11	12	16	16
Storage Length (ft)	0		185	0		200	0		0	75		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.935			0.942	
Flt Protected		0.999			0.994			0.996		0.950		
Satd. Flow (prot)	0	3370	0	0	3405	1463	0	1637	0	1719	2001	0
Flt Permitted		0.946			0.769			0.965		0.337		
Satd. Flow (perm)	0	3191	0	0	2634	1463	0	1587	0	610	2001	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2										31
Link Speed (mph)		30			30			30				30
Link Distance (ft)		911			785			648				491
Travel Time (s)		20.7			17.8			14.7				11.2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	3%	9%	1%	2%	3%	2%	1%	8%	5%	1%	2%
Adj. Flow (vph)	15	606	12	69	474	176	23	114	127	278	84	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	633	0	0	543	176	0	264	0	278	137	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.09	1.04	1.04	1.04	1.00	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA		Perm	NA	Prot	Perm	NA		D.P+P	NA	
Protected Phases	1	1 2			2	2		5		4	4 5	
Permitted Phases	2			2			5			5		
Detector Phase	1	1		2	2	2	5	5		4	4	
Switch Phase												
Minimum Initial (s)	5.0			15.0	15.0	15.0	7.0	7.0		5.0		
Minimum Split (s)	9.0			20.7	20.7	20.7	12.1	12.1		9.0		
Total Split (s)	9.0			36.0	36.0	36.0	30.0	30.0		15.0		
Total Split (%)	7.9%			31.6%	31.6%	31.6%	26.3%	26.3%		13.2%		
Maximum Green (s)	5.0			30.3	30.3	30.3	24.9	24.9		11.0		
Yellow Time (s)	3.0			3.6	3.6	3.6	3.0	3.0		3.0		
All-Red Time (s)	1.0			2.1	2.1	2.1	2.1	2.1		1.0		
Lost Time Adjust (s)					0.0	0.0		0.0		0.0		
Total Lost Time (s)					5.7	5.7		5.1		4.0		
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0	3.0		3.0		

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)
 Lanes, Volumes, Timings













Existing Weekday PM

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

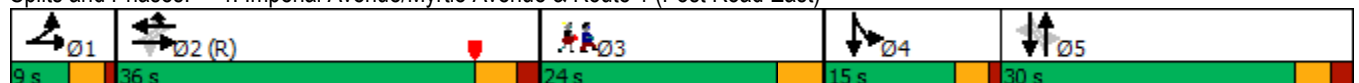
Existing Weekday PM

														
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Recall Mode	Min		C-Max			C-Max	None		None		None			
Walk Time (s)														
Flash Dont Walk (s)														
Pedestrian Calls (#/hr)														
Act Effct Green (s)	51.2			35.9			35.9			23.2		42.0		46.0
Actuated g/C Ratio	0.45			0.31			0.31			0.20		0.37		0.40
v/c Ratio	0.44			0.66			0.38			0.82		0.70		0.17
Control Delay	22.5			40.0			35.9			63.6		36.6		16.9
Queue Delay	0.0			0.0			0.0			0.0		0.0		0.0
Total Delay	22.5			40.0			35.9			63.6		36.6		16.9
LOS	C			D			D			E		D		B
Approach Delay	22.5			39.0						63.6				30.1
Approach LOS	C			D						E				C
Queue Length 50th (ft)	150			194			108			183		132		44
Queue Length 95th (ft)	247			261			178			#305		#252		98
Internal Link Dist (ft)	831			705						568				411
Turn Bay Length (ft)							200					75		
Base Capacity (vph)	1454			828			460			355		397		826
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	0.44			0.66			0.38			0.74		0.70		0.17

Intersection Summary

Area Type: Other
 Cycle Length: 114
 Actuated Cycle Length: 114
 Offset: 45 (39%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 35.3 Intersection LOS: D
 Intersection Capacity Utilization 75.0% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)



4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Weekday PM

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	2
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Myrtle Avenue & Church Lane
Lanes, Volumes, Timings

