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May 18, 2017

VIA EMAIL AND UPS

Mr. James Sheers
Beacon Planning Board
City of Beacon City Hall
1 Municipal Plaza
Beacon, NY 12508

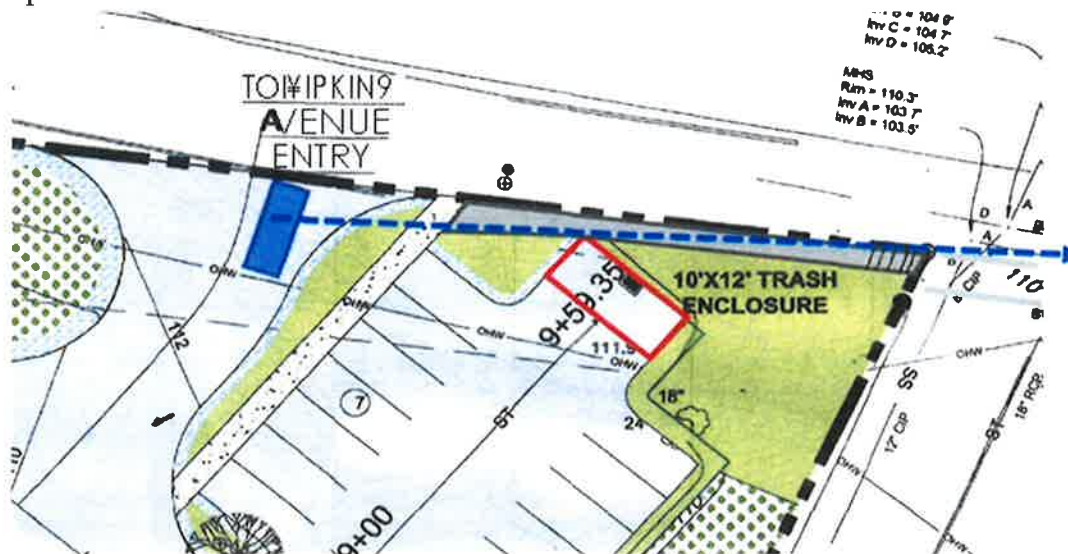
Re: Review of Edgewater
City of Beacon, New York
MC Project No. 16003078A

Dear Chairman Sheers:

We have received the May 5, 2017 letter from Creighton Manning regarding the above referenced project and have the following responses.

Site Plan

1. The sidewalk to Tompkins Avenue should continue east to Bank Street, crossing Bank Street with a crosswalk and accessible ramps. A stop sign should be added to Bank Street. Care should be taken in the design of the dumpster enclosure at the end of the parking lot. The dumpster and/or the enclosure should not block a driver's view exiting to Tompkins Avenue.



Response: *The sidewalk to Tompkins Avenue will be extended to the east to connect to the existing sidewalk along the south side of Tompkins Avenue at the corner of Bank Street. The existing sidewalk in this area is in poor condition and will be replaced with new concrete sidewalk and ADA compliant curb ramps. A crosswalk will be striped crossing Bank Street and a new "STOP" sign with stop bar will be installed on the Bank Street approach. The dumpster enclosure within the north end of the onsite parking lot will be placed such that it does not block the sightline for a vehicle exiting the site driveway.*

2. The sight distance exiting to Tompkins Avenue is limited to 290 feet looking right, which is 45 feet short (at 30 mph) for a driver to turn left out of the site. The only destination to the left is the Tompkins Terrace Apartments; therefore, it is unlikely that drivers will be making left turns from the site driveway.

Response: *Comment noted. No significant left turns exiting the site at this location are expected and therefore it is not anticipated that the limited sight distance will be an issue. It should also be noted that the travel speeds for vehicles approaching the site access location from the east are likely less than 30 mph which would further accommodate this.*

3. Dumpster enclosures should allow for easy access to front fork garbage trucks. The dumpster at the north end of Building 7 may need to be rotated 90 degrees, or will otherwise require the operator to manually pull the dumpster out of the enclosure to gain access with the truck.

Response: *Hudson Land Design will be responding to this separately.*

4. The sidewalk along Branch Street to Bank Street should connect to the sidewalk on the west side of Bank Street with a crosswalk and accessible ramps. A stop sign should be provided on the Branch Street approach. The sight distance looking right is less than recommended, but drivers have a clear view to West Main Street where vehicles turn onto Bank Street and therefore are traveling slower than the speed limit.

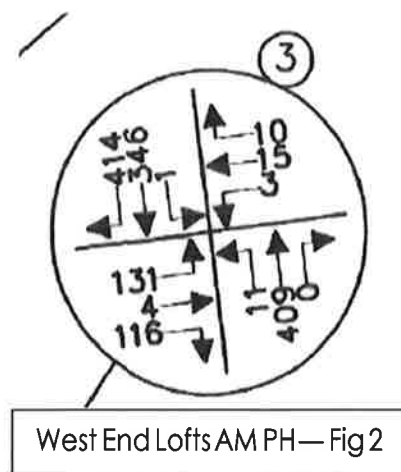
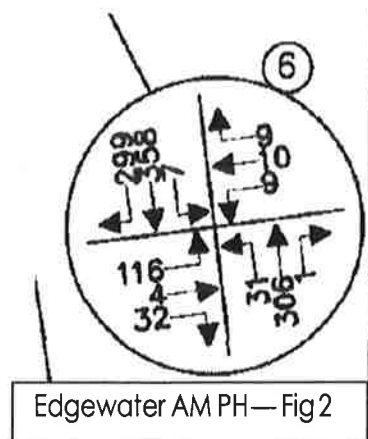
Response: *The sidewalk along Branch Street is proposed to be connected to the sidewalk along the west side of Bank Street with a crosswalk and ADA compliant curb ramps. A "STOP" sign will be installed on the Branch Street approach. Appropriate pedestrian crossing signs will also be installed per MUTCD requirements.*

Traffic Study

5. The traffic counts included in Appendix E are cut off; they appear scanned as portrait rather than landscape leaving about 25% cut off. Turning movement counts for Route 9D at Verplanck Avenue, Beekman/West Church, and Main St/Municipal Place are missing from Appendix E.

Response: *A complete copy of the recent turning movement count data for the W. Church Street/Beekman Street and the Main Street/City Hall intersections are now included. The traffic volumes for the Route 9D/Verplanck Avenue intersection were taken from a previous traffic study completed by our office in the vicinity of the site. These volumes have been balanced with the recent traffic volumes collected in the area and are now representative of current conditions. A complete copy of Appendix "E" of the Traffic Impact Study, including the counts for these additional intersections, is attached*

6. We note some differences in the existing traffic volumes between the Edgewater study and the West End Loft study. For example, the Beekman Avenue/West Church Street/Route 9D intersection has a few movements that are 80 to 115 vehicles different (below). Were different volumes used at the common intersections between the two studies?



Response: *The traffic volume data previously utilized for the Beekman Street/W. Church Street, W. Main Street and Verplanck Avenue intersections in the Edgewater study were based on data from a previous traffic study prepared by our office. The analysis has been revised to utilize the recent traffic volume data collected at the Route 9D/Beekman Street/W. Church*

Street and Route 9D/W. Main Street intersections as part of the West End Lofts project. The volumes at the Route 9D/Verplanck Avenue intersection are based on historical data and balanced with the recent data collected in the area to be representative of existing conditions.

7. A background growth factor of 2% was used; however, our review of historical traffic volumes on Route 9D (2005 to 2012) revealed traffic growth of 3.46% per year.

Response: The 2% per year growth rate utilized in the study accounts for normal background traffic growth in the area of the development. The analysis also accounts for traffic associated with the Views, Edgewater and 555 South Avenue development, when considered together with the normal background traffic growth, the total growth rate from 2017 to 2022 is in excess of 20% along Route 9D. This is comparable to a 3.46% growth rate over the 5 year period, which equates to a total growth percentage of 17.3%.

8. The study included background traffic from other development projects including The Views, West End Lofts, and the 555 South Avenue project. We defer to the Planning Board as to whether this adequately includes nearby projects.

Response: At the time of completion of the Traffic Study, the Views, Edgewater and 555 South Avenue were the other specific projects requested to be included in the Traffic Study as other development projects by the City's Engineer Lanc & Tully.

9. We concur with the trip generation estimate based on ITE sources, noting that no credit was taken for pedestrian trips destined for the train station. We expect that Edgewater residences will find it more convenient to walk (+/-1,500 ft.) to the station rather than drive and park. Are the Tompkins Terrace Apartments a comparable trip generator to which the traffic/pedestrian trip generation could be applied to Edgewater?

Response: Comment noted – Traffic data collected at the intersection of Tompkins Avenue and Bank Street collected as part of the Edgewater development TIS did not indicate any significant pedestrian activity. The actual vehicle trip generation for the proposed development will likely be lower than the estimates contained in Table No. 1 of the Traffic Study due to the anticipated pedestrian trips to and from the train station. We do not

believe that the Tomkins Terrace Apartments are a comparable traffic generator.

10. We generally concur with the trip distribution but note that 35% of vehicle traffic is estimated to travel/to from the train station. Meter parking is available for \$3.50 per day (about \$70 per month or \$910 a year). Permit parking for residents is about \$325 per year but there is a waiting list. All things considered, the estimation of traffic to/from the train station may be conservatively estimated.

Response: *Comment noted. The 35% of traffic destined to the train station accounts for the likelihood that many residents of the Edgewater development will walk to the train station due to its proximity to the site. No credit for pedestrian trips was taken in the trip generation estimates so this does represent a higher percentage of vehicular traffic to the train station than is expected, but is conservative.*

11. In Table 2 (Level of Service Summary), some of the delay estimates in the table do not reflect the expected operations and/or the reports included in Appendix E.

- a. LOS for NYS Route 9D/Tompkins Ave — Signalized calcs are provided for AM peak hour (existing, no-build) and unsignalized for PM peak hour (intersection is unsignalized)

Response: *Comment noted. The AM Peak Hour analyses for this intersection have been corrected. The results are summarized in Table 2-R, attached. It should be noted that the results summarized in Table 2 of the original Traffic Study correctly represented the operation of this intersection as an unsignalized intersection.*

- b. LOS Beekman St/W. Main St: how does EB approach for No-Build being D (31.2) jump to Build F (63.2)? Is this due to 35% of site traffic (from train station) turning left from Beekman St onto W. Main St?

Response: *This increase in delay on the eastbound approach is due in part to the 43 (35% of site traffic) additional vehicles turning left from Beekman Street to W. Main Street as well as the additional traffic (7 vehicles) turning left from W. Main Street onto Beekman Street.*

- c. Section III-F-5, says that NYS Route 9D/Verplanck Ave will continue to operate at LOS C during each peak hours with and without the proposed project. However, in Table 2 the overall LOS for this intersection is D for both No-Build and Build conditions. The calcs show LOS E operations for the westbound right turn movement in the PM peak hours but the timing calcs don't appear to allow for a right turn overlap phase.

Response: *The right turn overlap phase from Verplanck Avenue onto Route 9D has been added to the SYNCHRO analyses. The results indicate that the intersection will operate at a Level of Service "C" during the PM Peak Hour both with and without the project. During the AM Peak Hour, the overall Level of Service is expected to drop from a Level of Service "D" to a Level of Service "E" as a result of the project. However, timing modifications have been identified that would improve the intersection operation under Build conditions to be similar to future No-Build conditions.*

12. Most of the intersections will operate adequately with completion of the proposed project, and by inclusion, with The Views and West End Lofts.

Response: *Comment noted. No further response necessary.*

13. Signalizing the intersection of Route 9D/Tompkins Avenue/Ralph Street is suggested as possible mitigation to reduce a drop in level of service. If the signal is unwarranted, installation could result in a net increase in delays by unnecessarily stopping through traffic for relatively low side street volumes. The pros and cons should be discussed with the City.

Response: *Comment noted. This intersection is proposed to be monitored after completion of the proposed development and other area developments to determine if signalization is warranted. If necessary, the Applicant would participate in a fair share contribution towards signalization if a traffic signal is warranted.*

14. The intersection of Beekman Street/W. Main St will have a fourth leg created by The Views. As an unsignalized intersection, the Views driveway is estimated to operate adequately through completion of the Edgewater project. The eastbound approach of Beekman Street is expected to experience an increase in delays during the PM peak hour, LOS D (31.2 seconds) 4 LOS F (63 seconds). Therefore, the traffic study recommends monitoring the intersection for future signalization.

The Edgewater project adds only 7 trips on the eastbound stop sign approach of W. Main Street, but adds 43 trips (35% trip distribution) to the left turn from Beekman Street onto W. Main Street heading to the site in the PM peak hour (see comment 10). Field observations indicated periods of concentrated traffic flows going north on Beekman Street shortly after the arrival of an afternoon train, followed by lulls between arrivals. Therefore, the Board should discuss whether this degradation in operation is considered an acceptable temporary condition. However, if signalization becomes necessary, we suggest identifying the fair share amount of responsibility that the Edgewater project has at this intersection.

Response: Comment noted. This intersection is proposed to be monitored after completion of the development and other developments in the area to determine if signalization is warranted. If necessary, the Applicant would participate in a fair share contribution towards signalization if a traffic signal is warranted.

15. At the Route 9D/Verplanck Avenue intersection, the Edgewater project will add traffic to the northbound and southbound Route 9D approaches. The northbound approach is expected to increase by approximately 5 seconds, the southbound approach by about 6 seconds during the PM peak hour. However, the southbound left turn movement from Route 9D to Verplanck Avenue is expected to increase by 27 seconds (E (69.9) H F (97.0)). The applicant should discuss means of mitigation for this impact.

Response: The analysis of this intersection has been revised to reflect the most recent traffic volume data and to include the right turn overlap phase on the Verplanck Avenue approach. The results indicate that some minor timing modifications will be required in the future with the proposed project during the AM Peak Hour. Similar signal timing modifications could also be made during the PM Peak Hour to reduce impacts to the southbound left turn movement, although the proposed project will not add additional traffic to this movement..



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16. At the Route 9D/Beekman Street/W. Church Street intersection, the northbound left turn movement is expected to drop from LOS D (52.1sec) to LOS E (59.4) in the PM peak hour as the result of an additional 12 project trips to the movement. This equates to one vehicle every 3 to 4 cycles of the signal. Minor signal timing adjustments may be able to correct this reduction. Any changes in timings as part of the West End project/study should be coordinated in this study.

Response: The analyses for this intersection have been revised utilizing the more recent traffic volume data collected. The results of the revised analyses are summarized in Table No. 2-R. The results indicate that some minor signal timing modifications will be required to accommodate the future area traffic volumes. These timing modifications have also been coordinated with the timing modifications recommended in the West End Lofts Traffic Impact Study.

If you have any questions regarding the above, please do not hesitate to contact us.

Very truly yours,

MASER CONSULTING P.A.

A handwritten signature in black ink, appearing to read 'Philip J. Grealy', written over a horizontal line.

Philip J. Grealy, Ph.D., P.E.
Principal/Department Manager

A handwritten signature in black ink, appearing to read 'Richard G. D'Andrea', written over a horizontal line.

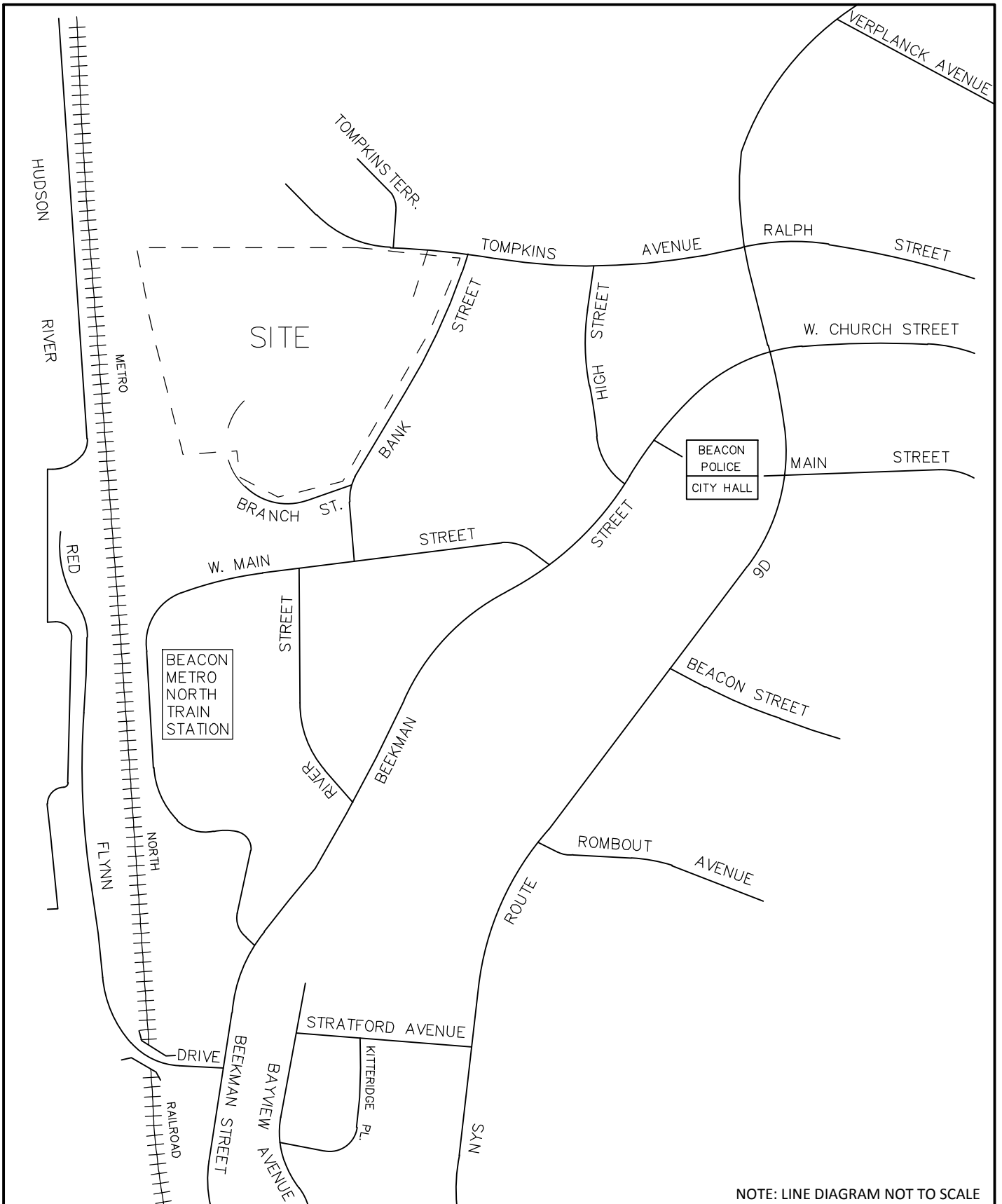
Richard G. D'Andrea, P.E., PTOE
Associate/Project Manager

PJG/ces
Enclosures
cc:

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EDGEWATER

REVISED TRAFFIC VOLUME FIGURES



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SITE LOCATION MAP

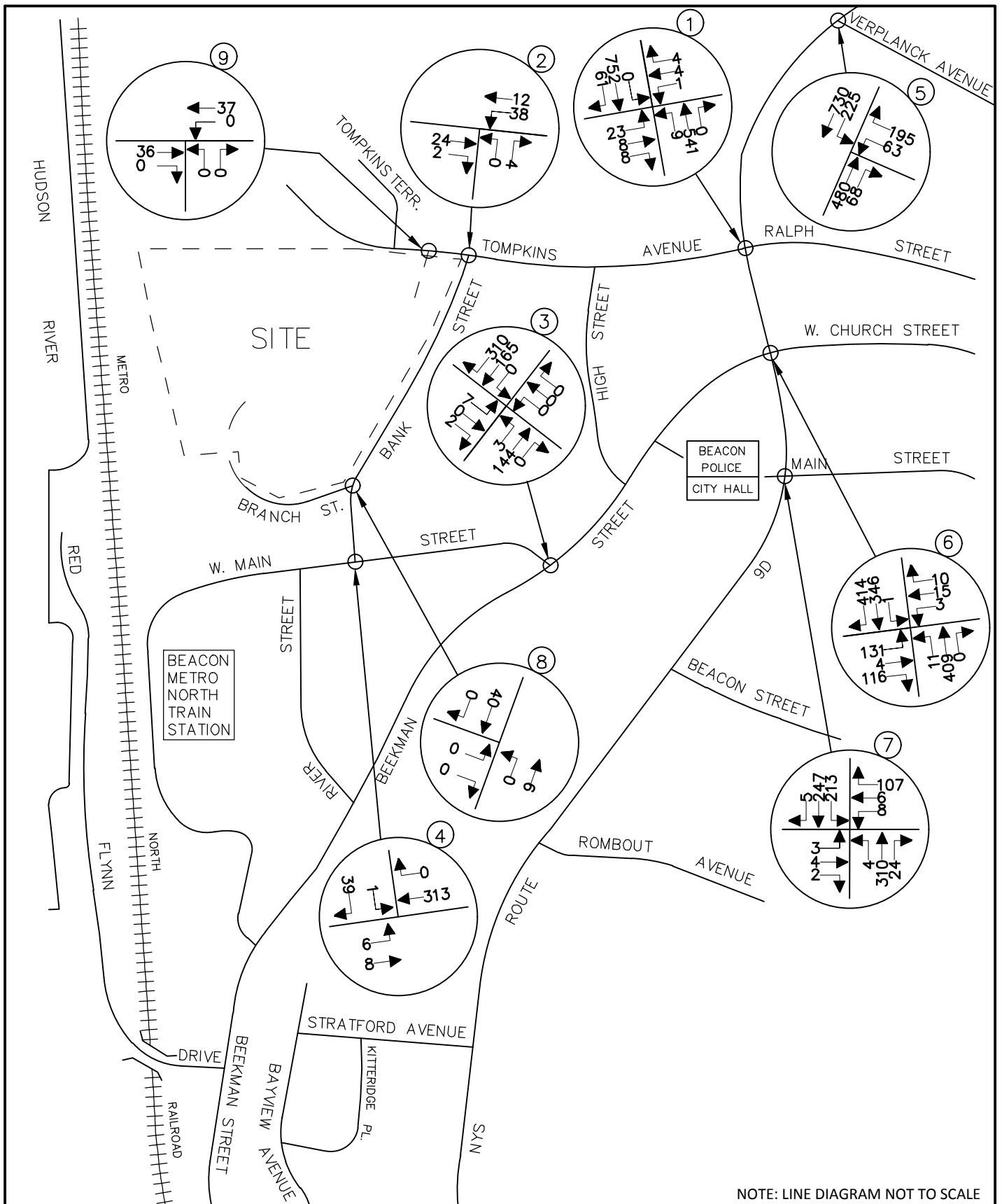


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16003078A 5/9/2017

FIGURE NUMBER:

1



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2017 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