Existing Weekday PM



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	20	141	57	144	156	21
Future Volume (vph)	20	141	57	144	156	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	15	15	15	15
Storage Length (ft)	75	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.984	
Flt Protected	0.950			0.986		
Satd. Flow (prot)	1986	1777	0	2001	1980	0
Flt Permitted	0.950			0.986		
Satd. Flow (perm)	1986	1777	0	2001	1980	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	381			491	244	
Travel Time (s)	8.7			11.2	5.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	8%	1%	4%	3%
Adj. Flow (vph)	22	157	63	160	173	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	157	0	223	196	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	28			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.88	0.88	0.88	0.88
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.5%
ICU Level of Service	A
Analysis Period (min)	15

5: Myrtle Avenue & Church Lane
 HCM 6th TWSC

Existing Weekday PM

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	141	57	144	156	21
Future Vol, veh/h	20	141	57	144	156	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	8	1	4	3
Mvmt Flow	22	157	63	160	173	23

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	471	185	196	0	0
Stage 1	185	-	-	-	-
Stage 2	286	-	-	-	-
Critical Hdwy	6.43	6.23	4.18	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.272	-	-
Pot Cap-1 Maneuver	549	855	1342	-	-
Stage 1	844	-	-	-	-
Stage 2	760	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	520	855	1342	-	-
Mov Cap-2 Maneuver	520	-	-	-	-
Stage 1	800	-	-	-	-
Stage 2	760	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	2.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1342	-	520	855	-	-
HCM Lane V/C Ratio	0.047	-	0.043	0.183	-	-
HCM Control Delay (s)	7.8	0	12.2	10.2	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.7	-	-

2023 Existing Saturday Midday

1: Main Street & Parker Harding Plaza/Avery Place

Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Volume (vph)	70	57	25	19	51	19	108	111	71	162	102	169
Future Volume (vph)	70	57	25	19	51	19	108	111	71	162	102	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	13	11	11	11	12	12	10
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.978			0.971			0.967				0.850
Fl _t Protected		0.977			0.990			0.982			0.970	
Satd. Flow (prot)	0	2058	0	0	1887	0	0	1556	0	0	1832	1507
Fl _t Permitted		0.804			0.918			0.768			0.660	
Satd. Flow (perm)	0	1693	0	0	1750	0	0	1217	0	0	1246	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			21			26				190
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1014			395			350				669
Travel Time (s)		23.0			9.0			8.0				15.2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	2%	1%	0%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	79	64	28	21	57	21	121	125	80	182	115	190
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	0	0	99	0	0	326	0	0	297	190
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	0.96	1.04	1.19	1.04	1.00	1.00	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	Prot
Protected Phases		4			8			6		5	2.5	2.5
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6	6		5	2.5	2.5
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		5.0		
Minimum Split (s)	12.3	12.3		12.3	12.3		20.3	20.3		9.3		
Total Split (s)	30.3	30.3		30.3	30.3		30.3	30.3		9.3		
Total Split (%)	43.3%	43.3%		43.3%	43.3%		43.3%	43.3%		13.3%		
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		5.0		
Yellow Time (s)	3.1	3.1		3.1	3.1		3.3	3.3		3.3		
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.3			5.3			5.3				
Lead/Lag												
Lead-Lag Optimize?												

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	20.3
Total Split (s)	30.3
Total Split (%)	43%
Maximum Green (s)	25.0
Yellow Time (s)	3.3
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	

1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Recall Mode	None	None		None	None		Min	Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		13.0	13.0				
Pedestrian Calls (#/hr)	40	40		40	40		40	40				
Act Effct Green (s)		12.5			12.5			22.7			26.8	33.6
Actuated g/C Ratio		0.24			0.24			0.43			0.51	0.63
v/c Ratio		0.42			0.23			0.61			0.44	0.19
Control Delay		18.4			14.5			20.3			11.6	2.1
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		18.4			14.5			20.3			11.6	2.1
LOS		B			B			C			B	A
Approach Delay		18.4			14.5			20.3			7.9	
Approach LOS		B			B			C			A	
Queue Length 50th (ft)		36			17			63			33	0
Queue Length 95th (ft)		90			52			#198			110	26
Internal Link Dist (ft)		934			315			270			589	
Turn Bay Length (ft)												100
Base Capacity (vph)		841			872			639			786	1141
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.20			0.11			0.51			0.38	0.17

Intersection Summary

Area Type: Other

Cycle Length: 69.9

Actuated Cycle Length: 53

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 13.9

Intersection LOS: B

Intersection Capacity Utilization 47.7%

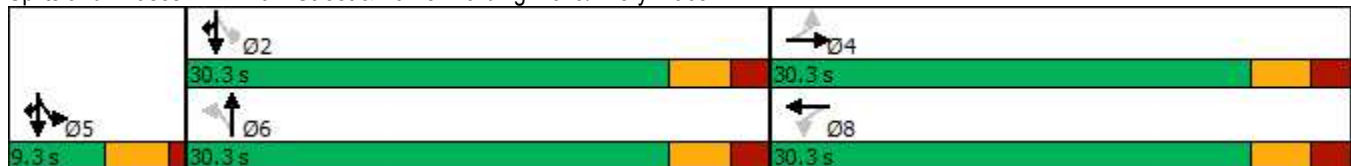
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Parker Harding Plaza/Avery Place



1: Main Street & Parker Harding Plaza/Avery Place Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø2
Vehicle Extension (s)	2.0
Recall Mode	Min
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	40
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	463	105	28	591	41	100	11	8	62	63	170
Future Volume (vph)	92	463	105	28	591	41	100	11	8	62	63	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	13	10	10	10	12	12	12	11	11	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.991			0.991				0.850
Flt Protected	0.950				0.998			0.960			0.976	
Satd. Flow (prot)	1728	1871	0	0	3271	0	0	1808	0	0	1784	1546
Flt Permitted	0.297				0.915			0.633			0.821	
Satd. Flow (perm)	540	1871	0	0	2999	0	0	1192	0	0	1500	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			10			4				187
Link Speed (mph)		30			30			30				30
Link Distance (ft)		657			241			300				206
Travel Time (s)		14.9			5.5			6.8				4.7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	2%	2%	2%	2%	0%	0%	0%	0%	1%	0%	1%
Adj. Flow (vph)	101	509	115	31	649	45	110	12	9	68	69	187
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	624	0	0	725	0	0	131	0	0	137	187
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	0.96	0.96	1.09	1.09	1.09	1.00	1.00	1.00	1.04	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	custom	NA		custom	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	12		3	23			4			4	
Permitted Phases	2			2			4			4		4
Detector Phase	1	12		3	23		4	4		4	4	4
Switch Phase												
Minimum Initial (s)	5.0			5.0			8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0			11.0			13.4	13.4		13.4	13.4	13.4
Total Split (s)	14.0			11.0			24.0	24.0		24.0	24.0	24.0
Total Split (%)	15.6%			12.2%			26.7%	26.7%		26.7%	26.7%	26.7%
Maximum Green (s)	10.0			5.0			18.6	18.6		18.6	18.6	18.6
Yellow Time (s)	3.0			3.8			3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.0			2.2			2.1	2.1		2.1	2.1	2.1
Lost Time Adjust (s)	0.0							0.0			0.0	0.0
Total Lost Time (s)	4.0							5.4			5.4	5.4
Lead/Lag	Lead			Lead			Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	1.0			1.0			4.0	4.0		4.0	4.0	4.0
Recall Mode	None			None			None	None		None	None	None
Walk Time (s)							7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)							8.0	8.0		8.0	8.0	8.0













2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	13.0
Minimum Split (s)	17.8
Total Split (s)	41.0
Total Split (%)	46%
Maximum Green (s)	36.2
Yellow Time (s)	3.8
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	C-Max
Walk Time (s)	
Flash Dont Walk (s)	

2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Saturday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Pedestrian Calls (#/hr)							41	41		41	41	41
Act Effct Green (s)	50.7	54.7			43.9			14.9			14.9	14.9
Actuated g/C Ratio	0.56	0.61			0.49			0.17			0.17	0.17
v/c Ratio	0.22	0.54			0.49			0.66			0.55	0.45
Control Delay	9.6	12.9			27.4			49.0			42.3	8.7
Queue Delay	0.0	23.5			7.0			0.0			0.0	0.0
Total Delay	9.6	36.4			34.3			49.0			42.3	8.7
LOS	A	D			C			D			D	A
Approach Delay		32.7			34.3			49.0			22.9	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	22	187			231			68			72	0
Queue Length 95th (ft)	47	308			289			124			125	53
Internal Link Dist (ft)		577			161			220			126	
Turn Bay Length (ft)												
Base Capacity (vph)	464	1145			1487			249			310	467
Starvation Cap Reductn	0	0			706			0			0	0
Spillback Cap Reductn	0	531			0			1			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.22	1.02			0.93			0.53			0.44	0.40