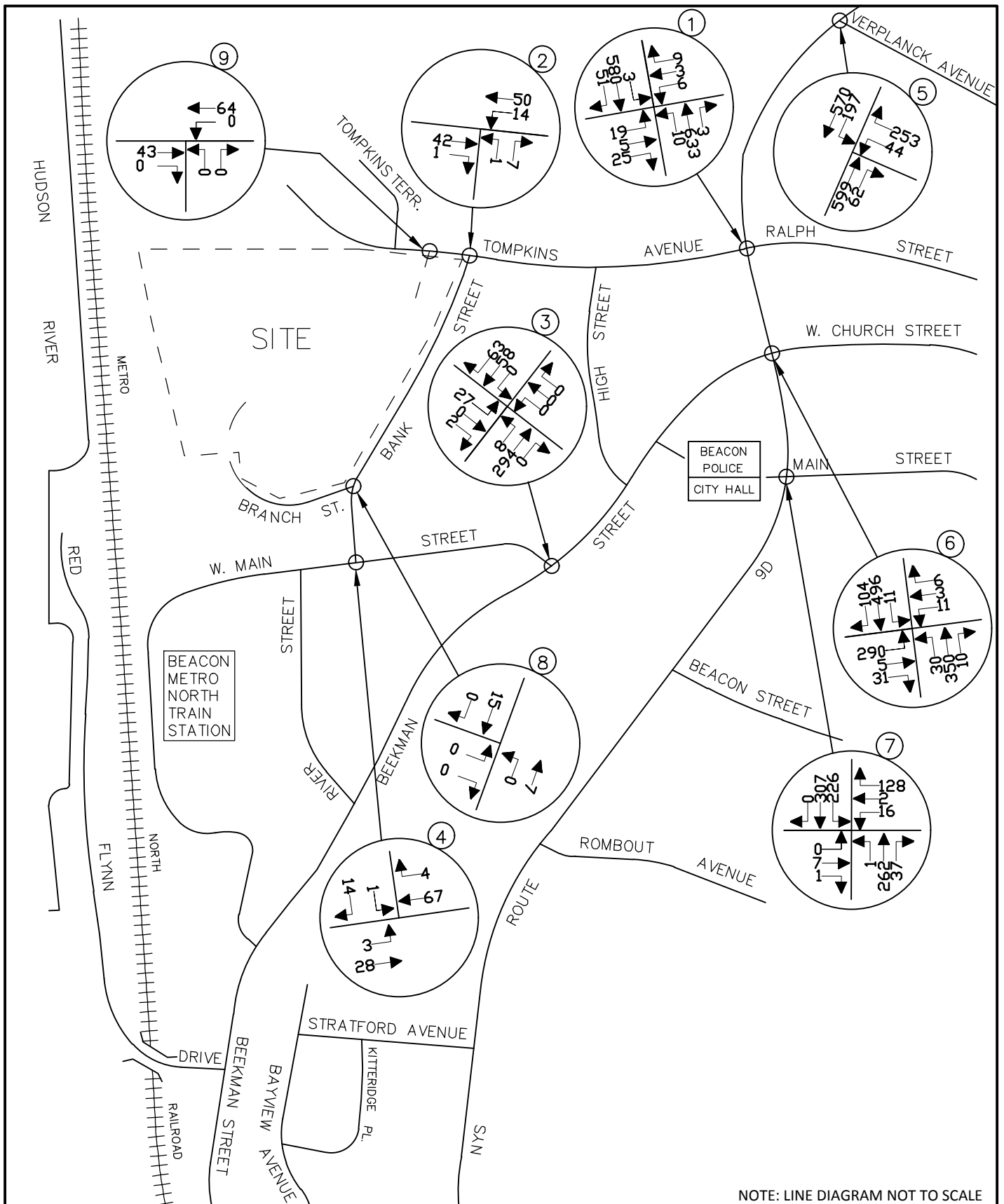


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2017 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

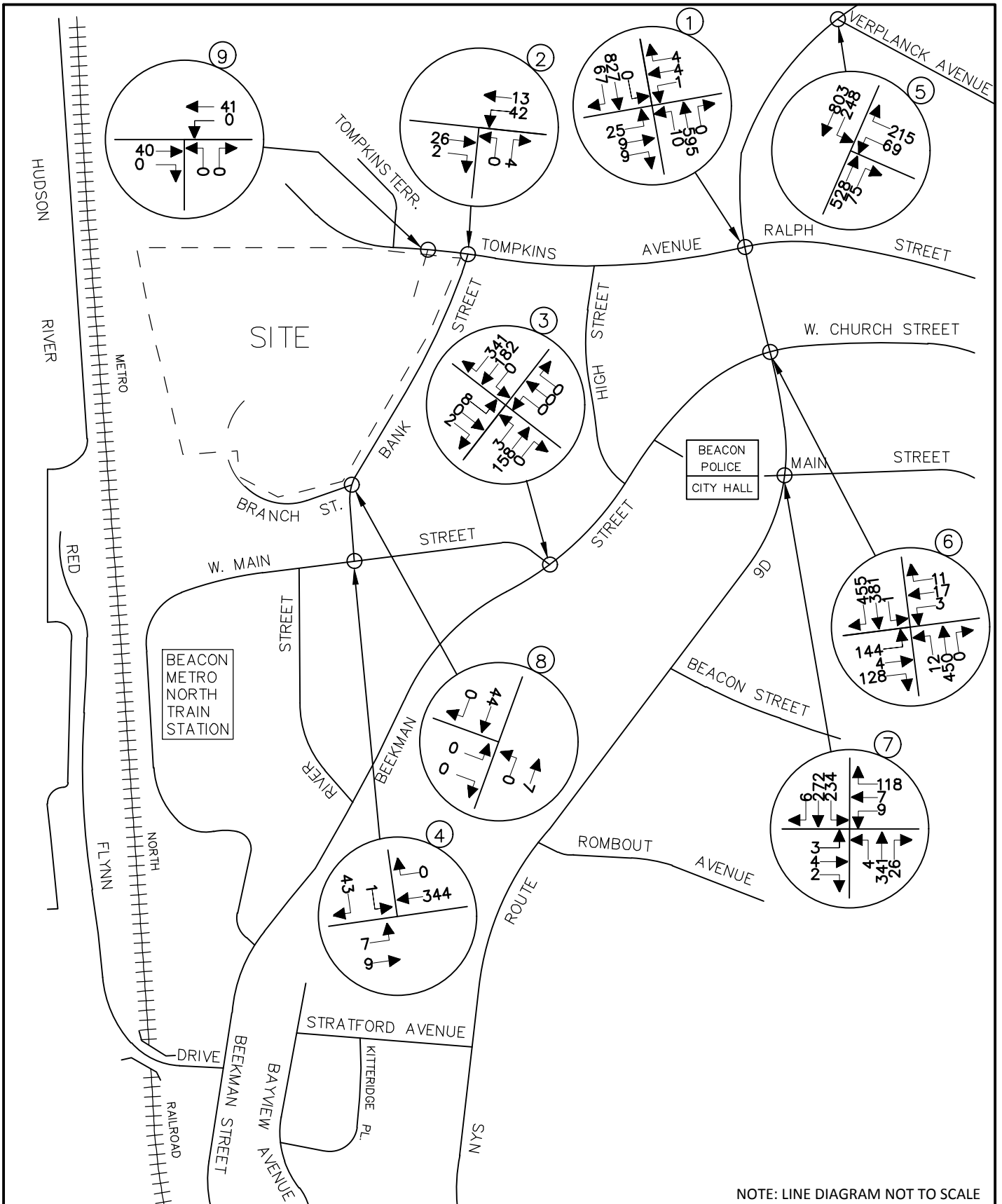


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2022 PROJECTED TRAFFIC VOLUMES WEEKDAY PEAK AM HOUR

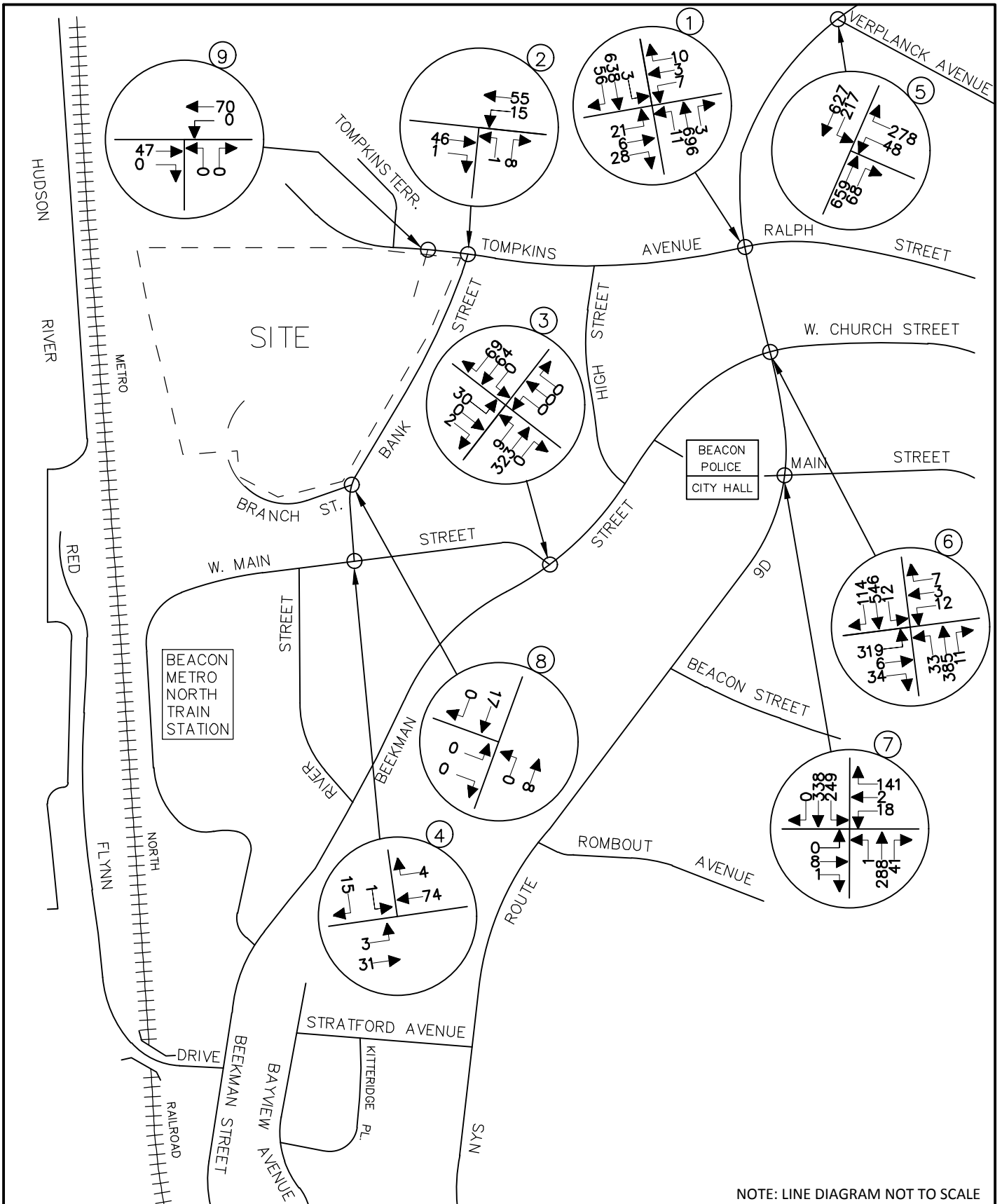


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2022 PROJECTED TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR

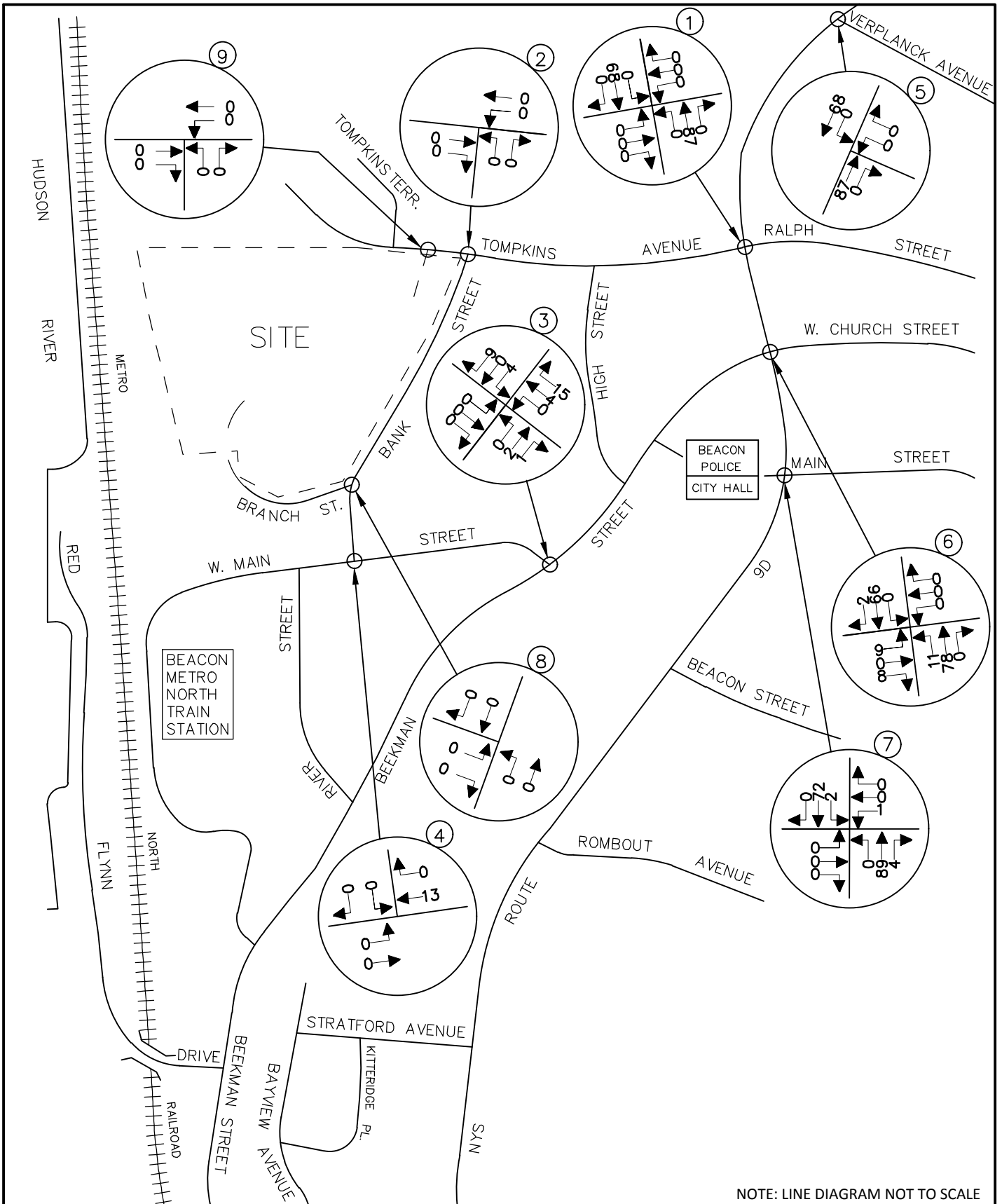


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OTHER DEVELOPMENT TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

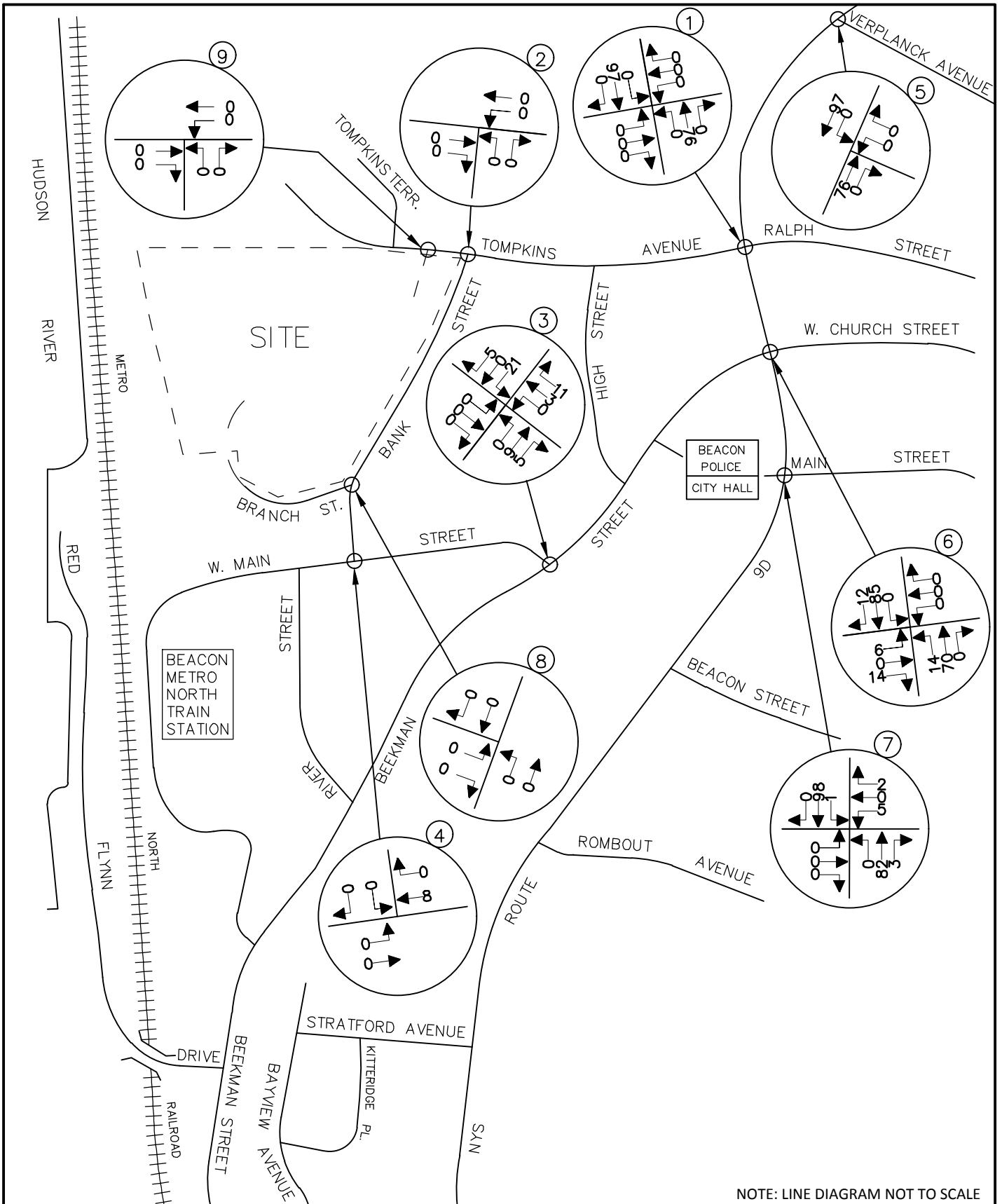


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OTHER DEVELOPMENT TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

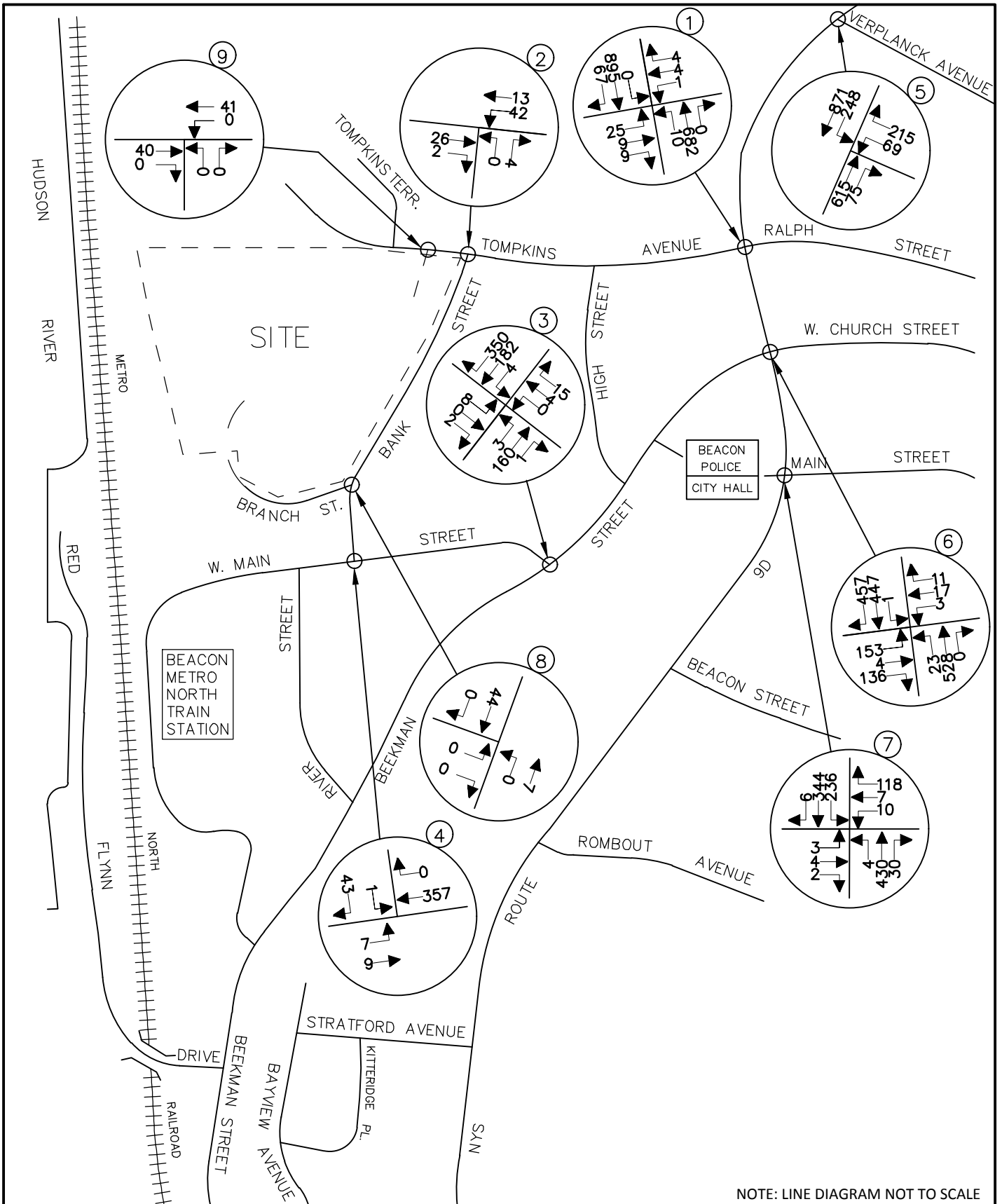


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2022 NO-BUILD TRAFFIC VOLUMES WEEKDAY PEAK AM HOUR

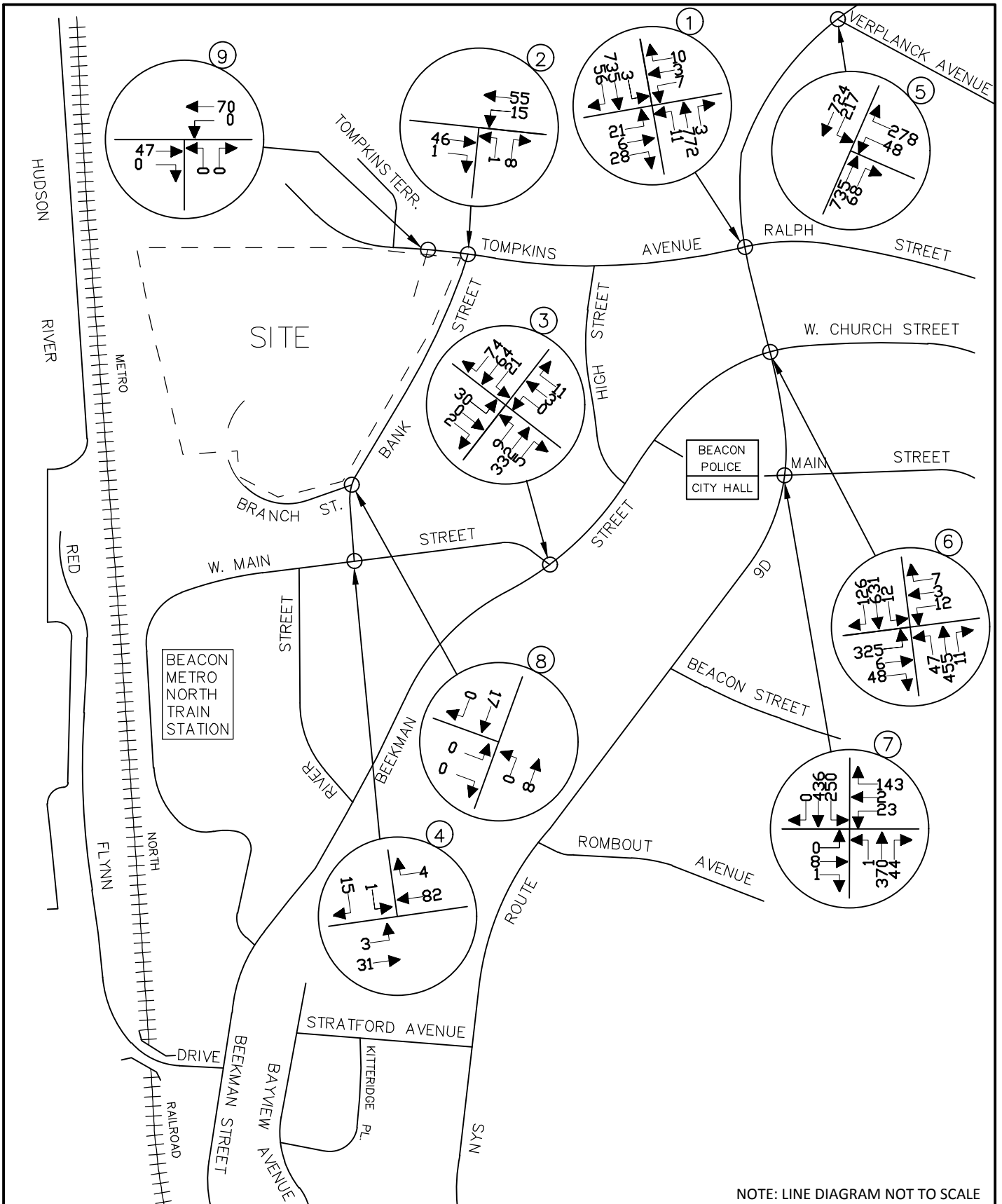


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2022 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