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 30 (33%), Referenced to phase 2:EBWB, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 32.8

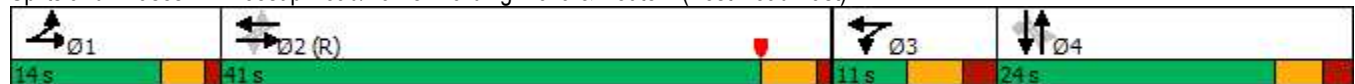
Intersection LOS: C

Intersection Capacity Utilization 74.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East)



2: Jesup Road/Parker Harding Plaza & Route 1 (Post Road East) Lanes, Volumes, Timings


















Existing Saturday Mid-day

Lane Group	Ø2
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Saturday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	460	0	0	638	136	7	20	37	0	0	0
Future Volume (vph)	75	460	0	0	638	136	7	20	37	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	11	10	11	11	11	12	12	12
Storage Length (ft)	115		0	0		80	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.850		0.923				
Fl _t Protected	0.950							0.994				
Satd. Flow (prot)	1668	1756	0	0	3421	1507	0	1640	0	0	0	0
Fl _t Permitted	0.303							0.994				
Satd. Flow (perm)	532	1756	0	0	3421	1507	0	1640	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						120		40				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		241			911			212				666
Travel Time (s)		5.5			20.7			4.8				15.1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	0%	0%	2%	0%	4%	0%	4%	0%	0%	0%
Adj. Flow (vph)	81	495	0	0	686	146	8	22	40	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	495	0	0	686	146	0	70	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.04	1.09	1.04	1.04	1.04	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA			NA	Perm	Split	NA				
Protected Phases	1	1 2			2		6	6				
Permitted Phases	2					2						
Detector Phase	1	1			2	2	6	6				
Switch Phase												
Minimum Initial (s)	5.0				15.0	15.0	7.0	7.0				
Minimum Split (s)	9.0				19.8	19.8	11.9	11.9				
Total Split (s)	14.0				44.0	44.0	22.0	22.0				
Total Split (%)	15.6%				48.9%	48.9%	24.4%	24.4%				
Maximum Green (s)	10.0				39.2	39.2	17.1	17.1				
Yellow Time (s)	3.0				3.8	3.8	3.0	3.0				
All-Red Time (s)	1.0				1.0	1.0	1.9	1.9				
Lost Time Adjust (s)	0.0				0.0	0.0		0.0				
Total Lost Time (s)	4.0				4.8	4.8		4.9				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	2.0				3.0	3.0	3.0	3.0				

3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	23.0
Total Split (s)	10.0
Total Split (%)	11%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0

3: Taylor Place/Main Street & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None			C-Min		C-Min	None	None				
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	55.5	60.3			39.2	39.2		8.2				
Actuated g/C Ratio	0.62	0.67			0.44	0.44		0.09				
v/c Ratio	0.15	0.42			0.46	0.20		0.38				
Control Delay	14.9	18.4			23.1	6.5		26.0				
Queue Delay	0.0	3.5			4.7	0.0		0.0				
Total Delay	14.9	22.0			27.7	6.5		26.1				
LOS	B	C			C	A		C				
Approach Delay		21.0			24.0			26.1				
Approach LOS		C			C			C				
Queue Length 50th (ft)	30	230			184	11		16				
Queue Length 95th (ft)	m51	253			207	47		55				
Internal Link Dist (ft)		161			831			132			586	
Turn Bay Length (ft)	115					80						
Base Capacity (vph)	540	1176			1768	837		344				
Starvation Cap Reductn	0	572			0	0		0				
Spillback Cap Reductn	0	0			992	0		12				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.15	0.82			0.88	0.17		0.21				

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 22.9

Intersection LOS: C

Intersection Capacity Utilization 39.1%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Taylor Place/Main Street & Route 1 (Post Road East)