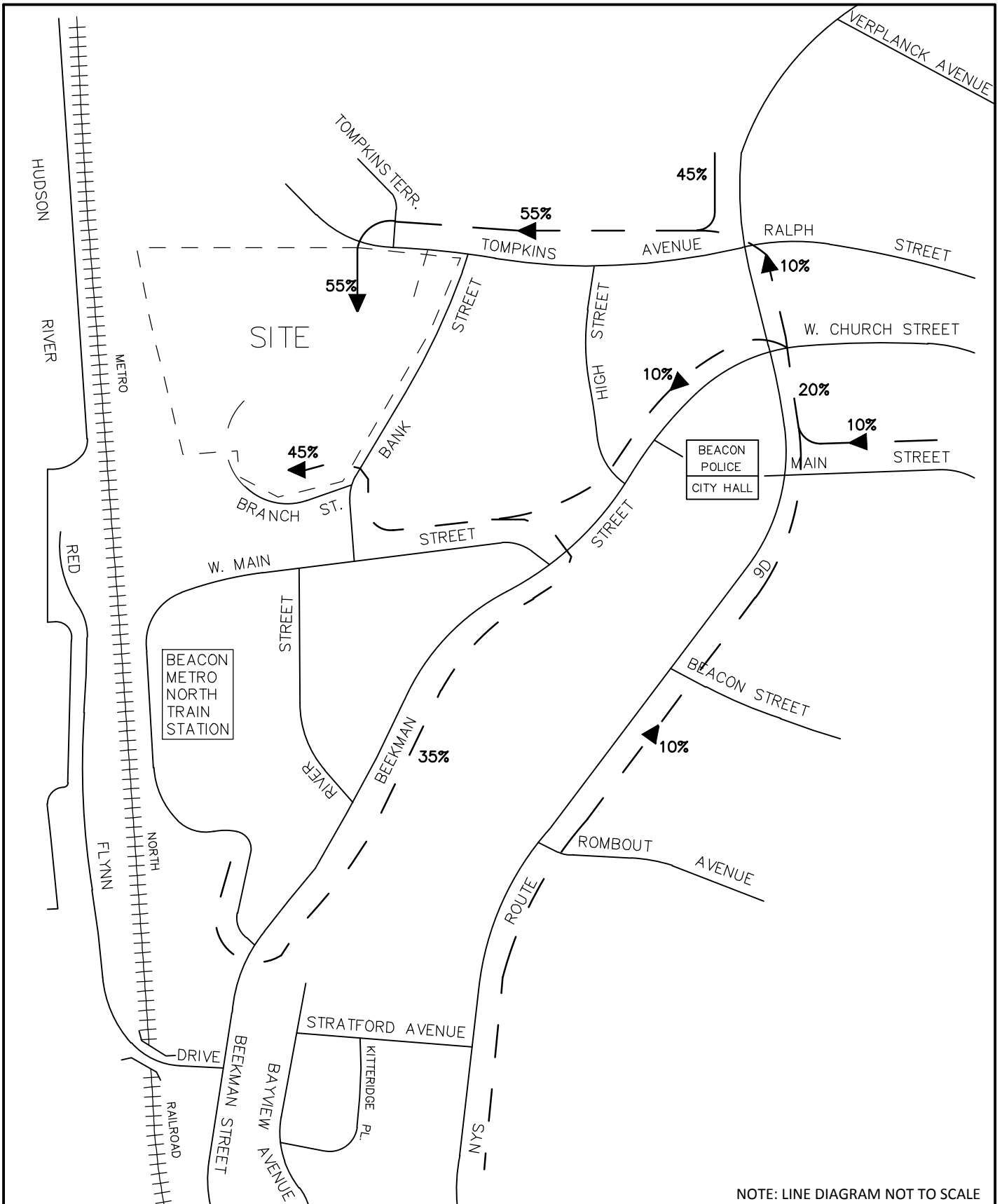


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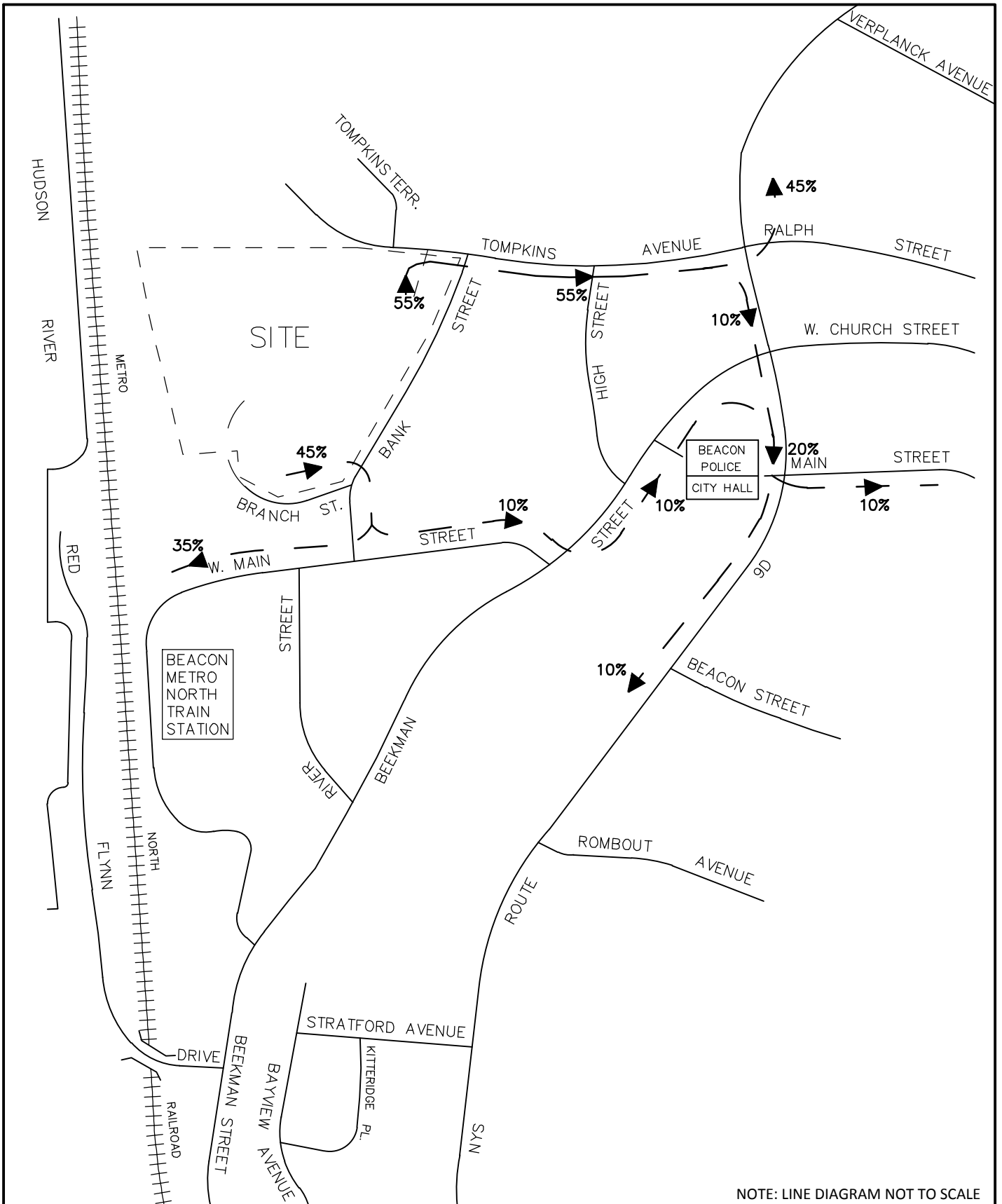


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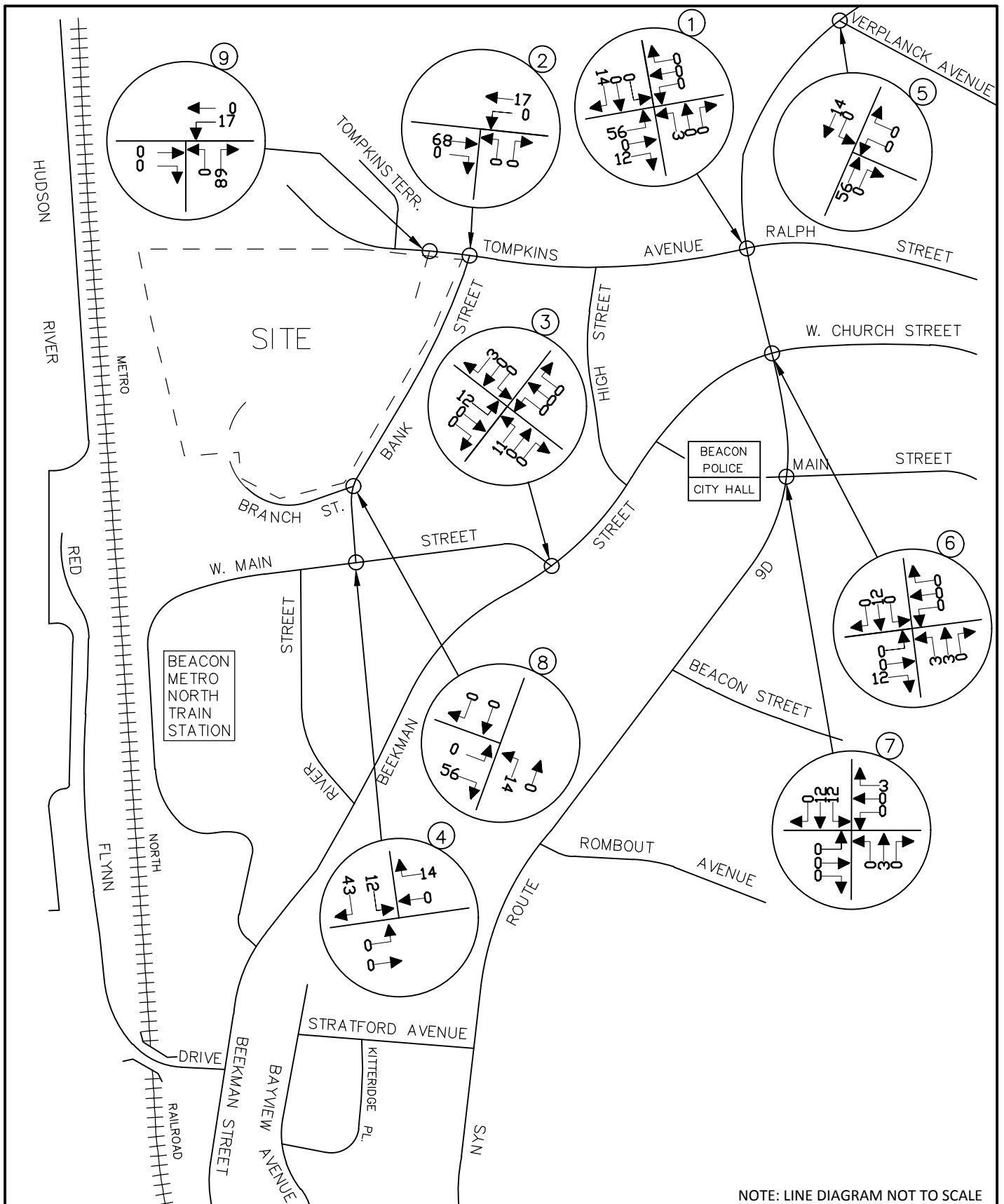


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SITE GENERATED TRAFFIC VOLUMES WEEKDAY PEAK AM HOUR

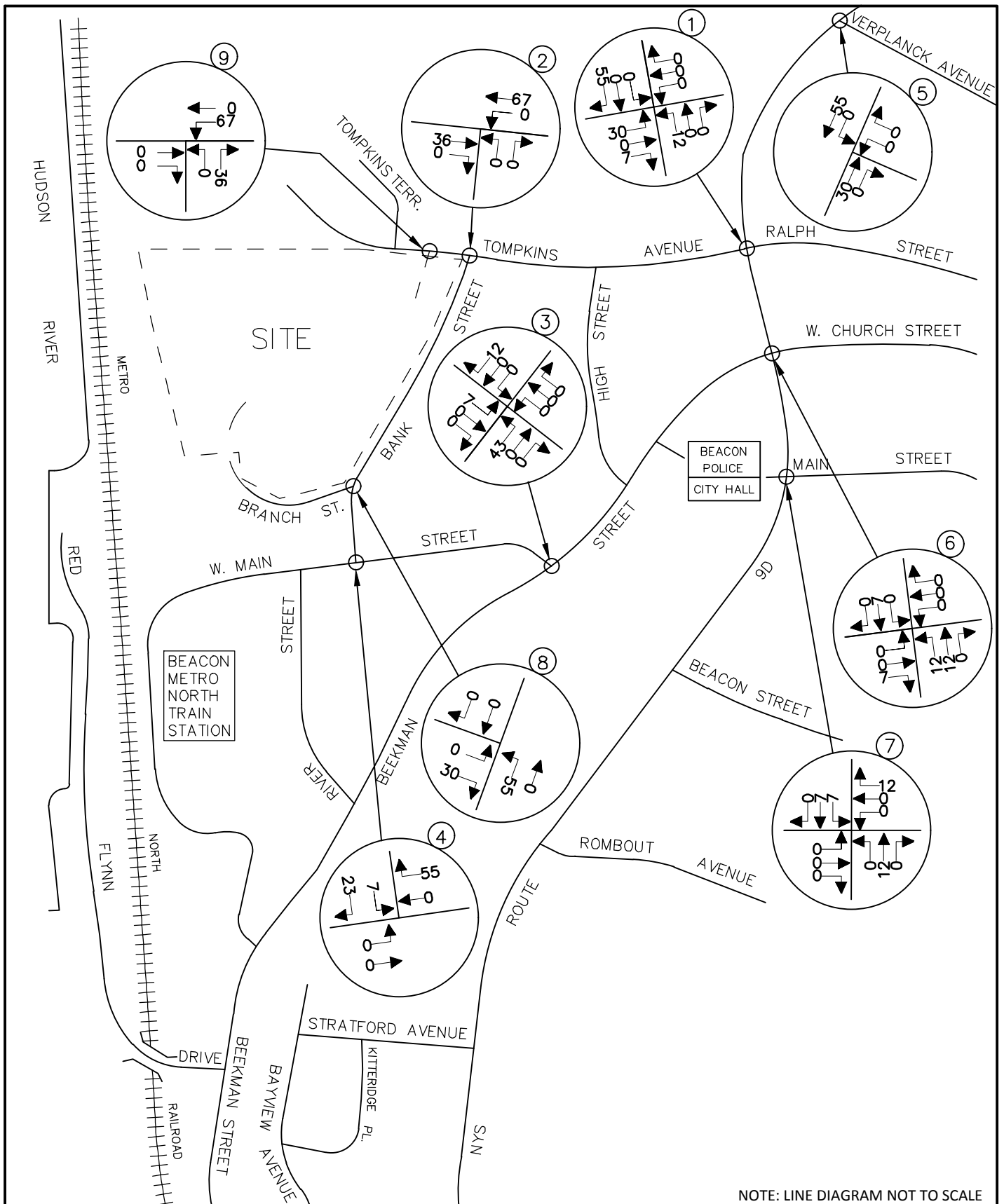


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SITE GENERATED TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR

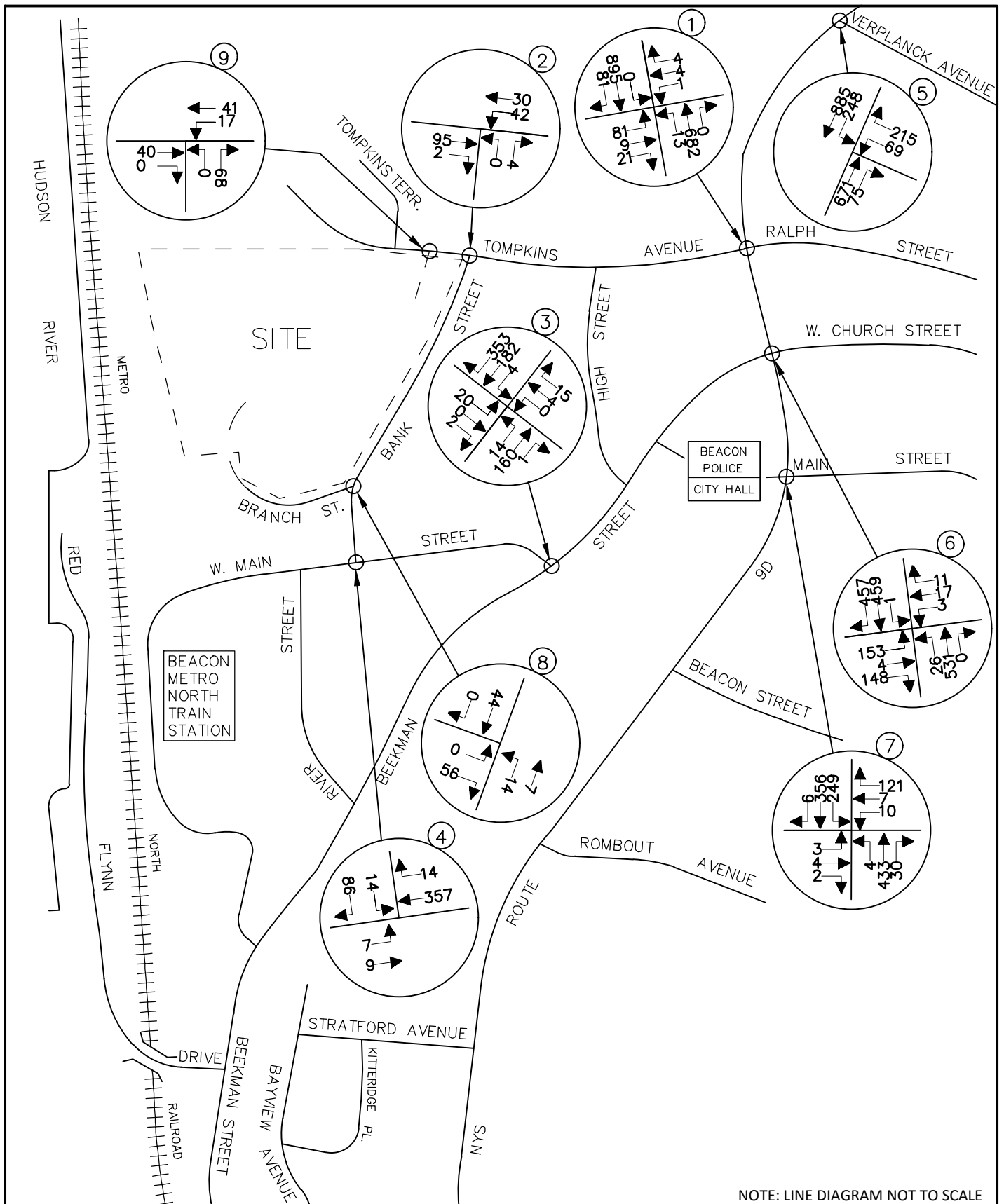


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2022 BUILD TRAFFIC VOLUMES WEEKDAY PEAK AM HOUR

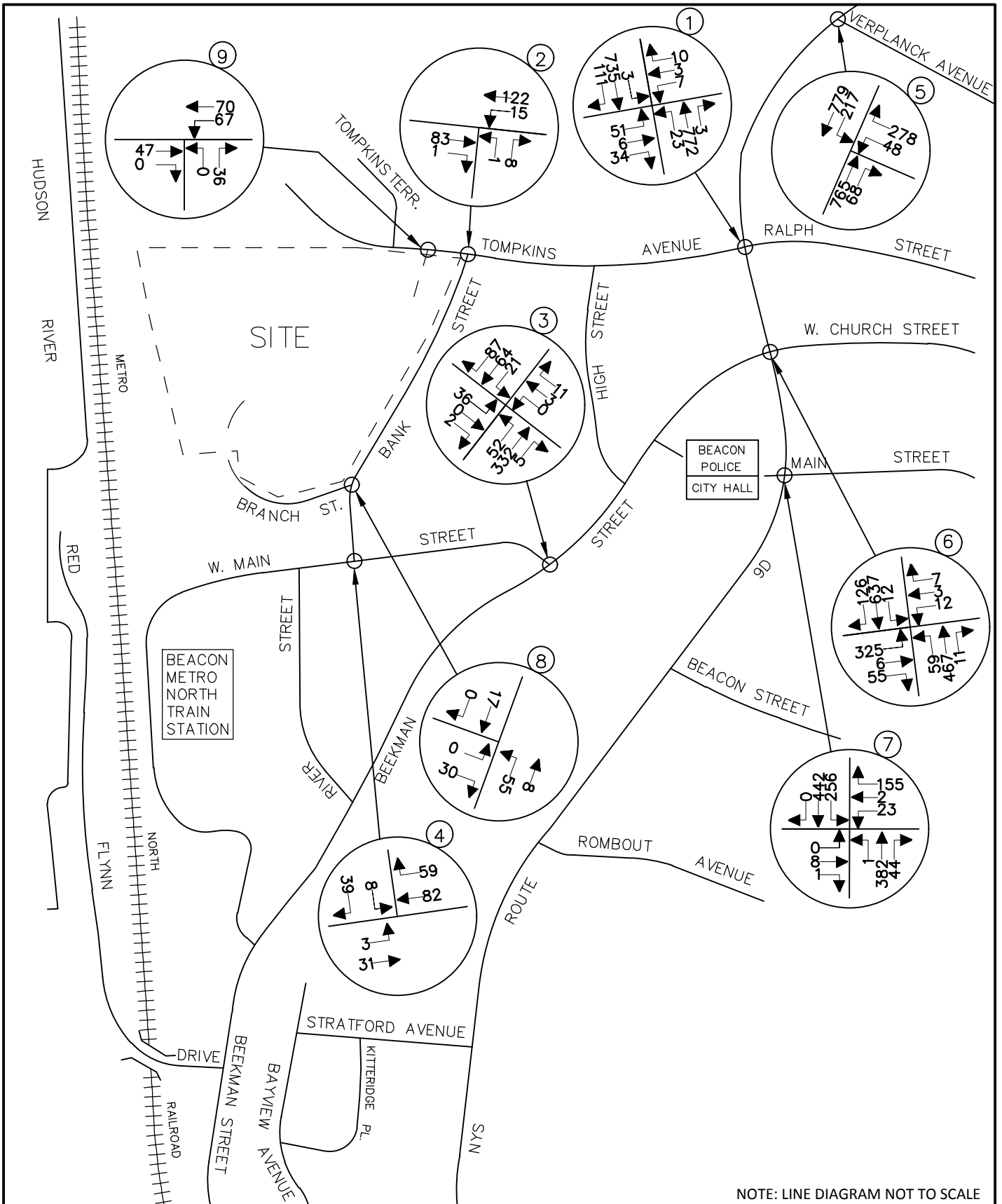


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2022 BUILD TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR



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REVISED LEVEL OF SERVICE SUMMARY TABLE (TABLE NO. 2-R)

TABLE NO. 2-R
LEVEL OF SERVICE SUMMARY TABLE

				2017 EXISTING		2022 NO BUILD		2022 BUILD	
				AM	PM	AM	PM	AM	PM
1	NYS ROUTE 9D & TOMPKINS AVENUE/RALPH STREET	UNSIGNALIZED							
	TOMPKINS AVENUE	EB		C[20.9]	C[16.3]	D[26.7]	C[20.0]	E[46.9]	D[26.6]
	RALPH STREET	WB		C[17.2]	C[16.5]	C[20.6]	C[20.0]	C[21.1]	C[20.9]
	NYS ROUTE 9D	NB		B[10.4]	A[9.1]	B[11.4]	A[9.8]	B[11.5]	B[10.2]
	NYS ROUTE 9D	SB		A[8.7]	A[8.9]	A[9.3]	A[9.4]	A[9.3]	A[9.4]
	<u>W/SIGNALIZATION</u>								
	TOMPKINS AVENUE	EB		-	-	-	-	D[35.5]	D[35.3]
	RALPH STREET	WB		-	-	-	-	C[31.3]	C[32.4]
	NYS ROUTE 9D	NB		-	-	-	-	A[5.9]	A[5.2]
	NYS ROUTE 9D	SB		-	-	-	-	B[11.0]	A[5.6]
	OVERALL			-	-	-	-	B[10.7]	A[7.2]
2	TOMPKINS AVENUE & BANK STREET/COLONIAL ROAD	UNSIGNALIZED							
	TOMPKINS AVENUE	WB		A[7.3]	A[7.4]	A[7.3]	A[7.4]	A[7.5]	A[7.5]
	BANK STREET	NB		A[8.5]	A[8.7]	A[8.5]	A[8.7]	A[9.0]	A[9.0]
3	BEEKMAN STREET & W. MAIN STREET	UNSIGNALIZED							
	W. MAIN STREET	EB		B[13.3]	C[18.8]	-	-	-	-
	BEEKMAN STREET	NE		A[9.9]	A[8.0]	-	-	-	-
	<u>W/THE VIEWS DEVELOPMENT</u>								
	W. MAIN STREET	EB		-	-	C[15.9]	D[31.2]	C[18.1]	F[63.2]
	THE VIEWS DEVELOPMENT	WB		-	-	B[11.1]	B[14.4]	B[11.3]	C[16.0]
	BEEKMAN STREET	NEB		-	-	B[10.2]	A[8.1]	B[10.3]	A[8.4]
	BEEKMAN STREET	SWB		-	-	A[7.6]	A[8.9]	A[7.6]	A[8.9]
	<u>W/SIGNALIZATION</u>								
	W. MAIN STREET	EB		-	-	-	-	B[12.8]	B[14.4]
	THE VIEWS DEVELOPMENT	WB		-	-	-	-	B[12.8]	B[13.6]
	BEEKMAN STREET	NEB		-	-	-	-	A[3.5]	A[5.4]
	BEEKMAN STREET	SWB		-	-	-	-	A[5.4]	A[3.7]
	OVERALL			-	-	-	-	A[5.4]	A[5.6]
4	W. MAIN STREET & BANK STREET	UNSIGNALIZED							
	W. MAIN STREET	EB		A[8.1]	A[7.4]	A[8.3]	A[7.4]	A[8.3]	A[7.6]
	BANK STREET	SB		B[10.7]	A[8.8]	B[11.2]	A[8.9]	B[12.1]	A[9.3]
5	NYS ROUTE 9D & VERPLANCK AVENUE	SIGNALIZED							
	VERPLANCK AVENUE	WB		C[26.9]	C[31.7]	C[27.5]	D[38.7]	C[27.5]	D[38.7]
	NYS ROUTE 9D	NE		C[29.5]	C[24.7]	D[40.6]	D[34.4]	D[50.4]	D[38.1]
	NYS ROUTE 9D	SW		C[24.5]	B[14.4]	D[47.6]	C[22.8]	E[66.7]	C[27.1]
	OVERALL			C[26.4]	B[19.9]	D[42.6]	C[29.8]	E[55.9]	C[33.1]
	<u>W/TIMING IMPROVEMENTS</u>								
	VERPLANCK AVENUE	WB		-	-	-	-	C[27.8]	-
	NYS ROUTE 9D	NE		-	-	-	-	D[54.5]	-
	NYS ROUTE 9D	SW		-	-	-	-	D[35.1]	-
	OVERALL			-	-	-	-	D[40.8]	-

NOTES:

- 1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

TABLE NO. 2-R
LEVEL OF SERVICE SUMMARY TABLE

				2017 EXISTING		2022 NO BUILD		2022 BUILD	
				AM	PM	AM	PM	AM	PM
6	NYS ROUTE 9D & BEEKMAN STREET/W. CHURCH STREET	SIGNALIZED							
	BEEKMAN STREET	EB		C[25.4]	C[28.4]	C[25.6]	C[33.3]	C[25.9]	C[33.5]
	W. CHURCH STREET	WB		C[22.4]	C[21.3]	C[22.2]	C[22.8]	C[22.2]	C[23.0]
	NYS ROUTE 9D	NB		A[7.4]	B[16.3]	A[9.5]	C[20.9]	A[9.6]	C[21.2]
	NYS ROUTE 9D	SB		C[18.7]	C[28.4]	D[50.0]	F[82.4]	E[55.0]	F[86.8]
		OVERALL		B[16.7]	C[24.8]	C[33.0]	D[51.8]	D[35.6]	D[53.5]
	<u>W/TIMING IMPROVEMENTS</u>								
	BEEKMAN STREET	EB		-	-	-	-	C[28.1]	D[52.2]
	W. CHURCH STREET	WB		-	-	-	-	C[24.1]	C[25.4]
	NYS ROUTE 9D	NB		-	-	-	-	A[9.3]	B[16.9]
	NYS ROUTE 9D	SB		-	-	-	-	D[44.1]	D[44.2]
		OVERALL		-	-	-	-	C[30.4]	D[37.3]
7	NYS ROUTE 9D & MAIN STREET/MUNICIPAL PLACE	SIGNALIZED							
	BEACON CITY HALL	EB		C[24.4]	C[24.3]	C[24.4]	C[24.3]	C[24.4]	C[24.3]
	MAIN STREET	WB		C[23.5]	C[23.9]	C[23.7]	C[24.2]	C[23.7]	C[24.6]
	NYS ROUTE 9D	NB		A[7.7]	A[7.6]	A[9.1]	A[8.7]	A[9.1]	A[8.9]
	NYS ROUTE 9D	SB		A[7.9]	A[8.1]	A[9.7]	A[10.0]	A[10.0]	B[10.2]
		OVERALL		A[10.0]	B[10.4]	B[11.1]	B[11.5]	B[11.3]	B[11.8]
8	BRANCH STREET (SITE ACCESS) & BANK STREET	UNSIGNALIZED							
	BRANCH STREET	EB		-	-	-	-	A[8.8]	A [8.5]
	BANK STREET	NB		-	-	-	-	A[7.3]	A [7.3]
9	TOMPKINS AVENUE & SITE ACCESS	UNSIGNALIZED							
	TOMPKINS AVENUE	WB		-	-	-	-	A[7.4]	A [7.4]
	SITE ACCESS	NB		-	-	-	-	A[8.9]	A [8.7]

NOTES:

- 1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.



EDGEWATER

REVISED CAPACITY ANALYSIS

2017 Existing Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	8	8	1	4	4	9	541	1	1	752	61
Future Volume (vph)	23	8	8	1	4	4	9	541	1	1	752	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			-1%			0%			-5%	
Storage Length (ft)	0		0	0		0	120		0	120		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.972			0.939						0.989	
Flt Protected		0.971			0.995		0.950			0.950		
Satd. Flow (prot)	0	1820	0	0	1784	0	1543	1810	0	1850	1832	0
Flt Permitted		0.971			0.995		0.950			0.950		
Satd. Flow (perm)	0	1820	0	0	1784	0	1543	1810	0	1850	1832	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		833			226			335			948	
Travel Time (s)		18.9			5.1			7.6			21.5	
Confl. Peds. (#/hr)	3			3			2			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%	0%	0%	0%	0%	0%	17%	5%	0%	0%	5%	7%
Adj. Flow (vph)	26	9	9	1	5	5	10	622	1	1	864	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	11	0	10	623	0	1	934	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	0.97	0.97	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

2017 Existing Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour
05/09/2017

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↗		↙	↗	
Traffic Vol, veh/h	23	8	8	1	4	4	9	541	1	1	752	61
Future Vol, veh/h	23	8	8	1	4	4	9	541	1	1	752	61
Conflicting Peds, #/hr	3	0	0	3	0	0	2	0	0	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	-1	-	-	0	-	-	-5	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	17	5	0	0	5	7
Mvmt Flow	26	9	9	1	5	5	10	622	1	1	864	70
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1555	1550	904	1559	1584	627	936	0	0	625	0	0
Stage 1	904	904	-	645	645	-	-	-	-	-	-	-
Stage 2	651	646	-	914	939	-	-	-	-	-	-	-
Critical Hdwy	6.5	5.9	5.9	6.9	6.3	6.1	4.27	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.353	-	-	2.2	-	-
Pot Cap-1 Maneuver	120	149	365	101	120	496	674	-	-	966	-	-
Stage 1	388	417	-	481	488	-	-	-	-	-	-	-
Stage 2	513	524	-	347	364	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	115	146	363	94	118	494	672	-	-	964	-	-
Mov Cap-2 Maneuver	248	275	-	215	238	-	-	-	-	-	-	-
Stage 1	382	416	-	473	480	-	-	-	-	-	-	-
Stage 2	495	515	-	330	363	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	20.9			17.2			0.2			0		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	672	-	-	271	305	964	-	-				
HCM Lane V/C Ratio	0.015	-	-	0.165	0.034	0.001	-	-				
HCM Control Delay (s)	10.4	-	-	20.9	17.2	8.7	-	-				
HCM Lane LOS	B	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.6	0.1	0	-	-				

2017 Existing Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	24	2	38	12	0	4
Future Volume (vph)	24	2	38	12	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-2%			1%	7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.991				0.865	
Flt Protected				0.964		
Satd. Flow (prot)	1801	0	0	1774	1586	0
Flt Permitted				0.964		
Satd. Flow (perm)	1801	0	0	1774	1586	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	236			833	796	
Travel Time (s)	5.4			18.9	18.1	
Confl. Peds. (#/hr)			2			1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	0%	0%	11%	0%	0%
Adj. Flow (vph)	29	2	46	15	0	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	31	0	0	61	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.01	1.01	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2017 Existing Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	3.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	2	38	12	0	4
Future Vol, veh/h	24	2	38	12	0	4
Conflicting Peds, #/hr	0	0	2	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	1	7	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	0	0	11	0	0
Mvmt Flow	29	2	46	15	0	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	34	0	139	33
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	107	-
Critical Hdwy	-	-	4.1	-	7.8	6.9
Critical Hdwy Stg 1	-	-	-	-	6.8	-
Critical Hdwy Stg 2	-	-	-	-	6.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1591	-	814	1040
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1590	-	789	1037
Mov Cap-2 Maneuver	-	-	-	-	789	-
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	859	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		5.6		8.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1037	-	-	1590	-	
HCM Lane V/C Ratio	0.005	-	-	0.029	-	
HCM Control Delay (s)	8.5	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.1	-	

2017 Existing Traffic Volumes
3: Beekman Street/Beekman Street & W. Main Street

Weekday Peak AM Hour
05/09/2017



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	7	2	3	144	165	310
Future Volume (vph)	7	2	3	144	165	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%			-1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.973				0.912	
Flt Protected	0.962			0.999		
Satd. Flow (prot)	1734	0	0	1793	1733	0
Flt Permitted	0.962			0.999		
Satd. Flow (perm)	1734	0	0	1793	1733	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	640			321	353	
Travel Time (s)	14.5			7.3	8.0	
Confl. Peds. (#/hr)			1			
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	0%	67%	5%	1%	1%
Adj. Flow (vph)	8	2	4	173	199	373
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	0	177	572	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

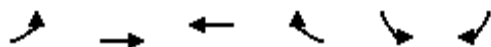
2017 Existing Traffic Volumes
3: Beekman Street/Beekman Street & W. Main Street

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0.2					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	7	2	3	144	165	310
Future Vol, veh/h	7	2	3	144	165	310
Conflicting Peds, #/hr	0	0	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	5	-	-	-1	-2	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	67	5	1	1
Mvmt Flow	8	2	4	173	199	373
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	568	387	573	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	181	-	-	-	-	-
Critical Hdwy	7.4	6.7	4.77	-	-	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.803	-	-	-
Pot Cap-1 Maneuver	416	631	745	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	813	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	413	630	745	-	-	-
Mov Cap-2 Maneuver	413	-	-	-	-	-
Stage 1	619	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Approach	SE	NE		SW		
HCM Control Delay, s	13.3	0.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR	
Capacity (veh/h)	745	-	447	-	-	
HCM Lane V/C Ratio	0.005	-	0.024	-	-	
HCM Control Delay (s)	9.9	0	13.3	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

2017 Existing Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak AM Hour
05/09/2017



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↰	↱
Traffic Volume (vph)	6	8	313	0	1	39
Future Volume (vph)	6	8	313	0	1	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		3%	-5%		-8%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.868	
Flt Protected		0.980			0.999	
Satd. Flow (prot)	0	1834	1928	0	1665	0
Flt Permitted		0.980			0.999	
Satd. Flow (perm)	0	1834	1928	0	1665	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	640		200	
Travel Time (s)		6.0	14.5		4.5	
Confl. Peds. (#/hr)	34			1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	1%	0%	0%	3%
Adj. Flow (vph)	7	10	382	0	1	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	17	382	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	0.95	0.95
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2017 Existing Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	8	313	0	1	39
Future Vol, veh/h	6	8	313	0	1	39
Conflicting Peds, #/hr	34	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-8	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	1	0	0	3
Mvmt Flow	7	10	382	0	1	48
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	416	0	-	0	440	416
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	4.1	-	-	-	4.8	5.43
Critical Hdwy Stg 1	-	-	-	-	3.8	-
Critical Hdwy Stg 2	-	-	-	-	3.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	1154	-	-	-	703	696
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	1015	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1154	-	-	-	660	676
Mov Cap-2 Maneuver	-	-	-	-	660	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	980	-
Approach	EB		WB		SB	
HCM Control Delay, s	3.5		0		10.7	
HCM LOS					B	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1154	-	-	-	676	
HCM Lane V/C Ratio	0.006	-	-	-	0.072	
HCM Control Delay (s)	8.1	0	-	-	10.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

2017 Existing Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	63	195	480	68	225	730
Future Volume (vph)	63	195	480	68	225	730
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	90	0		0	215	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.983			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1804	0	1778	1872
Flt Permitted	0.950				0.218	
Satd. Flow (perm)	1725	1544	1804	0	408	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	207		948			167
Travel Time (s)	4.7		21.5			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	212	522	74	245	793
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	212	596	0	245	793
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Minimum Split (s)	21.0	9.0	62.0		9.0	45.0
Total Split (s)	45.0	13.0	62.0		13.0	75.0
Total Split (%)	37.5%	10.8%	51.7%		10.8%	62.5%
Maximum Green (s)	40.0	8.0	57.0		8.0	70.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Walk Time (s)	5.0		5.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
v/c Ratio	0.12	0.31	0.70		0.74	0.73
Control Delay	28.6	23.3	30.1		28.6	23.0

2017 Existing Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

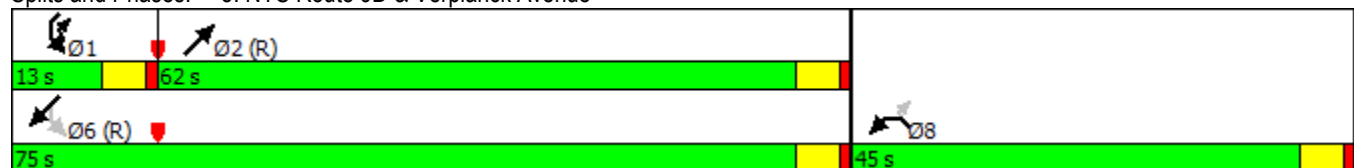
Weekday Peak AM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.6	23.3	30.1		28.6	23.0
Queue Length 50th (ft)	36	104	352		87	421
Queue Length 95th (ft)	71	164	490		#148	580
Internal Link Dist (ft)	127		868			87
Turn Bay Length (ft)	90				215	
Base Capacity (vph)	575	681	856		329	1092
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	0.12	0.31	0.70		0.74	0.73

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 95
 Control Type: Pretimed
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: NYS Route 9D & Verplanck Avenue



2017 Existing Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

								
Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	63	195	480	68	225	730		
Future Volume (veh/h)	63	195	480	68	225	730		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1816	1816	1835	1872	1872	1872		
Adj Flow Rate, veh/h	68	212	522	74	245	793		
Adj No. of Lanes	1	1	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	577	618	747	106	355	1092		
Arrive On Green	0.33	0.33	0.47	0.47	0.07	0.58		
Sat Flow, veh/h	1730	1544	1573	223	1783	1872		
Grp Volume(v), veh/h	68	212	0	596	245	793		
Grp Sat Flow(s),veh/h/ln	1730	1544	0	1795	1783	1872		
Q Serve(g_s), s	3.3	11.5	0.0	31.3	8.0	36.7		
Cycle Q Clear(g_c), s	3.3	11.5	0.0	31.3	8.0	36.7		
Prop In Lane	1.00	1.00		0.12	1.00			
Lane Grp Cap(c), veh/h	577	618	0	853	355	1092		
V/C Ratio(X)	0.12	0.34	0.00	0.70	0.69	0.73		
Avail Cap(c_a), veh/h	577	618	0	853	355	1092		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	27.8	25.0	0.0	24.8	21.3	18.1		
Incr Delay (d2), s/veh	0.4	1.5	0.0	4.7	10.5	4.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.6	5.1	0.0	16.5	4.5	20.2		
LnGrp Delay(d),s/veh	28.2	26.6	0.0	29.5	31.8	22.3		
LnGrp LOS	C	C		C	C	C		
Approach Vol, veh/h	280		596			1038		
Approach Delay, s/veh	26.9		29.5			24.5		
Approach LOS	C		C			C		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.0	62.0				75.0		45.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	8.0	57.0				70.0		40.0
Max Q Clear Time (g_c+I1), s	0.0	0.0				0.0		0.0
Green Ext Time (p_c), s	0.0	0.0				0.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			26.4					
HCM 2010 LOS			C					

2017 Existing Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

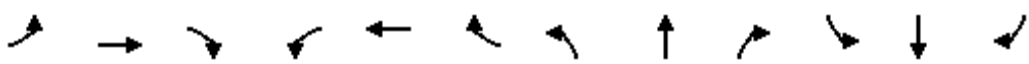
Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	4	116	3	15	10	11	409	0	1	346	414
Future Volume (vph)	131	4	116	3	15	10	11	409	0	1	346	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	80		0	85		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.950						0.918	
Flt Protected		0.954			0.995		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1849	0	1823	1919	0	1743	1684	0
Flt Permitted		0.710			0.969		0.172			0.449		
Satd. Flow (perm)	0	1309	1567	0	1800	0	330	1919	0	824	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			126		11						80	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			158			388			335	
Travel Time (s)		6.2			3.6			8.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	142	4	126	3	16	11	12	445	0	1	376	450
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	126	0	30	0	12	445	0	1	826	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	83		83	6		83	6	
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Size(ft)	20	43	43	20	43		43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40	40		40		40			40		
Detector 2 Size(ft)		43	43		43		43			43		
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0			0.0		
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	

2017 Existing Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak AM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	16.0		4.0	16.0	
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
v/c Ratio		0.56	0.31		0.08		0.03	0.38		0.00	0.79	
Control Delay		31.2	7.0		15.9		5.5	9.1		5.0	18.2	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay		31.2	7.0		15.9		5.5	9.5		5.0	18.2	
Queue Length 50th (ft)		46	0		5		1	63		0	152	
Queue Length 95th (ft)		112	39		27		8	214		2	#605	
Internal Link Dist (ft)		193			78			308			255	
Turn Bay Length (ft)			95				80			85		
Base Capacity (vph)		680	875		940		406	1161		638	1048	
Starvation Cap Reductn		0	0		0		0	308		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.21	0.14		0.03		0.03	0.52		0.00	0.79	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.6

Natural Cycle: 70

Control Type: Semi Act-Uncoord

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: NYS Route 9D & Beekman Street/W. Church Street

		
13 s	41 s	36 s
		
13 s	41 s	36 s

2017 Existing Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak AM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	4	116	3	15	10	11	409	0	1	346	414
Future Volume (veh/h)	131	4	116	3	15	10	11	409	0	1	346	414
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1844	1844	1995	1956	1995	1919	1919	0	1835	1835	1872
Adj Flow Rate, veh/h	142	4	126	3	16	11	12	445	0	1	376	450
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	327	6	241	74	167	102	268	1151	0	564	449	537
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.60	0.00	0.00	0.59	0.59
Sat Flow, veh/h	1370	39	1568	59	1087	664	1827	1919	0	1747	762	912
Grp Volume(v), veh/h	146	0	126	30	0	0	12	445	0	1	0	826
Grp Sat Flow(s),veh/h/ln	1409	0	1568	1810	0	0	1827	1919	0	1747	0	1674
Q Serve(g_s), s	5.0	0.0	4.5	0.0	0.0	0.0	0.2	7.4	0.0	0.0	0.0	24.5
Cycle Q Clear(g_c), s	5.9	0.0	4.5	0.9	0.0	0.0	0.2	7.4	0.0	0.0	0.0	24.5
Prop In Lane	0.97		1.00	0.10		0.37	1.00		0.00	1.00		0.54
Lane Grp Cap(c), veh/h	333	0	241	343	0	0	268	1151	0	564	0	985
V/C Ratio(X)	0.44	0.00	0.52	0.09	0.00	0.00	0.04	0.39	0.00	0.00	0.00	0.84
Avail Cap(c_a), veh/h	818	0	795	964	0	0	485	1151	0	790	0	985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	23.8	22.2	0.0	0.0	9.9	6.4	0.0	5.5	0.0	10.2
Incr Delay (d2), s/veh	0.9	0.0	1.7	0.1	0.0	0.0	0.1	1.0	0.0	0.0	0.0	8.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	2.1	0.4	0.0	0.0	0.1	4.1	0.0	0.0	0.0	13.3
LnGrp Delay(d),s/veh	25.2	0.0	25.5	22.4	0.0	0.0	10.0	7.4	0.0	5.5	0.0	18.7
LnGrp LOS	C		C	C			A	A		A		B
Approach Vol, veh/h		272			30			457			827	
Approach Delay, s/veh		25.4			22.4			7.4			18.7	
Approach LOS		C			C			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	41.7		14.4	5.7	41.0		14.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	9.4		7.9	2.2	26.5		2.9				
Green Ext Time (p_c), s	0.0	4.3		1.6	0.0	3.2		1.7				
Intersection Summary												
HCM 2010 Ctrl Delay			16.7									
HCM 2010 LOS			B									

2017 Existing Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	3	4	2	8	6	107	4	310	24	213	247	5
Future Volume (vph)	3	4	2	8	6	107	4	310	24	213	247	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	0		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970				0.850		0.989			0.997	
Flt Protected		0.984			0.973		0.950			0.950		
Satd. Flow (prot)	0	1769	0	0	1885	1647	1796	1870	0	1743	1829	0
Flt Permitted							0.591			0.517		
Satd. Flow (perm)	0	1798	0	0	1937	1647	1117	1870	0	949	1829	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		76			138			182			388	
Travel Time (s)		1.7			3.1			4.1			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	4	2	9	7	116	4	337	26	232	268	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	16	116	4	363	0	232	273	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83	83	83	6		83	6	
Trailing Detector (ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Position(ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Size(ft)	20	43		20	43	43	43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40			40	40	40			40		
Detector 2 Size(ft)		43			43	43	43			43		
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0			0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	

2017 Existing Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		8.0	8.0	4.0	4.0	31.0		4.0	36.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	36.0		9.0	41.0	
Total Split (s)	36.0	36.0		36.0	36.0	13.0	13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	14.4%	14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0		31.0	31.0	8.0	8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Max		None	Max	
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	11.0	11.0						11.0				
Pedestrian Calls (#/hr)	0	0						0				
v/c Ratio		0.05			0.06	0.40	0.00	0.30		0.25	0.16	
Control Delay		22.6			23.8	24.1	1.8	6.2		2.2	3.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		22.6			23.8	24.1	1.8	6.2		2.2	3.2	
Queue Length 50th (ft)		2			5	35	0	38		0	0	
Queue Length 95th (ft)		15			22	71	2	130		40	96	
Internal Link Dist (ft)		1			58			102			308	
Turn Bay Length (ft)						70				120		
Base Capacity (vph)		999			1075	300	977	1205		932	1660	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.01	0.39	0.00	0.30		0.25	0.16	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 56.3

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Splits and Phases: 7: NYS Route 9D & Beacon City Hall/Main Street