3: Taylor Place/Main Street & Route 1 (Post Road East) Lanes, Volumes, Timings



















Existing Saturday Mid-day

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	120
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

Existing Saturday Mid-day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	414	16	122	753	214	19	83	110	234	99	92
Future Volume (vph)	38	414	16	122	753	214	19	83	110	234	99	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	10	11	11	11	12	16	16
Storage Length (ft)	0		185	0		200	0		0	75		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.995				0.850		0.930			0.928	
Fl _t Protected		0.996			0.993			0.996		0.950		
Satd. Flow (prot)	0	3395	0	0	3426	1492	0	1681	0	1787	1988	0
Fl _t Permitted		0.771			0.779			0.957		0.356		
Satd. Flow (perm)	0	2628	0	0	2688	1492	0	1615	0	670	1988	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			785			648			491	
Travel Time (s)		20.7			17.8			14.7			11.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	3%	2%	1%	1%	2%	0%	2%	1%	1%	0%
Adj. Flow (vph)	40	440	17	130	801	228	20	88	117	249	105	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	497	0	0	931	228	0	225	0	249	203	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.09	1.04	1.04	1.04	1.00	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	D.P+P	NA		Perm	NA	Prot	Perm	NA		D.P+P	NA	
Protected Phases	1	1 2			2	2		5		4	4 5	
Permitted Phases	2			2			5			5		
Detector Phase	1	1		2	2	2	5	5		4	4	
Switch Phase												
Minimum Initial (s)	5.0			15.0	15.0	15.0	7.0	7.0		5.0		
Minimum Split (s)	9.0			20.7	20.7	20.7	12.1	12.1		9.0		
Total Split (s)	9.0			39.0	39.0	39.0	30.0	30.0		12.0		
Total Split (%)	7.9%			34.2%	34.2%	34.2%	26.3%	26.3%		10.5%		
Maximum Green (s)	5.0			33.3	33.3	33.3	24.9	24.9		8.0		
Yellow Time (s)	3.0			3.6	3.6	3.6	3.0	3.0		3.0		
All-Red Time (s)	1.0			2.1	2.1	2.1	2.1	2.1		1.0		
Lost Time Adjust (s)					0.0	0.0		0.0		0.0		
Total Lost Time (s)					5.7	5.7		5.1		4.0		
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0	3.0		3.0		

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)
 Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)

Lanes, Volumes, Timings

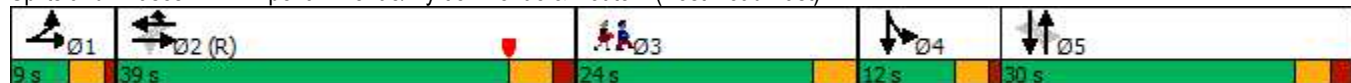
Existing Saturday Mid-day

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Recall Mode	Min			C-Max			C-Max			None					
Walk Time (s)															
Flash Dont Walk (s)															
Pedestrian Calls (#/hr)															
Act Effct Green (s)	56.2			42.8			42.8			20.5			37.0		41.0
Actuated g/C Ratio	0.49			0.38			0.38			0.18			0.32		0.36
v/c Ratio	0.36			0.92			0.41			0.78			0.67		0.27
Control Delay	18.5			51.4			32.0			62.5			39.2		20.6
Queue Delay	0.0			0.0			0.0			0.0			0.0		0.0
Total Delay	18.5			51.4			32.0			62.5			39.2		20.6
LOS	B			D			C			E			D		C
Approach Delay	18.5			47.6						62.5					30.9
Approach LOS	B			D						E					C
Queue Length 50th (ft)	99			350			126			158			126		76
Queue Length 95th (ft)	181			#562			221			238			#287		146
Internal Link Dist (ft)	831			705						568					411
Turn Bay Length (ft)							200						75		
Base Capacity (vph)	1375			1008			559			352			369		743
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	0.36			0.92			0.41			0.64			0.67		0.27

Intersection Summary

Area Type: Other
 Cycle Length: 114
 Actuated Cycle Length: 114
 Offset: 45 (39%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 39.6
 Intersection LOS: D
 Intersection Capacity Utilization 78.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East)



4: Imperial Avenue/Myrtle Avenue & Route 1 (Post Road East) Lanes, Volumes, Timings

Existing Saturday Mid-day

Lane Group	Ø3
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	11
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Myrtle Avenue & Church Lane Lanes, Volumes, Timings

Existing Saturday Mid-day



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	34	174	112	230	254	49
Future Volume (vph)	34	174	112	230	254	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	15	15	15	15
Storage Length (ft)	75	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.850			0.978	
Fl _t Protected	0.950			0.984		
Satd. Flow (prot)	2025	1830	0	2043	2024	0
Fl _t Permitted	0.950			0.984		
Satd. Flow (perm)	2025	1830	0	2043	2024	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	381			491	244	
Travel Time (s)	8.7			11.2	5.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	1%	0%	0%	1%	1%	1%
Adj. Flow (vph)	40	202	130	267	295	57
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	202	0	397	352	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	28			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.88	0.88	0.88	0.88
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.0%
ICU Level of Service	A
Analysis Period (min)	15

5: Myrtle Avenue & Church Lane
 HCM 6th TWSC

Existing Saturday Mid-day

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	174	112	230	254	49
Future Vol, veh/h	34	174	112	230	254	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	0	0	1	1	1
Mvmt Flow	40	202	130	267	295	57

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	851	324	352	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	332	722	1218	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	291	722	1218	-	-	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	643	-	-	-	-	-
Stage 2	594	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1218	-	291	722	-	-
HCM Lane V/C Ratio	0.107	-	0.136	0.28	-	-
HCM Control Delay (s)	8.3	0	19.3	11.9	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.5	1.1	-	-

Appendix D

2023 Speed Data

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
PARKER PLAZA
WESTPORT,CT
Latitude: 0' 0.0000 Undefined

SB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
08/08/23	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	1	14	18	24	4	0	0	0	0	0	0	0	0	0	61	21-30	42
20:00	1	5	21	22	4	0	0	0	0	0	0	0	0	0	53	21-30	43
21:00	1	5	16	16	3	0	1	0	0	0	0	0	0	0	42	21-30	32
22:00	0	4	3	12	6	0	1	0	0	0	0	0	0	0	26	26-35	18
23:00	0	0	2	3	0	2	0	0	0	0	0	0	0	0	7	21-30	5
Total	3	28	60	77	17	2	2	0	0	0	0	0	0	0	189		
Percent	1.6%	14.8%	31.7%	40.7%	9.0%	1.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	19:00	19:00	20:00	19:00	22:00	23:00	21:00								19:00		
	1	14	21	24	6	2	1								61		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
PARKER PLAZA
WESTPORT,CT
Latitude: 0' 0.0000 Undefined

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
08/09/23	0	0	3	2	1	0	0	0	0	0	0	0	0	0	6	21-30	5
01:00	0	0	1	1	2	0	0	0	0	0	0	0	0	0	4	24-33	3
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
03:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	14-23	1
04:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	25-34	3
05:00	0	0	5	8	10	1	0	0	0	0	0	0	0	0	24	26-35	18
06:00	0	0	17	32	17	8	0	0	0	0	0	0	0	0	74	26-35	49
07:00	0	6	24	51	22	5	0	0	0	0	0	0	0	0	108	21-30	75
08:00	5	17	79	105	21	2	0	0	0	0	0	0	0	0	229	21-30	184
09:00	0	19	112	61	21	3	0	0	0	0	0	0	0	0	216	21-30	173
10:00	5	29	117	73	7	1	0	0	0	0	0	0	0	0	232	21-30	190
11:00	4	67	120	58	3	1	0	0	0	0	0	0	0	0	253	16-25	187
12 PM	4	76	149	47	7	0	0	0	0	0	0	0	0	0	283	16-25	225
13:00	11	73	159	52	6	0	0	0	0	0	0	0	0	0	301	16-25	232
14:00	3	55	123	47	9	1	0	0	0	0	0	0	0	0	238	16-25	178
15:00	8	42	111	60	13	0	0	0	0	0	0	0	0	0	234	21-30	171
16:00	0	17	126	69	11	1	1	0	0	0	0	0	0	0	225	21-30	195
17:00	0	15	85	68	18	1	0	0	0	0	0	0	0	0	187	21-30	153
18:00	2	8	63	63	8	0	1	0	0	0	0	0	0	0	145	21-30	126
19:00	1	6	46	31	4	1	0	0	0	0	0	0	0	0	89	21-30	77
20:00	0	11	26	17	3	0	0	0	0	0	0	0	0	0	57	21-30	43
21:00	0	3	21	9	2	0	0	0	0	0	0	0	0	0	35	21-30	30
22:00	0	2	5	16	4	1	0	0	0	0	0	0	0	0	28	21-30	21
23:00	1	0	1	7	1	0	0	0	0	0	0	0	0	0	10	22-31	8
Total	44	446	1394	879	193	26	2	0	0	0	0	0	0	0	2984		
Percent	1.5%	14.9%	46.7%	29.5%	6.5%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	11:00	08:00	07:00	06:00									11:00		
Vol.	5	67	120	105	22	8									253		
PM Peak	13:00	12:00	13:00	16:00	17:00	14:00	16:00								13:00		
Vol.	11	76	159	69	18	1	1								301		