 Ø2	 Ø1	 Ø4
41 s	13 s	36 s
 Ø6	 Ø5	 Ø8
41 s	13 s	36 s

2017 Existing Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	2	8	6	107	4	310	24	213	247	5
Future Volume (veh/h)	3	4	2	8	6	107	4	310	24	213	247	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1853	1890	1976	1937	1937	1891	1891	1928	1835	1835	1872
Adj Flow Rate, veh/h	3	4	2	9	7	116	4	337	26	232	268	5
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	115	43	177	113	297	794	1003	77	702	1039	19
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.58	0.58	0.06	0.58	0.58
Sat Flow, veh/h	298	984	366	734	963	1647	1801	1733	134	1747	1795	33
Grp Volume(v), veh/h	9	0	0	16	0	116	4	0	363	232	0	273
Grp Sat Flow(s),veh/h/ln	1648	0	0	1698	0	1647	1801	0	1867	1747	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	4.6
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.5	0.0	0.0	0.0	0.0	6.3	0.0	0.0	4.6
Prop In Lane	0.33		0.22	0.56		1.00	1.00		0.07	1.00		0.02
Lane Grp Cap(c), veh/h	270	0	0	290	0	297	794	0	1080	702	0	1058
V/C Ratio(X)	0.03	0.00	0.00	0.06	0.00	0.39	0.01	0.00	0.34	0.33	0.00	0.26
Avail Cap(c_a), veh/h	860	0	0	913	0	924	911	0	1080	817	0	1058
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	0.0	0.0	24.4	0.0	22.5	5.8	0.0	6.9	8.6	0.0	6.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.8	0.0	0.0	0.8	0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.3	0.0	1.8	0.0	0.0	3.5	2.4	0.0	2.4
LnGrp Delay(d),s/veh	24.4	0.0	0.0	24.5	0.0	23.3	5.8	0.0	7.7	8.9	0.0	7.1
LnGrp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		9			132			367			505	
Approach Delay, s/veh		24.4			23.5			7.7			7.9	
Approach LOS		C			C			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	41.0		12.3	8.9	41.0		12.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	8.3		2.3	2.0	6.6		2.5				
Green Ext Time (p_c), s	0.6	0.9		0.7	0.6	0.6		0.7				
Intersection Summary												
HCM 2010 Ctrl Delay				10.0								
HCM 2010 LOS				A								

2017 Existing Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak AM Hour
05/09/2017

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	6	40	0
Future Volume (vph)	0	0	0	6	40	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	10%			10%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Friction						
Flt Protected						
Satd. Flow (prot)	1805	0	0	1805	1937	0
Flt Permitted						
Satd. Flow (perm)	1805	0	0	1805	1937	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	206			200	796	
Travel Time (s)	4.7			4.5	18.1	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%
Adj. Flow (vph)	0	0	0	7	49	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	7	49	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.07	1.07	0.94	0.94
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2017 Existing Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	6	40	0
Future Vol, veh/h	0	0	0	6	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	10	-10	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	3	0
Mvmt Flow	0	0	0	7	49	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	56	49	49	0	-	0
Stage 1	49	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	8.4	7.2	4.1	-	-	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	927	1011	1571	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	927	1011	1571	-	-	-
Mov Cap-2 Maneuver	927	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1571	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

2017 Existing Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak AM Hour
 05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	36	0	0	37	0	0
Future Volume (vph)	36	0	0	37	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	3%			-5%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1817	0	0	1837	1900	0
Flt Permitted						
Satd. Flow (perm)	1817	0	0	1837	1900	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			236	134	
Travel Time (s)	3.6			5.4	3.0	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	3%	0%	5%	6%	0%	3%
Adj. Flow (vph)	44	0	0	45	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	44	0	0	45	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2017 Existing Traffic Volumes
9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	
Traffic Vol, veh/h	36	0	0	37	0	0
Future Vol, veh/h	36	0	0	37	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	3	-	-	-5	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	3	0	5	6	0	3
Mvmt Flow	44	0	0	45	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	89	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	45	-
Critical Hdwy	-	-	-	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	-	0	0	-	917	1023
Stage 1	-	0	0	-	984	-
Stage 2	-	0	0	-	983	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	917	1023
Mov Cap-2 Maneuver	-	-	-	-	917	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	983	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	-	-	-			
HCM Lane V/C Ratio	-	-	-			
HCM Control Delay (s)	0	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	-	-	-			

2017 Existing Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak PM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	5	25	6	3	9	10	633	3	3	580	51
Future Volume (vph)	19	5	25	6	3	9	10	633	3	3	580	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			-1%			0%				-5%
Storage Length (ft)	0		0	0		0	120		0	120		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.931			0.932			0.999			0.988	
Flt Protected		0.981			0.984		0.950			0.950		
Satd. Flow (prot)	0	1726	0	0	1660	0	1641	1825	0	1850	1886	0
Flt Permitted		0.981			0.984		0.950			0.950		
Satd. Flow (perm)	0	1726	0	0	1660	0	1641	1825	0	1850	1886	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		833			226			335			948	
Travel Time (s)		18.9			5.1			7.6			21.5	
Confl. Peds. (#/hr)	2		3	2		3	5			5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	4%	0%	0%	11%	10%	4%	0%	0%	2%	2%
Adj. Flow (vph)	20	5	26	6	3	9	11	666	3	3	611	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	51	0	0	18	0	11	669	0	3	665	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	0.97	0.97	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

2017 Existing Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak PM Hour
05/09/2017

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	19	5	25	6	3	9	10	633	3	3	580	51
Future Vol, veh/h	19	5	25	6	3	9	10	633	3	3	580	51
Conflicting Peds, #/hr	2	0	3	2	0	3	5	0	0	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	-1	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	4	0	0	11	10	4	0	0	2	2
Mvmt Flow	20	5	26	6	3	9	11	666	3	3	611	54
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1347	1345	645	1356	1370	676	669	0	0	674	0	0
Stage 1	649	649	-	694	694	-	-	-	-	-	-	-
Stage 2	698	696	-	662	676	-	-	-	-	-	-	-
Critical Hdwy	6.5	5.9	5.94	6.9	6.3	6.21	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.399	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	162	191	495	138	159	446	884	-	-	927	-	-
Stage 1	515	522	-	454	465	-	-	-	-	-	-	-
Stage 2	488	501	-	471	473	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	154	186	492	127	155	443	882	-	-	925	-	-
Mov Cap-2 Maneuver	291	315	-	257	280	-	-	-	-	-	-	-
Stage 1	506	518	-	446	457	-	-	-	-	-	-	-
Stage 2	467	493	-	439	470	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	16.3			16.5			0.1			0		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	882	-	-	371	331	925	-	-				
HCM Lane V/C Ratio	0.012	-	-	0.139	0.057	0.003	-	-				
HCM Control Delay (s)	9.1	-	-	16.3	16.5	8.9	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-	-				

2017 Existing Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	42	1	14	50	1	7
Future Volume (vph)	42	1	14	50	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-2%			1%	7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.997				0.880	
Flt Protected				0.989	0.994	
Satd. Flow (prot)	1913	0	0	1788	1604	0
Flt Permitted				0.989	0.994	
Satd. Flow (perm)	1913	0	0	1788	1604	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	236			833	796	
Travel Time (s)	5.4			18.9	18.1	
Confl. Peds. (#/hr)						3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	10%	3%	0%	0%
Adj. Flow (vph)	47	1	16	56	1	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	0	0	72	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.01	1.01	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2017 Existing Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	42	1	14	50	1	7
Future Vol, veh/h	42	1	14	50	1	7
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	1	7	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	10	3	0	0
Mvmt Flow	47	1	16	56	1	8
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	48	0	134	50
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	87	-
Critical Hdwy	-	-	4.2	-	7.8	6.9
Critical Hdwy Stg 1	-	-	-	-	6.8	-
Critical Hdwy Stg 2	-	-	-	-	6.8	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1509	-	821	1014
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	910	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1505	-	812	1011
Mov Cap-2 Maneuver	-	-	-	-	812	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	900	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.6		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	981	-	-	1505	-	
HCM Lane V/C Ratio	0.009	-	-	0.01	-	
HCM Control Delay (s)	8.7	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

2017 Existing Traffic Volumes
3: Beekman Street/Beekman Street & W. Main Street

Weekday Peak PM Hour
05/09/2017



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	27	2	8	294	58	63
Future Volume (vph)	27	2	8	294	58	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%			-1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990				0.930	
Flt Protected	0.956			0.999		
Satd. Flow (prot)	1753	0	0	1877	1715	0
Flt Permitted	0.956			0.999		
Satd. Flow (perm)	1753	0	0	1877	1715	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	640			321	353	
Travel Time (s)	14.5			7.3	8.0	
Peak Hour Factor	0.53	0.53	0.53	0.53	0.53	0.53
Heavy Vehicles (%)	0%	0%	25%	1%	2%	6%
Adj. Flow (vph)	51	4	15	555	109	119
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	0	570	228	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

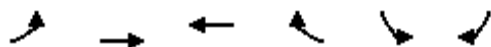
2017 Existing Traffic Volumes
3: Beekman Street/Beekman Street & W. Main Street

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	1.3					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	27	2	8	294	58	63
Future Vol, veh/h	27	2	8	294	58	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	5	-	-	-1	-2	-
Peak Hour Factor	53	53	53	53	53	53
Heavy Vehicles, %	0	0	25	1	2	6
Mvmt Flow	51	4	15	555	109	119
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	754	169	228	0	-	0
Stage 1	169	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	7.4	6.7	4.35	-	-	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	308	860	1216	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	477	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	302	860	1216	-	-	-
Mov Cap-2 Maneuver	302	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Approach	SE	NE		SW		
HCM Control Delay, s	18.8	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR	
Capacity (veh/h)	1216	-	316	-	-	
HCM Lane V/C Ratio	0.012	-	0.173	-	-	
HCM Control Delay (s)	8	0	18.8	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.6	-	-	

2017 Existing Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak PM Hour
05/09/2017



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	28	67	4	1	14
Future Volume (vph)	3	28	67	4	1	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		3%	-5%		-8%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.992		0.872	
Flt Protected		0.995			0.997	
Satd. Flow (prot)	0	1862	1765	0	1718	0
Flt Permitted		0.995			0.997	
Satd. Flow (perm)	0	1862	1765	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	640		200	
Travel Time (s)		6.0	14.5		4.5	
Confl. Peds. (#/hr)	15					
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	10%	0%	0%	0%
Adj. Flow (vph)	4	35	84	5	1	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	39	89	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	0.95	0.95
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2017 Existing Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	28	67	4	1	14
Future Vol, veh/h	3	28	67	4	1	14
Conflicting Peds, #/hr	15	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-8	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	10	0	0	0
Mvmt Flow	4	35	84	5	1	18
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	104	0	-	0	144	101
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	43	-
Critical Hdwy	4.1	-	-	-	4.8	5.4
Critical Hdwy Stg 1	-	-	-	-	3.8	-
Critical Hdwy Stg 2	-	-	-	-	3.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1500	-	-	-	910	982
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	1004	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1500	-	-	-	885	970
Mov Cap-2 Maneuver	-	-	-	-	885	-
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	988	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.7		0		8.8	
HCM LOS					A	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1500	-	-	-	964	
HCM Lane V/C Ratio	0.003	-	-	-	0.019	
HCM Control Delay (s)	7.4	0	-	-	8.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

2017 Existing Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	40	44	599	62	197	570
Future Volume (vph)	40	44	599	62	197	570
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	90	0		0	215	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.987			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1811	0	1778	1872
Flt Permitted	0.950				0.194	
Satd. Flow (perm)	1725	1544	1811	0	363	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	207		948			167
Travel Time (s)	4.7		21.5			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	48	651	67	214	620
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	48	718	0	214	620
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Minimum Split (s)	21.0	9.0	62.0		9.0	45.0
Total Split (s)	35.0	14.0	71.0		14.0	85.0
Total Split (%)	29.2%	11.7%	59.2%		11.7%	70.8%
Maximum Green (s)	30.0	9.0	66.0		9.0	80.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Walk Time (s)	5.0		5.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
v/c Ratio	0.10	0.08	0.72		0.61	0.50
Control Delay	35.5	25.5	25.3		15.6	11.7

2017 Existing Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	35.5	25.5	25.3		15.6	11.7
Queue Length 50th (ft)	26	24	397		57	219
Queue Length 95th (ft)	57	52	550		89	302
Internal Link Dist (ft)	127		868			87
Turn Bay Length (ft)	90				215	
Base Capacity (vph)	431	566	996		348	1248
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	0.10	0.08	0.72		0.61	0.50

Intersection Summary

Area Type: Other

Cycle Length: 120

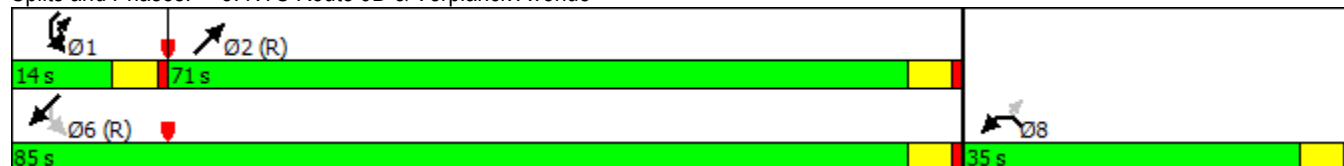
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green

Natural Cycle: 95

Control Type: Pretimed

Splits and Phases: 5: NYS Route 9D & Verplanck Avenue



2017 Existing Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

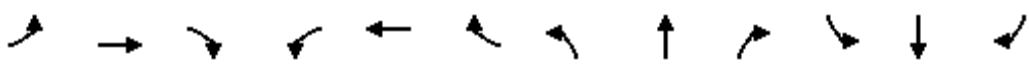
Weekday Peak PM Hour
05/09/2017

								
Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	40	44	599	62	197	570		
Future Volume (veh/h)	40	44	599	62	197	570		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1816	1816	1835	1872	1872	1872		
Adj Flow Rate, veh/h	43	48	651	67	214	620		
Adj No. of Lanes	1	1	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	432	502	900	93	379	1248		
Arrive On Green	0.25	0.25	0.55	0.55	0.08	0.67		
Sat Flow, veh/h	1730	1544	1637	168	1783	1872		
Grp Volume(v), veh/h	43	48	0	718	214	620		
Grp Sat Flow(s),veh/h/ln	1730	1544	0	1805	1783	1872		
Q Serve(g_s), s	2.3	2.6	0.0	35.7	5.9	19.8		
Cycle Q Clear(g_c), s	2.3	2.6	0.0	35.7	5.9	19.8		
Prop In Lane	1.00	1.00		0.09	1.00			
Lane Grp Cap(c), veh/h	432	502	0	993	379	1248		
V/C Ratio(X)	0.10	0.10	0.00	0.72	0.56	0.50		
Avail Cap(c_a), veh/h	432	502	0	993	379	1248		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	34.6	28.2	0.0	20.2	17.1	10.0		
Incr Delay (d2), s/veh	0.5	0.4	0.0	4.6	6.0	1.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.2	1.2	0.0	19.0	3.7	10.7		
LnGrp Delay(d),s/veh	35.1	28.6	0.0	24.7	23.1	11.4		
LnGrp LOS	D	C		C	C	B		
Approach Vol, veh/h	91		718			834		
Approach Delay, s/veh	31.7		24.7			14.4		
Approach LOS	C		C			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.0	71.0				85.0		35.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	9.0	66.0				80.0		30.0
Max Q Clear Time (g_c+I1), s	0.0	0.0				0.0		0.0
Green Ext Time (p_c), s	0.0	0.0				0.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			19.9					
HCM 2010 LOS			B					

2017 Existing Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

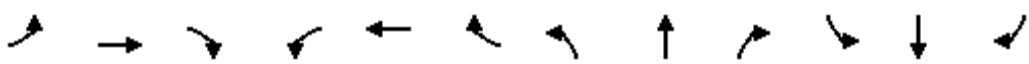
Weekday Peak PM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	5	31	11	3	6	30	350	10	11	496	104
Future Volume (vph)	290	5	31	11	3	6	30	350	10	11	496	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	80		0	85		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.957			0.996			0.974	
Flt Protected		0.953			0.973		0.950			0.950		
Satd. Flow (prot)	0	1757	1567	0	1821	0	1823	1911	0	1743	1787	0
Flt Permitted		0.713			0.823		0.203			0.486		
Satd. Flow (perm)	0	1315	1567	0	1540	0	389	1911	0	892	1787	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		7			2			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			158			388			335	
Travel Time (s)		6.2			3.6			8.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	315	5	34	12	3	7	33	380	11	12	539	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	320	34	0	22	0	33	391	0	12	652	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												Yes
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	83		83	6		83	6	
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Size(ft)	20	43	43	20	43		43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40	40		40		40			40		
Detector 2 Size(ft)		43	43		43		43			43		
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0			0.0		
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	

2017 Existing Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	16.0		4.0	16.0	
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
v/c Ratio		0.81	0.06		0.05		0.10	0.38		0.02	0.75	
Control Delay		42.7	0.2		15.9		9.7	13.8		9.5	26.5	
Queue Delay		0.0	0.0		0.0		0.0	0.9		0.0	0.0	
Total Delay		42.7	0.2		15.9		9.7	14.7		9.5	26.5	
Queue Length 50th (ft)		151	0		5		7	99		2	282	
Queue Length 95th (ft)		#255	0		22		21	240		11	#547	
Internal Link Dist (ft)		193			78			308			255	
Turn Bay Length (ft)			95				80			85		
Base Capacity (vph)		547	701		645		371	1034		572	871	
Starvation Cap Reductn		0	0		0		0	377		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.59	0.05		0.03		0.09	0.60		0.02	0.75	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 76.7

Natural Cycle: 60

Control Type: Semi Act-Uncoord

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: NYS Route 9D & Beekman Street/W. Church Street

		
13 s	41 s	36 s
		
13 s	41 s	36 s

2017 Existing Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

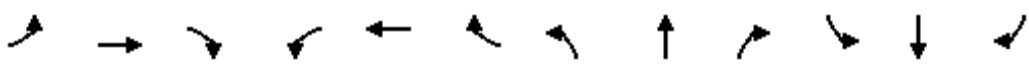
Weekday Peak PM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	5	31	11	3	6	30	350	10	11	496	104
Future Volume (veh/h)	290	5	31	11	3	6	30	350	10	11	496	104
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1844	1844	1995	1956	1995	1919	1919	1957	1835	1835	1872
Adj Flow Rate, veh/h	315	5	34	12	3	7	33	380	11	12	539	113
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	443	6	534	102	34	31	239	856	25	424	658	138
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.03	0.46	0.46	0.01	0.45	0.45
Sat Flow, veh/h	1039	16	1568	96	101	92	1827	1855	54	1747	1472	309
Grp Volume(v), veh/h	320	0	34	22	0	0	33	0	391	12	0	652
Grp Sat Flow(s),veh/h/ln	1055	0	1568	289	0	0	1827	0	1909	1747	0	1780
Q Serve(g_s), s	0.0	0.0	1.2	0.3	0.0	0.0	0.8	0.0	11.2	0.3	0.0	25.7
Cycle Q Clear(g_c), s	24.4	0.0	1.2	24.7	0.0	0.0	0.8	0.0	11.2	0.3	0.0	25.7
Prop In Lane	0.98		1.00	0.55		0.32	1.00		0.03	1.00		0.17
Lane Grp Cap(c), veh/h	448	0	534	167	0	0	239	0	880	424	0	796
V/C Ratio(X)	0.71	0.00	0.06	0.13	0.00	0.00	0.14	0.00	0.44	0.03	0.00	0.82
Avail Cap(c_a), veh/h	510	0	603	236	0	0	373	0	880	577	0	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.5	0.0	17.9	20.9	0.0	0.0	15.7	0.0	14.7	12.5	0.0	19.4
Incr Delay (d2), s/veh	4.0	0.0	0.0	0.4	0.0	0.0	0.3	0.0	1.6	0.0	0.0	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	0.5	0.3	0.0	0.0	0.4	0.0	6.3	0.1	0.0	14.5
LnGrp Delay(d),s/veh	29.6	0.0	17.9	21.3	0.0	0.0	15.9	0.0	16.3	12.5	0.0	28.7
LnGrp LOS	C		B	C			B		B	B		C
Approach Vol, veh/h		354			22			424			664	
Approach Delay, s/veh		28.4			21.3			16.3			28.4	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	42.1		32.5	7.1	41.0		32.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.3	13.2		26.4	2.8	27.7		26.7				
Green Ext Time (p_c), s	0.0	3.0		0.8	0.0	2.2		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			24.8									
HCM 2010 LOS			C									

2017 Existing Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	7	1	16	2	128	1	262	37	226	307	1
Future Volume (vph)	1	7	1	16	2	128	1	262	37	226	307	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	0		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986				0.850		0.982				
Flt Protected		0.995			0.957		0.950			0.950		
Satd. Flow (prot)	0	1818	0	0	1854	1647	1796	1857	0	1743	1835	0
Flt Permitted							0.559			0.547		
Satd. Flow (perm)	0	1827	0	0	1937	1647	1057	1857	0	1004	1835	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		76			138			182			388	
Travel Time (s)		1.7			3.1			4.1			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	8	1	17	2	139	1	285	40	246	334	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	19	139	1	325	0	246	335	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83	83	83	6		83	6	
Trailing Detector (ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Position(ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Size(ft)	20	43		20	43	43	43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40			40	40	40			40		
Detector 2 Size(ft)		43			43	43	43			43		
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0			0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	

2017 Existing Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		8.0	8.0	4.0	4.0	31.0		4.0	36.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	36.0		9.0	41.0	
Total Split (s)	36.0	36.0		36.0	36.0	13.0	13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	14.4%	14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0		31.0	31.0	8.0	8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Max		None	Max	
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	11.0	11.0						11.0				
Pedestrian Calls (#/hr)	0	0						0				
v/c Ratio		0.05			0.07	0.48	0.00	0.27		0.26	0.20	
Control Delay		23.8			23.9	25.9	2.0	6.0		2.2	3.3	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		23.8			23.9	25.9	2.0	6.0		2.2	3.3	
Queue Length 50th (ft)		3			5	42	0	33		0	0	
Queue Length 95th (ft)		16			25	83	1	115		42	120	
Internal Link Dist (ft)		1			58			102			308	
Turn Bay Length (ft)						70				120		
Base Capacity (vph)		1013			1073	299	936	1195		970	1665	
Starvation Cap Reductn		0			0	0	0	0		0	82	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.02	0.46	0.00	0.27		0.25	0.21	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 56.4

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Splits and Phases: 7: NYS Route 9D & Beacon City Hall/Main Street

 Ø2	 Ø1	 Ø4
41 s	13 s	36 s
 Ø6	 Ø5	 Ø8
41 s	13 s	36 s

2017 Existing Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	7	1	16	2	128	1	262	37	226	307	1
Future Volume (veh/h)	1	7	1	16	2	128	1	262	37	226	307	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1853	1890	1976	1937	1937	1891	1891	1928	1835	1835	1872
Adj Flow Rate, veh/h	1	8	1	17	2	139	1	285	40	246	334	1
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	188	22	266	26	303	737	935	131	728	1053	3
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.58	0.58	0.06	0.58	0.58
Sat Flow, veh/h	57	1557	179	1299	213	1647	1801	1623	228	1747	1828	5
Grp Volume(v), veh/h	10	0	0	19	0	139	1	0	325	246	0	335
Grp Sat Flow(s),veh/h/ln	1793	0	0	1512	0	1647	1801	0	1850	1747	0	1834
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.8	0.0	0.0	5.6	0.0	0.0	5.9
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.6	0.0	0.8	0.0	0.0	5.6	0.0	0.0	5.9
Prop In Lane	0.10		0.10	0.89		1.00	1.00		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	280	0	0	292	0	303	737	0	1066	728	0	1056
V/C Ratio(X)	0.04	0.00	0.00	0.07	0.00	0.46	0.00	0.00	0.30	0.34	0.00	0.32
Avail Cap(c_a), veh/h	931	0	0	853	0	920	854	0	1066	841	0	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	0.0	24.4	0.0	22.7	6.5	0.0	6.8	8.4	0.0	6.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	1.1	0.0	0.0	0.7	0.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.3	0.0	0.4	0.0	0.0	3.1	2.5	0.0	3.2
LnGrp Delay(d),s/veh	24.3	0.0	0.0	24.5	0.0	23.8	6.5	0.0	7.6	8.6	0.0	7.7
LnGrp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		10			158			326			581	
Approach Delay, s/veh		24.3			23.9			7.6			8.1	
Approach LOS		C			C			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	41.0		12.6	8.9	41.0		12.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	7.6		2.3	2.0	7.9		2.8				
Green Ext Time (p_c), s	0.6	0.8		0.9	0.6	0.8		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay				10.4								
HCM 2010 LOS				B								