TRAFFIC DATABANK LLC

716 SOUTH SIXTH AVE
MT VERNON,NY,10550

Site Code:
Station ID:
PARKER PLAZA
WESTPORT,CT
Latitude: 0' 0.0000 Undefined

SB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Pace Speed	Number in Pace
08/10/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	21-30	3
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	25-34	4
05:00	0	2	2	7	11	1	0	0	0	0	0	0	0	0	23	26-35	18
06:00	0	1	12	33	11	5	0	0	0	0	0	0	0	0	62	21-30	45
07:00	2	3	20	54	23	4	0	0	0	0	0	0	0	0	106	26-35	77
08:00	0	18	65	89	17	1	0	0	0	0	0	0	0	0	190	21-30	154
09:00	0	22	115	81	15	0	0	0	0	0	0	0	0	0	233	21-30	196
10:00	2	29	139	57	6	1	0	0	0	0	0	0	0	0	234	21-30	196
11:00	3	58	141	49	9	0	0	0	0	0	0	0	0	0	260	16-25	199
12 PM	3	72	136	45	4	2	0	0	0	0	0	0	0	0	262	16-25	208
13:00	4	75	143	65	6	0	0	0	0	0	0	0	0	0	293	16-25	218
14:00	12	77	125	41	9	0	0	0	0	0	0	0	0	0	264	16-25	202
15:00	6	42	104	59	5	0	0	0	0	0	0	0	0	0	216	21-30	163
16:00	0	24	70	70	11	0	0	0	0	0	0	0	0	0	175	21-30	140
17:00	1	5	66	65	20	1	0	0	0	0	0	0	0	0	158	21-30	131
18:00	1	7	40	58	12	0	0	0	0	0	0	0	0	0	118	21-30	98
19:00	1	6	27	28	15	0	0	0	0	0	0	0	0	0	77	21-30	55
20:00	0	5	22	21	3	1	0	0	0	0	0	0	0	0	52	21-30	43
21:00	0	1	9	21	4	1	0	0	0	0	0	0	0	0	36	21-30	30
22:00	0	1	14	13	2	0	0	0	0	0	0	0	0	0	30	21-30	27
23:00	0	1	6	7	1	1	0	0	0	0	0	0	0	0	16	21-30	13
Total	35	450	1256	868	186	18	0	0	0	0	0	0	0	0	2813		
Percent	1.2%	16.0%	44.6%	30.9%	6.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	08:00	07:00	06:00										11:00	
Vol.	3	58	141	89	23	5										260	
PM Peak	14:00	14:00	13:00	16:00	17:00	12:00										13:00	
Vol.	12	77	143	70	20	2										293	
Total	82	924	2710	1824	396	46	4	0	0	0	0	0	0	0	5986		
Percent	1.4%	15.4%	45.3%	30.5%	6.6%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 19 MPH
 50th Percentile : 23 MPH
 85th Percentile : 28 MPH
 95th Percentile : 31 MPH

Stats
 10 MPH Pace Speed : 21-30 MPH
 Number in Pace : 4534
 Percent in Pace : 75.7%
 Number of Vehicles > 55 MPH : 0
 Percent of Vehicles > 55 MPH : 0.0%
 Mean Speed(Average) : 24 MPH