2017 Existing Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak PM Hour
05/09/2017

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	7	15	0
Future Volume (vph)	0	0	0	7	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	10%			10%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1805	0	0	1805	1995	0
Flt Permitted						
Satd. Flow (perm)	1805	0	0	1805	1995	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	206			200	796	
Travel Time (s)	4.7			4.5	18.1	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	0	0	9	19	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	9	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.07	1.07	0.94	0.94
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2017 Existing Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	7	15	0
Future Vol, veh/h	0	0	0	7	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	10	-10	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	9	19	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	28	19	19	0	-	0
Stage 1	19	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	8.4	7.2	4.1	-	-	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	977	1059	1611	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	977	1059	1611	-	-	-
Mov Cap-2 Maneuver	977	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1611	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

2017 Existing Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak PM Hour
 05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	43	0	0	64	0	0
Future Volume (vph)	43	0	0	64	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	3%			-5%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1872	0	0	1909	1900	0
Flt Permitted						
Satd. Flow (perm)	1872	0	0	1909	1900	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			236	134	
Travel Time (s)	3.6			5.4	3.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	2%	0%	0%
Adj. Flow (vph)	48	0	0	71	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	0	0	71	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2017 Existing Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak PM Hour
 05/09/2017

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	
Traffic Vol, veh/h	43	0	0	64	0	0
Future Vol, veh/h	43	0	0	64	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	3	-	-	-5	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	48	0	0	71	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	119	48
Stage 1	-	-	-	-	48	-
Stage 2	-	-	-	-	71	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	0	-	882	1027
Stage 1	-	0	0	-	980	-
Stage 2	-	0	0	-	957	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	882	1027
Mov Cap-2 Maneuver	-	-	-	-	882	-
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	957	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	-	-	-			
HCM Lane V/C Ratio	-	-	-			
HCM Control Delay (s)	0	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	-	-	-			

2022 No-Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	9	9	1	4	4	10	682	1	1	895	67
Future Volume (vph)	25	9	9	1	4	4	10	682	1	1	895	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			-1%			0%			-5%	
Storage Length (ft)	0		0	0		0	120		0	120		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.972			0.939						0.990	
Flt Protected		0.971			0.995		0.950			0.950		
Satd. Flow (prot)	0	1820	0	0	1784	0	1543	1810	0	1850	1834	0
Flt Permitted		0.971			0.995		0.950			0.950		
Satd. Flow (perm)	0	1820	0	0	1784	0	1543	1810	0	1850	1834	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		833			226			335			948	
Travel Time (s)		18.9			5.1			7.6			21.5	
Confl. Peds. (#/hr)	3			3			2			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%	0%	0%	0%	0%	0%	17%	5%	0%	0%	5%	7%
Adj. Flow (vph)	29	10	10	1	5	5	11	784	1	1	1029	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	11	0	11	785	0	1	1106	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	0.97	0.97	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

2022 No-Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour
05/09/2017

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	9	9	1	4	4	10	682	1	1	895	67
Future Vol, veh/h	25	9	9	1	4	4	10	682	1	1	895	67
Conflicting Peds, #/hr	3	0	0	3	0	0	2	0	0	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	-1	-	-	0	-	-	-5	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	17	5	0	0	5	7
Mvmt Flow	29	10	10	1	5	5	11	784	1	1	1029	77
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1887	1882	1072	1892	1919	789	1108	0	0	787	0	0
Stage 1	1072	1072	-	809	809	-	-	-	-	-	-	-
Stage 2	815	810	-	1083	1110	-	-	-	-	-	-	-
Critical Hdwy	6.5	5.9	5.9	6.9	6.3	6.1	4.27	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.353	-	-	2.2	-	-
Pot Cap-1 Maneuver	74	98	296	60	76	403	578	-	-	841	-	-
Stage 1	322	358	-	395	415	-	-	-	-	-	-	-
Stage 2	429	453	-	282	306	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	70	96	295	55	74	401	577	-	-	839	-	-
Mov Cap-2 Maneuver	194	224	-	163	188	-	-	-	-	-	-	-
Stage 1	315	357	-	387	406	-	-	-	-	-	-	-
Stage 2	410	444	-	263	305	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	26.7			20.6			0.2			0		
HCM LOS	D			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	577	-	-	215	241	839	-	-				
HCM Lane V/C Ratio	0.02	-	-	0.23	0.043	0.001	-	-				
HCM Control Delay (s)	11.4	-	-	26.7	20.6	9.3	-	-				
HCM Lane LOS	B	-	-	D	C	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.1	0	-	-				

2022 No-Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	26	2	42	43	0	4
Future Volume (vph)	26	2	42	43	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-2%			1%	7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992				0.865	
Flt Protected				0.976		
Satd. Flow (prot)	1802	0	0	1748	1586	0
Flt Permitted				0.976		
Satd. Flow (perm)	1802	0	0	1748	1586	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	236			833	796	
Travel Time (s)	5.4			18.9	18.1	
Confl. Peds. (#/hr)			2			1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	0%	0%	11%	0%	0%
Adj. Flow (vph)	32	2	51	52	0	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	0	103	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.01	1.01	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 No-Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	2.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	26	2	42	43	0	4
Future Vol, veh/h	26	2	42	43	0	4
Conflicting Peds, #/hr	0	0	2	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	1	7	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	0	0	11	0	0
Mvmt Flow	32	2	51	52	0	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	36	0	190	36
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	155	-
Critical Hdwy	-	-	4.1	-	7.8	6.9
Critical Hdwy Stg 1	-	-	-	-	6.8	-
Critical Hdwy Stg 2	-	-	-	-	6.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1588	-	746	1035
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	827	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1587	-	720	1032
Mov Cap-2 Maneuver	-	-	-	-	720	-
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	800	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.6		8.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1032	-	-	1587	-	
HCM Lane V/C Ratio	0.005	-	-	0.032	-	
HCM Control Delay (s)	8.5	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.1	-	

2022 No-Build Traffic Volumes

Weekday Peak AM Hour

3: Beekman Street/Beekman Street & The Views Development/W. Main Street

05/09/2017

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	0	2	0	4	15	3	160	1	4	182	350
Future Volume (vph)	8	0	2	0	4	15	3	160	1	4	182	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		5%			0%			-1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.977			0.892			0.999			0.912	
Flt Protected		0.960						0.999				
Satd. Flow (prot)	0	1737	0	0	1662	0	0	1794	0	0	1733	0
Flt Permitted		0.960						0.999				
Satd. Flow (perm)	0	1737	0	0	1662	0	0	1794	0	0	1733	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			137			321			353	
Travel Time (s)		14.5			3.1			7.3			8.0	
Confl. Peds. (#/hr)							1					
Peak Hour Factor	0.83	0.92	0.83	0.92	0.92	0.92	0.83	0.83	0.92	0.92	0.83	0.83
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	67%	5%	2%	2%	1%	1%
Adj. Flow (vph)	10	0	2	0	4	16	4	193	1	4	219	422
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	20	0	0	198	0	0	645	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection

Int Delay, s/veh 0.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	8	0	2	0	4	15	3	160	1	4	182	350
Future Vol, veh/h	8	0	2	0	4	15	3	160	1	4	182	350
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	83	92	83	92	92	92	83	83	92	92	83	83
Heavy Vehicles, %	0	2	0	2	2	2	67	5	2	2	1	1
Mvmt Flow	10	0	2	0	4	16	4	193	1	4	219	422

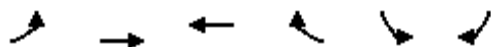
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	651	641	431	641	852	193	642	0	0	194	0	0
Stage 1	440	440	-	201	201	-	-	-	-	-	-	-
Stage 2	211	201	-	440	651	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.52	6.7	7.12	6.52	6.22	4.77	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	6.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.803	-	-	2.218	-	-
Pot Cap-1 Maneuver	321	329	592	388	297	849	697	-	-	1379	-	-
Stage 1	531	511	-	801	735	-	-	-	-	-	-	-
Stage 2	750	695	-	596	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	308	325	592	383	293	849	697	-	-	1379	-	-
Mov Cap-2 Maneuver	308	325	-	383	293	-	-	-	-	-	-	-
Stage 1	527	508	-	796	731	-	-	-	-	-	-	-
Stage 2	727	691	-	591	462	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	15.9	11.1	0.2	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	697	-	-	607	341	1379	-
HCM Lane V/C Ratio	0.005	-	-	0.034	0.035	0.003	-
HCM Control Delay (s)	10.2	0	-	11.1	15.9	7.6	0
HCM Lane LOS	B	A	-	B	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

2022 No-Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak AM Hour
05/09/2017



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	9	357	0	1	43
Future Volume (vph)	7	9	357	0	1	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		3%	-5%		-8%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.868	
Flt Protected		0.978			0.999	
Satd. Flow (prot)	0	1830	1928	0	1664	0
Flt Permitted		0.978			0.999	
Satd. Flow (perm)	0	1830	1928	0	1664	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	640		200	
Travel Time (s)		6.0	14.5		4.5	
Confl. Peds. (#/hr)	34			1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	1%	0%	0%	3%
Adj. Flow (vph)	9	11	435	0	1	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	20	435	0	53	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	0.95	0.95
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 No-Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	9	357	0	1	43
Future Vol, veh/h	7	9	357	0	1	43
Conflicting Peds, #/hr	34	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-8	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	1	0	0	3
Mvmt Flow	9	11	435	0	1	52
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	469	0	-	0	497	469
Stage 1	-	-	-	-	469	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	4.1	-	-	-	4.8	5.43
Critical Hdwy Stg 1	-	-	-	-	3.8	-
Critical Hdwy Stg 2	-	-	-	-	3.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	1103	-	-	-	669	657
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1103	-	-	-	627	638
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	975	-
Approach	EB		WB		SB	
HCM Control Delay, s	3.6		0		11.2	
HCM LOS					B	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1103	-	-	-	638	
HCM Lane V/C Ratio	0.008	-	-	-	0.084	
HCM Control Delay (s)	8.3	0	-	-	11.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

2022 No-Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	69	215	615	75	248	871
Future Volume (vph)	69	215	615	75	248	871
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	90	0		0	215	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.985			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1807	0	1778	1872
Flt Permitted	0.950				0.104	
Satd. Flow (perm)	1725	1544	1807	0	195	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	207		948			167
Travel Time (s)	4.7		21.5			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	234	668	82	270	947
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	234	750	0	270	947
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Minimum Split (s)	21.0	9.0	62.0		9.0	45.0
Total Split (s)	45.0	13.0	62.0		13.0	75.0
Total Split (%)	37.5%	10.8%	51.7%		10.8%	62.5%
Maximum Green (s)	40.0	8.0	57.0		8.0	70.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Walk Time (s)	5.0		5.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
v/c Ratio	0.13	0.34	0.87		1.23	0.87
Control Delay	28.7	23.9	41.2		159.3	31.4

2022 No-Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.7	23.9	41.2		159.3	31.4
Queue Length 50th (ft)	40	117	508		~176	586
Queue Length 95th (ft)	77	181	#754		#350	#838
Internal Link Dist (ft)	127		868			87
Turn Bay Length (ft)	90				215	
Base Capacity (vph)	575	681	858		219	1092
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	0.34	0.87		1.23	0.87

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 95
 Control Type: Pretimed
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: NYS Route 9D & Verplanck Avenue



2022 No-Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

								
Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	69	215	615	75	248	871		
Future Volume (veh/h)	69	215	615	75	248	871		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1816	1816	1835	1872	1872	1872		
Adj Flow Rate, veh/h	75	234	668	82	270	947		
Adj No. of Lanes	1	1	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	577	618	762	93	250	1092		
Arrive On Green	0.33	0.33	0.47	0.47	0.07	0.58		
Sat Flow, veh/h	1730	1544	1603	197	1783	1872		
Grp Volume(v), veh/h	75	234	0	750	270	947		
Grp Sat Flow(s),veh/h/ln	1730	1544	0	1800	1783	1872		
Q Serve(g_s), s	3.6	12.9	0.0	45.0	8.0	51.2		
Cycle Q Clear(g_c), s	3.6	12.9	0.0	45.0	8.0	51.2		
Prop In Lane	1.00	1.00		0.11	1.00			
Lane Grp Cap(c), veh/h	577	618	0	855	250	1092		
V/C Ratio(X)	0.13	0.38	0.00	0.88	1.08	0.87		
Avail Cap(c_a), veh/h	577	618	0	855	250	1092		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	27.9	25.5	0.0	28.3	28.4	21.1		
Incr Delay (d2), s/veh	0.5	1.8	0.0	12.3	79.6	9.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.8	5.8	0.0	25.2	5.5	29.1		
LnGrp Delay(d),s/veh	28.3	27.2	0.0	40.6	107.9	30.4		
LnGrp LOS	C	C		D	F	C		
Approach Vol, veh/h	309		750			1217		
Approach Delay, s/veh	27.5		40.6			47.6		
Approach LOS	C		D			D		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.0	62.0				75.0		45.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	8.0	57.0				70.0		40.0
Max Q Clear Time (g_c+I1), s	0.0	0.0				0.0		0.0
Green Ext Time (p_c), s	0.0	0.0				0.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			42.6					
HCM 2010 LOS			D					

2022 No-Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	4	136	3	17	11	23	528	0	1	447	457
Future Volume (vph)	153	4	136	3	17	11	23	528	0	1	447	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	80		0	85		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.951						0.924	
Flt Protected		0.953			0.995		0.950			0.950		
Satd. Flow (prot)	0	1757	1567	0	1851	0	1823	1919	0	1743	1695	0
Flt Permitted		0.707			0.973		0.102			0.358		
Satd. Flow (perm)	0	1304	1567	0	1810	0	196	1919	0	657	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			148		12						68	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			158			388			335	
Travel Time (s)		6.2			3.6			8.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	166	4	148	3	18	12	25	574	0	1	486	497
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	148	0	33	0	25	574	0	1	983	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	83		83	6		83	6	
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Size(ft)	20	43	43	20	43		43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40	40		40		40			40		
Detector 2 Size(ft)		43	43		43		43			43		
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0			0.0		
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	

2022 No-Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak AM Hour

05/09/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	16.0		4.0	16.0	
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
v/c Ratio		0.61	0.33		0.08		0.09	0.50		0.00	0.99	
Control Delay		33.7	6.6		16.4		6.6	11.4		6.0	45.5	
Queue Delay		0.0	0.0		0.0		0.0	0.7		0.0	0.0	
Total Delay		33.7	6.6		16.4		6.6	12.0		6.0	45.5	
Queue Length 50th (ft)		54	0		6		3	96		0	248	
Queue Length 95th (ft)		130	41		28		14	323		2	#839	
Internal Link Dist (ft)		193			78			308			255	
Turn Bay Length (ft)			95				80			85		
Base Capacity (vph)		637	842		891		327	1153		537	992	
Starvation Cap Reductn		0	0		0		0	274		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.27	0.18		0.04		0.08	0.65		0.00	0.99	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 65

Natural Cycle: 90

Control Type: Semi Act-Uncoord

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: NYS Route 9D & Beekman Street/W. Church Street

13 s	41 s	36 s
13 s	41 s	36 s

2022 No-Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

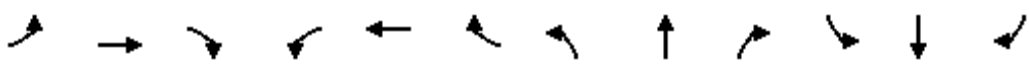
Weekday Peak AM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	4	136	3	17	11	23	528	0	1	447	457
Future Volume (veh/h)	153	4	136	3	17	11	23	528	0	1	447	457
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1844	1844	1995	1956	1995	1919	1919	0	1835	1835	1872
Adj Flow Rate, veh/h	166	4	148	3	18	12	25	574	0	1	486	497
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	349	6	271	71	191	114	155	1131	0	457	473	484
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.59	0.00	0.00	0.57	0.57
Sat Flow, veh/h	1370	33	1568	49	1105	660	1827	1919	0	1747	833	852
Grp Volume(v), veh/h	170	0	148	33	0	0	25	574	0	1	0	983
Grp Sat Flow(s),veh/h/ln	1403	0	1568	1814	0	0	1827	1919	0	1747	0	1685
Q Serve(g_s), s	6.2	0.0	5.5	0.0	0.0	0.0	0.4	11.1	0.0	0.0	0.0	36.0
Cycle Q Clear(g_c), s	7.1	0.0	5.5	1.0	0.0	0.0	0.4	11.1	0.0	0.0	0.0	36.0
Prop In Lane	0.98		1.00	0.09		0.36	1.00		0.00	1.00		0.51
Lane Grp Cap(c), veh/h	355	0	271	376	0	0	155	1131	0	457	0	957
V/C Ratio(X)	0.48	0.00	0.55	0.09	0.00	0.00	0.16	0.51	0.00	0.00	0.00	1.03
Avail Cap(c_a), veh/h	788	0	767	932	0	0	344	1131	0	675	0	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	23.9	22.1	0.0	0.0	15.6	7.6	0.0	6.6	0.0	13.7
Incr Delay (d2), s/veh	1.0	0.0	1.7	0.1	0.0	0.0	0.5	1.6	0.0	0.0	0.0	36.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	2.5	0.5	0.0	0.0	0.3	6.3	0.0	0.0	0.0	26.1
LnGrp Delay(d),s/veh	25.5	0.0	25.7	22.2	0.0	0.0	16.1	9.3	0.0	6.6	0.0	50.0
LnGrp LOS	C		C	C			B	A		A		F
Approach Vol, veh/h		318			33			599			984	
Approach Delay, s/veh		25.6			22.2			9.5			50.0	
Approach LOS		C			C			A			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	42.4		16.0	6.4	41.0		16.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	13.1		9.1	2.4	38.0		3.0				
Green Ext Time (p_c), s	0.0	5.8		1.9	0.0	0.0		2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			33.0									
HCM 2010 LOS			C									

2022 No-Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	3	4	2	10	7	118	4	430	30	236	344	6
Future Volume (vph)	3	4	2	10	7	118	4	430	30	236	344	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	0		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970				0.850		0.990			0.997	
Flt Protected		0.984			0.972		0.950			0.950		
Satd. Flow (prot)	0	1769	0	0	1883	1647	1796	1872	0	1743	1829	0
Flt Permitted							0.536			0.412		
Satd. Flow (perm)	0	1798	0	0	1937	1647	1013	1872	0	756	1829	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		76			138			182			388	
Travel Time (s)		1.7			3.1			4.1			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	4	2	11	8	128	4	467	33	257	374	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	19	128	4	500	0	257	381	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83	83	83	6		83	6	
Trailing Detector (ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Position(ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Size(ft)	20	43		20	43	43	43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40			40	40	40			40		
Detector 2 Size(ft)		43			43	43	43			43		
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0			0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	

2022 No-Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		8.0	8.0	4.0	4.0	31.0		4.0	36.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	36.0		9.0	41.0	
Total Split (s)	36.0	36.0		36.0	36.0	13.0	13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	14.4%	14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0		31.0	31.0	8.0	8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Max		None	Max	
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	11.0	11.0						11.0				
Pedestrian Calls (#/hr)	0	0						0				
v/c Ratio		0.05			0.07	0.44	0.00	0.41		0.33	0.23	
Control Delay		22.6			23.9	25.1	1.8	7.2		3.1	3.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		22.6			23.9	25.1	1.8	7.2		3.1	3.4	
Queue Length 50th (ft)		2			5	39	0	57		0	0	
Queue Length 95th (ft)		15			25	77	2	191		44	138	
Internal Link Dist (ft)		1			58			102			308	
Turn Bay Length (ft)						70				120		
Base Capacity (vph)		998			1074	300	909	1206		793	1660	
Starvation Cap Reductn		0			0	0	0	0		0	78	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.02	0.43	0.00	0.41		0.32	0.24	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 56.3

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Splits and Phases: 7: NYS Route 9D & Beacon City Hall/Main Street

 Ø2	 Ø1	 Ø4
41 s	13 s	36 s
 Ø6	 Ø5	 Ø8
41 s	13 s	36 s

2022 No-Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour

05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	2	10	7	118	4	430	30	236	344	6
Future Volume (veh/h)	3	4	2	10	7	118	4	430	30	236	344	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1853	1890	1976	1937	1937	1891	1891	1928	1835	1835	1872
Adj Flow Rate, veh/h	3	4	2	11	8	128	4	467	33	257	374	7
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	117	44	183	110	301	701	1007	71	598	1035	19
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.58	0.58	0.06	0.58	0.58
Sat Flow, veh/h	299	978	365	767	920	1647	1801	1746	123	1747	1795	34
Grp Volume(v), veh/h	9	0	0	19	0	128	4	0	500	257	0	381
Grp Sat Flow(s),veh/h/ln	1642	0	0	1687	0	1647	1801	0	1869	1747	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	9.6	0.0	0.0	7.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.5	0.0	0.3	0.0	0.0	9.6	0.0	0.0	7.0
Prop In Lane	0.33		0.22	0.58		1.00	1.00		0.07	1.00		0.02
Lane Grp Cap(c), veh/h	273	0	0	293	0	301	701	0	1078	598	0	1055
V/C Ratio(X)	0.03	0.00	0.00	0.06	0.00	0.42	0.01	0.00	0.46	0.43	0.00	0.36
Avail Cap(c_a), veh/h	854	0	0	907	0	922	818	0	1078	711	0	1055
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	0.0	24.4	0.0	22.6	7.0	0.0	7.6	11.7	0.0	7.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.0	0.0	0.0	1.4	0.5	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.3	0.0	0.2	0.0	0.0	5.3	3.3	0.0	3.8
LnGrp Delay(d),s/veh	24.4	0.0	0.0	24.5	0.0	23.5	7.0	0.0	9.1	12.2	0.0	8.0
LnGrp LOS	C			C		C	A		A	B		A
Approach Vol, veh/h		9			147			504			638	
Approach Delay, s/veh		24.4			23.7			9.1			9.7	
Approach LOS		C			C			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		12.5	9.0	41.0		12.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	11.6		2.3	2.0	9.0		2.5				
Green Ext Time (p_c), s	0.7	1.3		0.8	0.7	0.9		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay				11.1								
HCM 2010 LOS				B								

2022 No-Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak AM Hour
05/09/2017

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	7	44	0
Future Volume (vph)	0	0	0	7	44	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	10%			10%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1805	0	0	1805	1937	0
Flt Permitted						
Satd. Flow (perm)	1805	0	0	1805	1937	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	206			200	796	
Travel Time (s)	4.7			4.5	18.1	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%
Adj. Flow (vph)	0	0	0	9	54	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	9	54	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.07	1.07	0.94	0.94
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 No-Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	7	44	0
Future Vol, veh/h	0	0	0	7	44	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	10	-10	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	3	0
Mvmt Flow	0	0	0	9	54	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	63	54	54	0	-	0
Stage 1	54	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	8.4	7.2	4.1	-	-	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	915	1004	1564	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	915	1004	1564	-	-	-
Mov Cap-2 Maneuver	915	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1564	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

2022 No-Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak AM Hour
 05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	40	0	0	41	0	0
Future Volume (vph)	40	0	0	41	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	3%			-5%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr t						
Flt Protected						
Satd. Flow (prot)	1817	0	0	1837	1900	0
Flt Permitted						
Satd. Flow (perm)	1817	0	0	1837	1900	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			236	134	
Travel Time (s)	3.6			5.4	3.0	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	3%	0%	5%	6%	0%	3%
Adj. Flow (vph)	49	0	0	50	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	0	50	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 No-Build Traffic Volumes
9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	
Traffic Vol, veh/h	40	0	0	41	0	0
Future Vol, veh/h	40	0	0	41	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	3	-	-	-5	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	3	0	5	6	0	3
Mvmt Flow	49	0	0	50	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	99	49
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	50	-
Critical Hdwy	-	-	-	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	-	0	0	-	905	1017
Stage 1	-	0	0	-	979	-
Stage 2	-	0	0	-	978	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	905	1017
Mov Cap-2 Maneuver	-	-	-	-	905	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	978	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	-	-	-			
HCM Lane V/C Ratio	-	-	-			
HCM Control Delay (s)	0	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	-	-	-			

2022 No-Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak PM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	6	28	7	3	10	11	772	3	3	735	56
Future Volume (vph)	21	6	28	7	3	10	11	772	3	3	735	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			-1%			0%			-5%	
Storage Length (ft)	0		0	0		0	120		0	120		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.931			0.929			0.999			0.989	
Flt Protected		0.981			0.984		0.950			0.950		
Satd. Flow (prot)	0	1726	0	0	1650	0	1641	1825	0	1850	1888	0
Flt Permitted		0.981			0.984		0.950			0.950		
Satd. Flow (perm)	0	1726	0	0	1650	0	1641	1825	0	1850	1888	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		833			226			335			948	
Travel Time (s)		18.9			5.1			7.6			21.5	
Confl. Peds. (#/hr)	2		3	2		3	5			5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	4%	0%	0%	11%	10%	4%	0%	0%	2%	2%
Adj. Flow (vph)	22	6	29	7	3	11	12	813	3	3	774	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	21	0	12	816	0	3	833	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	0.97	0.97	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

2022 No-Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak PM Hour
05/09/2017

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↖	↗		↖	↗	
Traffic Vol, veh/h	21	6	28	7	3	10	11	772	3	3	735	56
Future Vol, veh/h	21	6	28	7	3	10	11	772	3	3	735	56
Conflicting Peds, #/hr	2	0	3	2	0	3	5	0	0	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	-1	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	4	0	0	11	10	4	0	0	2	2
Mvmt Flow	22	6	29	7	3	11	12	813	3	3	774	59
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1661	1658	811	1672	1686	822	838	0	0	821	0	0
Stage 1	814	814	-	842	842	-	-	-	-	-	-	-
Stage 2	847	844	-	830	844	-	-	-	-	-	-	-
Critical Hdwy	6.5	5.9	5.94	6.9	6.3	6.21	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.399	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	103	130	403	84	104	369	763	-	-	817	-	-
Stage 1	429	452	-	379	401	-	-	-	-	-	-	-
Stage 2	414	440	-	385	400	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	97	126	400	75	101	367	761	-	-	815	-	-
Mov Cap-2 Maneuver	229	257	-	195	224	-	-	-	-	-	-	-
Stage 1	420	448	-	371	393	-	-	-	-	-	-	-
Stage 2	392	431	-	349	397	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	20			20			0.1			0		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	761	-	-	297	261	815	-	-				
HCM Lane V/C Ratio	0.015	-	-	0.195	0.081	0.004	-	-				
HCM Control Delay (s)	9.8	-	-	20	20	9.4	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.7	0.3	0	-	-				

2022 No-Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	46	1	15	55	1	8
Future Volume (vph)	46	1	15	55	1	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-2%			1%	7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.997				0.878	
Flt Protected				0.989	0.995	
Satd. Flow (prot)	1913	0	0	1789	1602	0
Flt Permitted				0.989	0.995	
Satd. Flow (perm)	1913	0	0	1789	1602	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	236			833	796	
Travel Time (s)	5.4			18.9	18.1	
Confl. Peds. (#/hr)						3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	10%	3%	0%	0%
Adj. Flow (vph)	51	1	17	61	1	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	0	78	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.01	1.01	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 No-Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	46	1	15	55	1	8
Future Vol, veh/h	46	1	15	55	1	8
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	1	7	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	10	3	0	0
Mvmt Flow	51	1	17	61	1	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	52	0	146	55
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	94	-
Critical Hdwy	-	-	4.2	-	7.8	6.9
Critical Hdwy Stg 1	-	-	-	-	6.8	-
Critical Hdwy Stg 2	-	-	-	-	6.8	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1504	-	804	1007
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	901	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1500	-	794	1004
Mov Cap-2 Maneuver	-	-	-	-	794	-
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	890	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.6		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	975	-	-	1500	-	
HCM Lane V/C Ratio	0.01	-	-	0.011	-	
HCM Control Delay (s)	8.7	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

2022 No-Build Traffic Volumes

Weekday Peak PM Hour

3: Beekman Street/Beekman Street & The Views Development/W. Main Street

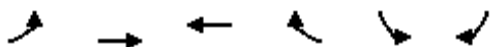
05/09/2017

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	0	2	0	3	11	9	332	5	21	64	74
Future Volume (vph)	30	0	2	0	3	11	9	332	5	21	64	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		5%			0%			-1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.892			0.999			0.933	
Flt Protected		0.955						0.999			0.996	
Satd. Flow (prot)	0	1753	0	0	1662	0	0	1875	0	0	1715	0
Flt Permitted		0.955						0.999			0.996	
Satd. Flow (perm)	0	1753	0	0	1662	0	0	1875	0	0	1715	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			162			321			353	
Travel Time (s)		14.5			3.7			7.3			8.0	
Peak Hour Factor	0.53	0.92	0.53	0.92	0.92	0.92	0.53	0.53	0.92	0.92	0.53	0.53
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	25%	1%	2%	2%	2%	6%
Adj. Flow (vph)	57	0	4	0	3	12	17	626	5	23	121	140
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	15	0	0	648	0	0	284	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection												
Int Delay, s/veh	2.4											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	0	2	0	3	11	9	332	5	21	64	74
Future Vol, veh/h	30	0	2	0	3	11	9	332	5	21	64	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	53	92	53	92	92	92	53	53	92	92	53	53
Heavy Vehicles, %	0	2	0	2	2	2	25	1	2	2	2	6
Mvmt Flow	57	0	4	0	3	12	17	626	5	23	121	140
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	907	902	191	901	969	629	260	0	0	632	0	0
Stage 1	236	236	-	663	663	-	-	-	-	-	-	-
Stage 2	671	666	-	238	306	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.52	6.7	7.12	6.52	6.22	4.35	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	6.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.425	-	-	2.218	-	-
Pot Cap-1 Maneuver	201	216	833	259	254	482	1182	-	-	951	-	-
Stage 1	723	665	-	450	459	-	-	-	-	-	-	-
Stage 2	373	380	-	765	662	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	187	205	833	248	241	482	1182	-	-	951	-	-
Mov Cap-2 Maneuver	187	205	-	248	241	-	-	-	-	-	-	-
Stage 1	707	646	-	440	449	-	-	-	-	-	-	-
Stage 2	353	372	-	739	643	-	-	-	-	-	-	-
Approach	SE			NW			NE			SW		
HCM Control Delay, s	31.2			14.4			0.2			0.7		
HCM LOS	D			B								
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1182	-	-	397	197	951	-	-				
HCM Lane V/C Ratio	0.014	-	-	0.038	0.306	0.024	-	-				
HCM Control Delay (s)	8.1	0	-	14.4	31.2	8.9	0	-				
HCM Lane LOS	A	A	-	B	D	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	1.2	0.1	-	-				

2022 No-Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak PM Hour
05/09/2017



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	31	82	4	1	15
Future Volume (vph)	3	31	82	4	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		3%	-5%		-8%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.994		0.872	
Flt Protected		0.995			0.998	
Satd. Flow (prot)	0	1862	1767	0	1720	0
Flt Permitted		0.995			0.998	
Satd. Flow (perm)	0	1862	1767	0	1720	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	640		200	
Travel Time (s)		6.0	14.5		4.5	
Confl. Peds. (#/hr)	15					
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	10%	0%	0%	0%
Adj. Flow (vph)	4	39	103	5	1	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	108	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	0.95	0.95
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 No-Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	31	82	4	1	15
Future Vol, veh/h	3	31	82	4	1	15
Conflicting Peds, #/hr	15	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-8	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	10	0	0	0
Mvmt Flow	4	39	103	5	1	19
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	123	0	-	0	166	120
Stage 1	-	-	-	-	120	-
Stage 2	-	-	-	-	46	-
Critical Hdwy	4.1	-	-	-	4.8	5.4
Critical Hdwy Stg 1	-	-	-	-	3.8	-
Critical Hdwy Stg 2	-	-	-	-	3.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1477	-	-	-	893	962
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	1002	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1477	-	-	-	868	950
Mov Cap-2 Maneuver	-	-	-	-	868	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	987	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.7		0		8.9	
HCM LOS					A	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1477	-	-	-	944	
HCM Lane V/C Ratio	0.003	-	-	-	0.021	
HCM Control Delay (s)	7.4	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

2022 No-Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	48	278	735	68	217	724
Future Volume (vph)	48	278	735	68	217	724
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	90	0		0	215	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1815	0	1778	1872
Flt Permitted	0.950				0.096	
Satd. Flow (perm)	1725	1544	1815	0	180	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	207		948			167
Travel Time (s)	4.7		21.5			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	302	799	74	236	787
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	302	873	0	236	787
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Minimum Split (s)	21.0	9.0	62.0		9.0	45.0
Total Split (s)	35.0	14.0	71.0		14.0	85.0
Total Split (%)	29.2%	11.7%	59.2%		11.7%	70.8%
Maximum Green (s)	30.0	9.0	66.0		9.0	80.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Walk Time (s)	5.0		5.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
v/c Ratio	0.12	0.53	0.87		0.99	0.63
Control Delay	35.9	34.2	35.0		76.9	14.4

2022 No-Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	35.9	34.2	35.0		76.9	14.4
Queue Length 50th (ft)	31	183	561		96	321
Queue Length 95th (ft)	65	274	#848		#264	443
Internal Link Dist (ft)	127		868			87
Turn Bay Length (ft)	90				215	
Base Capacity (vph)	431	566	998		239	1248
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	0.12	0.53	0.87		0.99	0.63

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 95
 Control Type: Pretimed
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: NYS Route 9D & Verplanck Avenue



2022 No-Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

								
Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	48	278	735	68	217	724		
Future Volume (veh/h)	48	278	735	68	217	724		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1816	1816	1835	1872	1872	1872		
Adj Flow Rate, veh/h	52	302	799	74	236	787		
Adj No. of Lanes	1	1	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	432	502	910	84	276	1248		
Arrive On Green	0.25	0.25	0.55	0.55	0.08	0.67		
Sat Flow, veh/h	1730	1544	1655	153	1783	1872		
Grp Volume(v), veh/h	52	302	0	873	236	787		
Grp Sat Flow(s),veh/h/ln	1730	1544	0	1808	1783	1872		
Q Serve(g_s), s	2.8	19.7	0.0	50.4	6.6	29.0		
Cycle Q Clear(g_c), s	2.8	19.7	0.0	50.4	6.6	29.0		
Prop In Lane	1.00	1.00		0.08	1.00			
Lane Grp Cap(c), veh/h	432	502	0	994	276	1248		
V/C Ratio(X)	0.12	0.60	0.00	0.88	0.85	0.63		
Avail Cap(c_a), veh/h	432	502	0	994	276	1248		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	34.8	34.0	0.0	23.5	25.4	11.5		
Incr Delay (d2), s/veh	0.6	5.3	0.0	10.9	27.1	2.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.4	9.1	0.0	28.0	6.5	15.7		
LnGrp Delay(d),s/veh	35.4	39.3	0.0	34.4	52.5	13.9		
LnGrp LOS	D	D		C	D	B		
Approach Vol, veh/h	354		873			1023		
Approach Delay, s/veh	38.7		34.4			22.8		
Approach LOS	D		C			C		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.0	71.0				85.0		35.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	9.0	66.0				80.0		30.0
Max Q Clear Time (g_c+I1), s	0.0	0.0				0.0		0.0
Green Ext Time (p_c), s	0.0	0.0				0.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			29.8					
HCM 2010 LOS			C					

2022 No-Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	325	6	48	12	3	7	47	455	11	12	631	126
Future Volume (vph)	325	6	48	12	3	7	47	455	11	12	631	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	80		0	85		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.996			0.975	
Flt Protected		0.953			0.974		0.950			0.950		
Satd. Flow (prot)	0	1757	1567	0	1819	0	1823	1911	0	1743	1789	0
Flt Permitted		0.713			0.814		0.096			0.374		
Satd. Flow (perm)	0	1315	1567	0	1520	0	184	1911	0	686	1789	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		8			2			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			158			388			335	
Travel Time (s)		6.2			3.6			8.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	353	7	52	13	3	8	51	495	12	13	686	137
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	360	52	0	24	0	51	507	0	13	823	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	83		83	6		83	6	
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Size(ft)	20	43	43	20	43		43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40	40		40		40			40		
Detector 2 Size(ft)		43	43		43		43			43		
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0			0.0		
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	

2022 No-Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour
05/09/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	16.0		4.0	16.0	
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
v/c Ratio		0.86	0.09		0.05		0.21	0.50		0.03	0.98	
Control Delay		46.9	2.2		15.7		11.5	16.3		9.8	52.6	
Queue Delay		0.0	0.0		0.0		0.0	2.0		0.0	0.0	
Total Delay		46.9	2.2		15.7		11.5	18.3		9.8	52.6	
Queue Length 50th (ft)		179	0		6		12	161		3	~523	
Queue Length 95th (ft)		#328	11		23		29	331		12	#777	
Internal Link Dist (ft)		193			78			308			255	
Turn Bay Length (ft)			95				80			85		
Base Capacity (vph)		527	679		614		269	1004		466	840	
Starvation Cap Reductn		0	0		0		0	338		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.68	0.08		0.04		0.19	0.76		0.03	0.98	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 79.3

Natural Cycle: 90

Control Type: Semi Act-Uncoord

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: NYS Route 9D & Beekman Street/W. Church Street

13 s	41 s	36 s
13 s	41 s	36 s

2022 No-Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour

05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	6	48	12	3	7	47	455	11	12	631	126
Future Volume (veh/h)	325	6	48	12	3	7	47	455	11	12	631	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1844	1844	1995	1956	1995	1919	1919	1957	1835	1835	1872
Adj Flow Rate, veh/h	353	7	52	13	3	8	51	495	12	13	686	137
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	7	573	77	27	19	145	830	20	321	631	126
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.03	0.45	0.45	0.01	0.42	0.42
Sat Flow, veh/h	998	20	1568	32	75	53	1827	1865	45	1747	1486	297
Grp Volume(v), veh/h	360	0	52	24	0	0	51	0	507	13	0	823
Grp Sat Flow(s),veh/h/ln	1018	0	1568	159	0	0	1827	0	1911	1747	0	1782
Q Serve(g_s), s	0.0	0.0	1.8	0.4	0.0	0.0	1.3	0.0	17.0	0.4	0.0	36.0
Cycle Q Clear(g_c), s	29.8	0.0	1.8	30.3	0.0	0.0	1.3	0.0	17.0	0.4	0.0	36.0
Prop In Lane	0.98		1.00	0.54		0.33	1.00		0.02	1.00		0.17
Lane Grp Cap(c), veh/h	456	0	573	124	0	0	145	0	850	321	0	757
V/C Ratio(X)	0.79	0.00	0.09	0.19	0.00	0.00	0.35	0.00	0.60	0.04	0.00	1.09
Avail Cap(c_a), veh/h	456	0	573	124	0	0	257	0	850	464	0	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	0.0	17.7	22.0	0.0	0.0	20.5	0.0	17.8	14.9	0.0	24.4
Incr Delay (d2), s/veh	9.0	0.0	0.1	0.8	0.0	0.0	1.4	0.0	3.1	0.1	0.0	59.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	0.0	0.8	0.4	0.0	0.0	0.7	0.0	9.6	0.2	0.0	29.9
LnGrp Delay(d),s/veh	35.5	0.0	17.7	22.8	0.0	0.0	21.9	0.0	20.8	15.0	0.0	83.5
LnGrp LOS	D		B	C			C		C	B		F
Approach Vol, veh/h		412			24			558			836	
Approach Delay, s/veh		33.3			22.8			20.9			82.4	
Approach LOS		C			C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	42.7		36.0	7.8	41.0		36.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.4	19.0		31.8	3.3	38.0		32.3				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			51.8									
HCM 2010 LOS			D									

2022 No-Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	1	8	1	23	2	143	1	370	44	250	436	1
Future Volume (vph)	1	8	1	23	2	143	1	370	44	250	436	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	0		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988				0.850		0.984				
Flt Protected		0.995			0.956		0.950			0.950		
Satd. Flow (prot)	0	1822	0	0	1852	1647	1796	1860	0	1743	1835	0
Flt Permitted		0.964					0.465			0.442		
Satd. Flow (perm)	0	1765	0	0	1937	1647	879	1860	0	811	1835	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		76			138			182			388	
Travel Time (s)		1.7			3.1			4.1			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	9	1	25	2	155	1	402	48	272	474	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	27	155	1	450	0	272	475	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83	83	83	6		83	6	
Trailing Detector (ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Position(ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Size(ft)	20	43		20	43	43	43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40			40	40	40			40		
Detector 2 Size(ft)		43			43	43	43			43		
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0			0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	

2022 No-Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		8.0	8.0	4.0	4.0	31.0		4.0	36.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	36.0		9.0	41.0	
Total Split (s)	36.0	36.0		36.0	36.0	13.0	13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	14.4%	14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0		31.0	31.0	8.0	8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Max		None	Max	
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	11.0	11.0						11.0				
Pedestrian Calls (#/hr)	0	0						0				
v/c Ratio		0.06			0.10	0.44	0.00	0.39		0.34	0.30	
Control Delay		25.3			26.1	23.5	3.0	8.4		4.1	4.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		25.3			26.1	23.5	3.0	8.4		4.1	4.7	
Queue Length 50th (ft)		3			8	48	0	50		0	0	
Queue Length 95th (ft)		17			31	92	1	170		48	183	
Internal Link Dist (ft)		1			58			102			308	
Turn Bay Length (ft)						70				120		
Base Capacity (vph)		937			1028	354	787	1146		796	1566	
Starvation Cap Reductn		0			0	0	0	0		0	71	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.03	0.44	0.00	0.39		0.34	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 59.1

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Splits and Phases: 7: NYS Route 9D & Beacon City Hall/Main Street

 Ø2	 Ø1	 Ø4
41 s	13 s	36 s
 Ø6	 Ø5	 Ø8
41 s	13 s	36 s

2022 No-Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour

05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	8	1	23	2	143	1	370	44	250	436	1
Future Volume (veh/h)	1	8	1	23	2	143	1	370	44	250	436	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1853	1890	1976	1937	1937	1891	1891	1928	1835	1835	1872
Adj Flow Rate, veh/h	1	9	1	25	2	155	1	402	48	272	474	1
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	195	20	277	18	307	624	952	114	629	1051	2
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.57	0.57	0.06	0.57	0.57
Sat Flow, veh/h	51	1583	163	1352	148	1647	1801	1658	198	1747	1830	4
Grp Volume(v), veh/h	11	0	0	27	0	155	1	0	450	272	0	475
Grp Sat Flow(s),veh/h/ln	1798	0	0	1500	0	1647	1801	0	1856	1747	0	1834
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	1.3	0.0	0.0	8.5	0.0	0.0	9.3
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.9	0.0	1.3	0.0	0.0	8.5	0.0	0.0	9.3
Prop In Lane	0.09		0.09	0.93		1.00	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	284	0	0	295	0	307	624	0	1066	629	0	1053
V/C Ratio(X)	0.04	0.00	0.00	0.09	0.00	0.50	0.00	0.00	0.42	0.43	0.00	0.45
Avail Cap(c_a), veh/h	931	0	0	846	0	918	740	0	1066	742	0	1053
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	0.0	24.5	0.0	22.9	8.2	0.0	7.5	11.1	0.0	7.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	1.3	0.0	0.0	1.2	0.5	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.4	0.0	0.7	0.0	0.0	4.6	3.3	0.0	5.0
LnGrp Delay(d),s/veh	24.3	0.0	0.0	24.6	0.0	24.2	8.2	0.0	8.7	11.5	0.0	9.1
LnGrp LOS	C			C		C	A		A	B		A
Approach Vol, veh/h		11			182			451			747	
Approach Delay, s/veh		24.3			24.2			8.7			10.0	
Approach LOS		C			C			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		12.7	9.0	41.0		12.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	10.5		2.3	2.0	11.3		3.3				
Green Ext Time (p_c), s	0.7	1.2		1.1	0.7	1.2		1.1				
Intersection Summary												
HCM 2010 Ctrl Delay				11.5								
HCM 2010 LOS				B								

2022 No-Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak PM Hour
05/09/2017

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	8	17	0
Future Volume (vph)	0	0	0	8	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	10%			10%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1805	0	0	1805	1995	0
Flt Permitted						
Satd. Flow (perm)	1805	0	0	1805	1995	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	206			200	796	
Travel Time (s)	4.7			4.5	18.1	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	0	0	10	21	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	10	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.07	1.07	0.94	0.94
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 No-Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	8	17	0
Future Vol, veh/h	0	0	0	8	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	10	-10	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	10	21	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	31	21	21	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	8.4	7.2	4.1	-	-	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	971	1056	1608	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	971	1056	1608	-	-	-
Mov Cap-2 Maneuver	971	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1608	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

2022 No-Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak PM Hour
 05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	47	0	0	70	0	0
Future Volume (vph)	47	0	0	70	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	3%			-5%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr t						
Flt Protected						
Satd. Flow (prot)	1872	0	0	1909	1900	0
Flt Permitted						
Satd. Flow (perm)	1872	0	0	1909	1900	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			236	134	
Travel Time (s)	3.6			5.4	3.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	2%	0%	0%
Adj. Flow (vph)	52	0	0	78	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	0	78	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 No-Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak PM Hour
 05/09/2017

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	
Traffic Vol, veh/h	47	0	0	70	0	0
Future Vol, veh/h	47	0	0	70	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	3	-	-	-5	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	52	0	0	78	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	130	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	0	-	869	1021
Stage 1	-	0	0	-	976	-
Stage 2	-	0	0	-	950	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	869	1021
Mov Cap-2 Maneuver	-	-	-	-	869	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	950	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	-	-	-			
HCM Lane V/C Ratio	-	-	-			
HCM Control Delay (s)	0	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	-	-	-			

2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	9	21	1	4	4	13	682	1	1	895	81
Future Volume (vph)	81	9	21	1	4	4	13	682	1	1	895	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			-1%			0%			-5%	
Storage Length (ft)	0		0	0		0	120		0	120		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.974			0.939						0.988	
Flt Protected		0.965			0.995		0.950			0.950		
Satd. Flow (prot)	0	1813	0	0	1784	0	1543	1810	0	1850	1830	0
Flt Permitted		0.965			0.995		0.950			0.950		
Satd. Flow (perm)	0	1813	0	0	1784	0	1543	1810	0	1850	1830	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		833			226			335			948	
Travel Time (s)		18.9			5.1			7.6			21.5	
Confl. Peds. (#/hr)	3			3			2			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%	0%	0%	0%	0%	0%	17%	5%	0%	0%	5%	7%
Adj. Flow (vph)	93	10	24	1	5	5	15	784	1	1	1029	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	0	0	11	0	15	785	0	1	1122	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	0.97	0.97	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour
05/09/2017

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	81	9	21	1	4	4	13	682	1	1	895	81
Future Vol, veh/h	81	9	21	1	4	4	13	682	1	1	895	81
Conflicting Peds, #/hr	3	0	0	3	0	0	2	0	0	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	-1	-	-	0	-	-	-5	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	17	5	0	0	5	7
Mvmt Flow	93	10	24	1	5	5	15	784	1	1	1029	93
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1902	1897	1080	1914	1942	789	1124	0	0	787	0	0
Stage 1	1080	1080	-	816	816	-	-	-	-	-	-	-
Stage 2	822	817	-	1098	1126	-	-	-	-	-	-	-
Critical Hdwy	6.5	5.9	5.9	6.9	6.3	6.1	4.27	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.353	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 73	96	293	58	73	403	569	-	-	841	-	-
Stage 1	319	355	-	391	412	-	-	-	-	-	-	-
Stage 2	425	450	-	277	301	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 69	93	292	50	71	401	568	-	-	839	-	-
Mov Cap-2 Maneuver	191	220	-	152	183	-	-	-	-	-	-	-
Stage 1	310	354	-	380	400	-	-	-	-	-	-	-
Stage 2	403	437	-	246	300	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	46.9			21.1			0.2			0		
HCM LOS	E			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	568	-	-	207	234	839	-	-				
HCM Lane V/C Ratio	0.026	-	-	0.616	0.044	0.001	-	-				
HCM Control Delay (s)	11.5	-	-	46.9	21.1	9.3	-	-				
HCM Lane LOS	B	-	-	E	C	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	3.5	0.1	0	-	-				
Notes												
~: Volume exceeds capacity	\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon					

2022 Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↘↙	
Traffic Volume (vph)	95	2	42	30	0	4
Future Volume (vph)	95	2	42	30	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-2%			1%	7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.998				0.865	
Flt Protected				0.972		
Satd. Flow (prot)	1808	0	0	1756	1586	0
Flt Permitted				0.972		
Satd. Flow (perm)	1808	0	0	1756	1586	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	236			833	796	
Travel Time (s)	5.4			18.9	18.1	
Confl. Peds. (#/hr)			2			1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	0%	0%	11%	0%	0%
Adj. Flow (vph)	116	2	51	37	0	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	118	0	0	88	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.01	1.01	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Weekday Peak AM Hour
05/09/2017

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	913	-	-	1479	-
HCM Lane V/C Ratio	0.005	-	-	0.035	-
HCM Control Delay (s)	9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

2022 Build Traffic Volumes

Weekday Peak AM Hour

3: Beekman Street/Beekman Street & The Views Development/W. Main Street

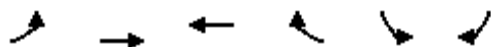
05/09/2017

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	0	2	0	4	15	14	160	1	4	182	353
Future Volume (vph)	20	0	2	0	4	15	14	160	1	4	182	353
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		5%			0%			-1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.990			0.892			0.999			0.911	
Flt Protected		0.956						0.996				
Satd. Flow (prot)	0	1753	0	0	1662	0	0	1728	0	0	1731	0
Flt Permitted		0.956						0.996				
Satd. Flow (perm)	0	1753	0	0	1662	0	0	1728	0	0	1731	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			137			321			353	
Travel Time (s)		14.5			3.1			7.3			8.0	
Confl. Peds. (#/hr)							1					
Peak Hour Factor	0.83	0.92	0.83	0.92	0.92	0.92	0.83	0.83	0.92	0.92	0.83	0.83
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	67%	5%	2%	2%	1%	1%
Adj. Flow (vph)	24	0	2	0	4	16	17	193	1	4	219	425
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	20	0	0	211	0	0	648	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection															
Int Delay, s/veh	1														
Movement	SEL	SET	SER		NWL	NWT	NWR		NEL	NET	NER		SWL	SWT	SWR
Lane Configurations		↕				↕				↕				↕	
Traffic Vol, veh/h	20	0	2		0	4	15		14	160	1		4	182	353
Future Vol, veh/h	20	0	2		0	4	15		14	160	1		4	182	353
Conflicting Peds, #/hr	0	0	0		0	0	0		1	0	0		0	0	0
Sign Control	Stop	Stop	Stop		Stop	Stop	Stop		Free	Free	Free		Free	Free	Free
RT Channelized	-	-	None		-	-	None		-	-	None		-	-	None
Storage Length	-	-	-		-	-	-		-	-	-		-	-	-
Veh in Median Storage, #	-	0	-		-	0	-		-	0	-		-	0	-
Grade, %	-	5	-		-	0	-		-	-1	-		-	-2	-
Peak Hour Factor	83	92	83		92	92	92		83	83	92		92	83	83
Heavy Vehicles, %	0	2	0		2	2	2		67	5	2		2	1	1
Mvmt Flow	24	0	2		0	4	16		17	193	1		4	219	425
Major/Minor	Minor2			Minor1			Major1			Major2					
Conflicting Flow All	679	670	433		669	881	193		646	0	0		194	0	0
Stage 1	442	442	-		227	227	-		-	-	-		-	-	-
Stage 2	237	228	-		442	654	-		-	-	-		-	-	-
Critical Hdwy	8.1	7.52	6.7		7.12	6.52	6.22		4.77	-	-		4.12	-	-
Critical Hdwy Stg 1	7.1	6.52	-		6.12	5.52	-		-	-	-		-	-	-
Critical Hdwy Stg 2	7.1	6.52	-		6.12	5.52	-		-	-	-		-	-	-
Follow-up Hdwy	3.5	4.018	3.3		3.518	4.018	3.318		2.803	-	-		2.218	-	-
Pot Cap-1 Maneuver	305	314	590		371	285	849		694	-	-		1379	-	-
Stage 1	529	510	-		776	716	-		-	-	-		-	-	-
Stage 2	722	671	-		594	463	-		-	-	-		-	-	-
Platoon blocked, %										-	-			-	-
Mov Cap-1 Maneuver	288	304	590		360	276	849		694	-	-		1379	-	-
Mov Cap-2 Maneuver	288	304	-		360	276	-		-	-	-		-	-	-
Stage 1	514	507	-		755	697	-		-	-	-		-	-	-
Stage 2	685	653	-		589	460	-		-	-	-		-	-	-
Approach	SE			NW			NE			SW					
HCM Control Delay, s	18.1			11.3			0.8			0.1					
HCM LOS	C			B											
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR								
Capacity (veh/h)	694	-	-	591	302	1379	-	-							
HCM Lane V/C Ratio	0.024	-	-	0.035	0.088	0.003	-	-							
HCM Control Delay (s)	10.3	0	-	11.3	18.1	7.6	0	-							
HCM Lane LOS	B	A	-	B	C	A	A	-							
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.3	0	-	-							

2022 Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak AM Hour
05/09/2017



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	9	357	14	14	86
Future Volume (vph)	7	9	357	14	14	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		3%	-5%		-8%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.884	
Flt Protected		0.978			0.993	
Satd. Flow (prot)	0	1830	1919	0	1691	0
Flt Permitted		0.978			0.993	
Satd. Flow (perm)	0	1830	1919	0	1691	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	640		200	
Travel Time (s)		6.0	14.5		4.5	
Confl. Peds. (#/hr)	34			1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	1%	0%	0%	3%
Adj. Flow (vph)	9	11	435	17	17	105
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	20	452	0	122	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	0.95	0.95
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	9	357	14	14	86
Future Vol, veh/h	7	9	357	14	14	86
Conflicting Peds, #/hr	34	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-8	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	1	0	0	3
Mvmt Flow	9	11	435	17	17	105
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	486	0	-	0	506	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	4.1	-	-	-	4.8	5.43
Critical Hdwy Stg 1	-	-	-	-	3.8	-
Critical Hdwy Stg 2	-	-	-	-	3.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	1087	-	-	-	663	651
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1087	-	-	-	621	633
Mov Cap-2 Maneuver	-	-	-	-	621	-
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	975	-
Approach	EB		WB		SB	
HCM Control Delay, s	3.6		0		12.1	
HCM LOS					B	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1087	-	-	-	631	
HCM Lane V/C Ratio	0.008	-	-	-	0.193	
HCM Control Delay (s)	8.3	0	-	-	12.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	69	215	671	75	248	885
Future Volume (vph)	69	215	671	75	248	885
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	90	0		0	215	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.986			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1809	0	1778	1872
Flt Permitted	0.950				0.065	
Satd. Flow (perm)	1725	1544	1809	0	122	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	207		948			167
Travel Time (s)	4.7		21.5			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	234	729	82	270	962
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	234	811	0	270	962
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Minimum Split (s)	21.0	9.0	62.0		9.0	45.0
Total Split (s)	45.0	13.0	62.0		13.0	75.0
Total Split (%)	37.5%	10.8%	51.7%		10.8%	62.5%
Maximum Green (s)	40.0	8.0	57.0		8.0	70.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Walk Time (s)	5.0		5.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
v/c Ratio	0.13	0.34	0.94		1.49	0.88
Control Delay	28.7	23.9	50.6		273.3	32.7

2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.7	23.9	50.6		273.3	32.7
Queue Length 50th (ft)	40	117	582		~239	606
Queue Length 95th (ft)	77	181	#857		#413	#920
Internal Link Dist (ft)	127		868			87
Turn Bay Length (ft)	90				215	
Base Capacity (vph)	575	681	859		181	1092
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	0.34	0.94		1.49	0.88

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 95
 Control Type: Pretimed
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: NYS Route 9D & Verplanck Avenue



2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

								
Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	69	215	671	75	248	885		
Future Volume (veh/h)	69	215	671	75	248	885		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1816	1816	1835	1872	1872	1872		
Adj Flow Rate, veh/h	75	234	729	82	270	962		
Adj No. of Lanes	1	1	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	577	618	770	87	210	1092		
Arrive On Green	0.33	0.33	0.47	0.47	0.07	0.58		
Sat Flow, veh/h	1730	1544	1620	182	1783	1872		
Grp Volume(v), veh/h	75	234	0	811	270	962		
Grp Sat Flow(s),veh/h/ln	1730	1544	0	1803	1783	1872		
Q Serve(g_s), s	3.6	12.9	0.0	51.5	8.0	52.9		
Cycle Q Clear(g_c), s	3.6	12.9	0.0	51.5	8.0	52.9		
Prop In Lane	1.00	1.00		0.10	1.00			
Lane Grp Cap(c), veh/h	577	618	0	856	210	1092		
V/C Ratio(X)	0.13	0.38	0.00	0.95	1.29	0.88		
Avail Cap(c_a), veh/h	577	618	0	856	210	1092		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	27.9	25.5	0.0	30.1	30.9	21.4		
Incr Delay (d2), s/veh	0.5	1.8	0.0	20.3	160.7	10.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.8	5.8	0.0	30.3	16.3	30.1		
LnGrp Delay(d),s/veh	28.3	27.2	0.0	50.4	191.6	31.7		
LnGrp LOS	C	C		D	F	C		
Approach Vol, veh/h	309		811			1232		
Approach Delay, s/veh	27.5		50.4			66.7		
Approach LOS	C		D			E		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.0	62.0				75.0		45.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	8.0	57.0				70.0		40.0
Max Q Clear Time (g_c+I1), s	0.0	0.0				0.0		0.0
Green Ext Time (p_c), s	0.0	0.0				0.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			55.9					
HCM 2010 LOS			E					

2022 Build Traffic Volumes

Weekday Peak AM Hour

6: NYS Route 9D & Beekman Street/W. Church Street

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	4	148	3	17	11	26	531	0	1	459	457
Future Volume (vph)	153	4	148	3	17	11	26	531	0	1	459	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	80		0	85		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.951						0.925	
Flt Protected		0.953			0.995		0.950			0.950		
Satd. Flow (prot)	0	1757	1567	0	1851	0	1823	1919	0	1743	1697	0
Flt Permitted		0.707			0.973		0.102			0.357		
Satd. Flow (perm)	0	1304	1567	0	1810	0	196	1919	0	655	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			161		12						66	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			158			388			335	
Travel Time (s)		6.2			3.6			8.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	166	4	161	3	18	12	28	577	0	1	499	497
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	161	0	33	0	28	577	0	1	996	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	83		83	6		83	6	
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Size(ft)	20	43	43	20	43		43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40	40		40		40			40		
Detector 2 Size(ft)		43	43		43		43			43		
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0			0.0		
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak AM Hour
05/09/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	16.0		4.0	16.0	
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
v/c Ratio		0.61	0.35		0.08		0.10	0.50		0.00	1.01	
Control Delay		33.8	6.6		16.4		6.6	11.4		6.0	48.9	
Queue Delay		0.0	0.0		0.0		0.0	0.7		0.0	0.0	
Total Delay		33.8	6.6		16.4		6.6	12.1		6.0	48.9	
Queue Length 50th (ft)		54	0		6		3	96		0	257	
Queue Length 95th (ft)		130	42		28		15	326		2	#858	
Internal Link Dist (ft)		193			78			308			255	
Turn Bay Length (ft)			95				80			85		
Base Capacity (vph)		637	848		890		327	1154		535	991	
Starvation Cap Reductn		0	0		0		0	274		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.27	0.19		0.04		0.09	0.66		0.00	1.01	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 65.1

Natural Cycle: 90

Control Type: Semi Act-Uncoord

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: NYS Route 9D & Beekman Street/W. Church Street

13 s	41 s	36 s
13 s	41 s	36 s

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak AM Hour

05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	4	148	3	17	11	26	531	0	1	459	457
Future Volume (veh/h)	153	4	148	3	17	11	26	531	0	1	459	457
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1844	1844	1995	1956	1995	1919	1919	0	1835	1835	1872
Adj Flow Rate, veh/h	166	4	161	3	18	12	28	577	0	1	499	497
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	350	6	273	70	192	115	158	1131	0	454	478	476
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.59	0.00	0.00	0.57	0.57
Sat Flow, veh/h	1370	33	1568	49	1105	659	1827	1919	0	1747	845	841
Grp Volume(v), veh/h	170	0	161	33	0	0	28	577	0	1	0	996
Grp Sat Flow(s),veh/h/ln	1403	0	1568	1813	0	0	1827	1919	0	1747	0	1686
Q Serve(g_s), s	6.2	0.0	6.0	0.0	0.0	0.0	0.4	11.2	0.0	0.0	0.0	36.0
Cycle Q Clear(g_c), s	7.1	0.0	6.0	1.0	0.0	0.0	0.4	11.2	0.0	0.0	0.0	36.0
Prop In Lane	0.98		1.00	0.09		0.36	1.00		0.00	1.00		0.50
Lane Grp Cap(c), veh/h	356	0	273	377	0	0	158	1131	0	454	0	954
V/C Ratio(X)	0.48	0.00	0.59	0.09	0.00	0.00	0.18	0.51	0.00	0.00	0.00	1.04
Avail Cap(c_a), veh/h	785	0	764	928	0	0	343	1131	0	671	0	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	0.0	24.2	22.1	0.0	0.0	15.6	7.7	0.0	6.7	0.0	13.8
Incr Delay (d2), s/veh	1.0	0.0	2.0	0.1	0.0	0.0	0.5	1.6	0.0	0.0	0.0	41.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	2.7	0.5	0.0	0.0	0.3	6.4	0.0	0.0	0.0	27.4
LnGrp Delay(d),s/veh	25.5	0.0	26.2	22.2	0.0	0.0	16.1	9.3	0.0	6.7	0.0	55.1
LnGrp LOS	C		C	C			B	A		A		F
Approach Vol, veh/h		331			33			605			997	
Approach Delay, s/veh		25.9			22.2			9.6			55.0	
Approach LOS		C			C			A			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	42.5		16.1	6.6	41.0		16.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	13.2		9.1	2.4	38.0		3.0				
Green Ext Time (p_c), s	0.0	5.9		1.9	0.0	0.0		2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			35.6									
HCM 2010 LOS			D									

2022 Build Traffic Volumes

Weekday Peak AM Hour

7: NYS Route 9D & Beacon City Hall/Main Street

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	4	2	10	7	121	4	433	30	249	356	6
Future Volume (vph)	3	4	2	10	7	121	4	433	30	249	356	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	0		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970				0.850		0.990			0.997	
Flt Protected		0.984			0.972		0.950			0.950		
Satd. Flow (prot)	0	1769	0	0	1883	1647	1796	1872	0	1743	1829	0
Flt Permitted							0.529			0.409		
Satd. Flow (perm)	0	1798	0	0	1937	1647	1000	1872	0	750	1829	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		76			138			182			388	
Travel Time (s)		1.7			3.1			4.1			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	4	2	11	8	132	4	471	33	271	387	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	19	132	4	504	0	271	394	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83	83	83	6		83	6	
Trailing Detector (ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Position(ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Size(ft)	20	43		20	43	43	43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40			40	40	40			40		
Detector 2 Size(ft)		43			43	43	43			43		
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0			0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		8.0	8.0	4.0	4.0	31.0		4.0	36.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	36.0		9.0	41.0	
Total Split (s)	36.0	36.0		36.0	36.0	13.0	13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	14.4%	14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0		31.0	31.0	8.0	8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Max		None	Max	
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	11.0	11.0						11.0				
Pedestrian Calls (#/hr)	0	0						0				
v/c Ratio		0.05			0.07	0.45	0.00	0.42		0.35	0.24	
Control Delay		22.6			23.9	25.3	1.8	7.2		3.3	3.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		22.6			23.9	25.3	1.8	7.2		3.3	3.5	
Queue Length 50th (ft)		2			5	40	0	58		0	0	
Queue Length 95th (ft)		15			25	80	2	194		47	144	
Internal Link Dist (ft)		1			58			102			308	
Turn Bay Length (ft)						70				120		
Base Capacity (vph)		998			1074	300	900	1205		788	1660	
Starvation Cap Reductn		0			0	0	0	0		0	77	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.02	0.44	0.00	0.42		0.34	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 56.3

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Splits and Phases: 7: NYS Route 9D & Beacon City Hall/Main Street

 Ø2	 Ø1	 Ø4
41 s	13 s	36 s
 Ø6	 Ø5	 Ø8
41 s	13 s	36 s

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	2	10	7	121	4	433	30	249	356	6
Future Volume (veh/h)	3	4	2	10	7	121	4	433	30	249	356	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1853	1890	1976	1937	1937	1891	1891	1928	1835	1835	1872
Adj Flow Rate, veh/h	3	4	2	11	8	132	4	471	33	271	387	7
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	117	44	183	110	302	690	1007	71	595	1035	19
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.58	0.58	0.06	0.58	0.58
Sat Flow, veh/h	299	977	364	767	919	1647	1801	1747	122	1747	1797	32
Grp Volume(v), veh/h	9	0	0	19	0	132	4	0	504	271	0	394
Grp Sat Flow(s),veh/h/ln	1640	0	0	1687	0	1647	1801	0	1869	1747	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	9.8	0.0	0.0	7.3
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.5	0.0	0.5	0.0	0.0	9.8	0.0	0.0	7.3
Prop In Lane	0.33		0.22	0.58		1.00	1.00		0.07	1.00		0.02
Lane Grp Cap(c), veh/h	274	0	0	294	0	302	690	0	1077	595	0	1054
V/C Ratio(X)	0.03	0.00	0.00	0.06	0.00	0.44	0.01	0.00	0.47	0.46	0.00	0.37
Avail Cap(c_a), veh/h	852	0	0	906	0	922	806	0	1077	708	0	1054
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	0.0	24.4	0.0	22.6	7.1	0.0	7.7	12.1	0.0	7.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.0	0.0	0.0	1.5	0.5	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.3	0.0	2.1	0.0	0.0	5.3	3.6	0.0	3.9
LnGrp Delay(d),s/veh	24.4	0.0	0.0	24.5	0.0	23.6	7.1	0.0	9.1	12.6	0.0	8.2
LnGrp LOS	C			C		C	A		A	B		A
Approach Vol, veh/h		9			151			508			665	
Approach Delay, s/veh		24.4			23.7			9.1			10.0	
Approach LOS		C			C			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		12.5	9.0	41.0		12.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	11.8		2.3	2.0	9.3		2.5				
Green Ext Time (p_c), s	0.7	1.3		0.9	0.7	1.0		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay				11.3								
HCM 2010 LOS				B								

2022 Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak AM Hour
05/09/2017

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	56	14	7	44	0
Future Volume (vph)	0	56	14	7	44	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	10%			10%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected				0.968		
Satd. Flow (prot)	1561	0	0	1747	1937	0
Flt Permitted				0.968		
Satd. Flow (perm)	1561	0	0	1747	1937	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	206			200	796	
Travel Time (s)	4.7			4.5	18.1	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%
Adj. Flow (vph)	0	68	17	9	54	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	0	0	26	54	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.07	1.07	0.94	0.94
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	56	14	7	44	0
Future Vol, veh/h	0	56	14	7	44	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	10	-10	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	3	0
Mvmt Flow	0	68	17	9	54	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	97	54	54	0	-	0
Stage 1	54	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	8.4	7.2	4.1	-	-	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	860	1004	1564	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	851	1004	1564	-	-	-
Mov Cap-2 Maneuver	851	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	950	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	4.9		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1564	-	1004	-	-	
HCM Lane V/C Ratio	0.011	-	0.068	-	-	
HCM Control Delay (s)	7.3	0	8.8	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

2022 Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak AM Hour
 05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	40	0	17	41	0	68
Future Volume (vph)	40	0	17	41	0	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	3%			-5%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.985		
Satd. Flow (prot)	1817	0	0	1815	1596	0
Flt Permitted				0.985		
Satd. Flow (perm)	1817	0	0	1815	1596	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			236	134	
Travel Time (s)	3.6			5.4	3.0	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	3%	0%	5%	6%	0%	3%
Adj. Flow (vph)	49	0	21	50	0	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	0	71	83	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	4.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	
Traffic Vol, veh/h	40	0	17	41	0	68
Future Vol, veh/h	40	0	17	41	0	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	3	-	-	-5	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	3	0	5	6	0	3
Mvmt Flow	49	0	21	50	0	83
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	49	0	140	49
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	91	-
Critical Hdwy	-	-	4.15	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.245	-	3.5	3.327
Pot Cap-1 Maneuver	-	0	1539	-	858	1017
Stage 1	-	0	-	-	979	-
Stage 2	-	0	-	-	938	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1539	-	846	1017
Mov Cap-2 Maneuver	-	-	-	-	846	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	925	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT		
Capacity (veh/h)	1017	-	1539	-		
HCM Lane V/C Ratio	0.082	-	0.013	-		
HCM Control Delay (s)	8.9	-	7.4	-		
HCM Lane LOS	A	-	A	-		
HCM 95th %tile Q(veh)	0.3	-	0	-		

2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak PM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	6	34	7	3	10	23	772	3	3	735	111
Future Volume (vph)	51	6	34	7	3	10	23	772	3	3	735	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			-1%			0%			-5%	
Storage Length (ft)	0		0	0		0	120		0	120		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.949			0.929			0.999			0.980	
Flt Protected		0.973			0.984		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1650	0	1641	1825	0	1850	1871	0
Flt Permitted		0.973			0.984		0.950			0.950		
Satd. Flow (perm)	0	1754	0	0	1650	0	1641	1825	0	1850	1871	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		833			226			335			948	
Travel Time (s)		18.9			5.1			7.6			21.5	
Confl. Peds. (#/hr)	2		3	2		3	5			5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	4%	0%	0%	11%	10%	4%	0%	0%	2%	2%
Adj. Flow (vph)	54	6	36	7	3	11	24	813	3	3	774	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	21	0	24	816	0	3	891	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	0.97	0.97	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak PM Hour

05/09/2017

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	6	34	7	3	10	23	772	3	3	735	111
Future Vol, veh/h	51	6	34	7	3	10	23	772	3	3	735	111
Conflicting Peds, #/hr	2	0	3	2	0	3	5	0	0	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	-1	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	4	0	0	11	10	4	0	0	2	2
Mvmt Flow	54	6	36	7	3	11	24	813	3	3	774	117
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1715	1712	840	1730	1770	822	896	0	0	821	0	0
Stage 1	843	843	-	868	868	-	-	-	-	-	-	-
Stage 2	872	869	-	862	902	-	-	-	-	-	-	-
Critical Hdwy	6.5	5.9	5.94	6.9	6.3	6.21	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	4.9	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.399	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	96	122	388	77	93	369	725	-	-	817	-	-
Stage 1	416	440	-	367	391	-	-	-	-	-	-	-
Stage 2	403	430	-	370	378	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	89	117	385	66	89	367	723	-	-	815	-	-
Mov Cap-2 Maneuver	216	247	-	179	206	-	-	-	-	-	-	-
Stage 1	401	437	-	353	376	-	-	-	-	-	-	-
Stage 2	374	414	-	329	375	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	26.6			20.9			0.3			0		
HCM LOS	D			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	723	-	-	261	247	815	-	-				
HCM Lane V/C Ratio	0.033	-	-	0.367	0.085	0.004	-	-				
HCM Control Delay (s)	10.2	-	-	26.6	20.9	9.4	-	-				
HCM Lane LOS	B	-	-	D	C	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	1.6	0.3	0	-	-				

2022 Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	83	1	15	122	1	8
Future Volume (vph)	83	1	15	122	1	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-2%			1%	7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.878	
Flt Protected				0.994	0.995	
Satd. Flow (prot)	1917	0	0	1811	1602	0
Flt Permitted				0.994	0.995	
Satd. Flow (perm)	1917	0	0	1811	1602	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	236			833	796	
Travel Time (s)	5.4			18.9	18.1	
Confl. Peds. (#/hr)						3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	10%	3%	0%	0%
Adj. Flow (vph)	92	1	17	136	1	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	93	0	0	153	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.01	1.01	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	83	1	15	122	1	8
Future Vol, veh/h	83	1	15	122	1	8
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	1	7	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	10	3	0	0
Mvmt Flow	92	1	17	136	1	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	93	0	262	96
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	169	-
Critical Hdwy	-	-	4.2	-	7.8	6.9
Critical Hdwy Stg 1	-	-	-	-	6.8	-
Critical Hdwy Stg 2	-	-	-	-	6.8	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1453	-	660	948
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	811	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1449	-	651	946
Mov Cap-2 Maneuver	-	-	-	-	651	-
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	800	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	901	-	-	1449	-	
HCM Lane V/C Ratio	0.011	-	-	0.012	-	
HCM Control Delay (s)	9	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

2022 Build Traffic Volumes

Weekday Peak PM Hour

3: Beekman Street/Beekman Street & The Views Development/W. Main Street

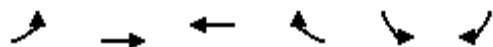
05/09/2017

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	36	0	2	0	3	11	52	332	5	21	64	87
Future Volume (vph)	36	0	2	0	3	11	52	332	5	21	64	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		5%			0%			-1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.892			0.999			0.928	
Flt Protected		0.955						0.993			0.996	
Satd. Flow (prot)	0	1755	0	0	1662	0	0	1817	0	0	1703	0
Flt Permitted		0.955						0.993			0.996	
Satd. Flow (perm)	0	1755	0	0	1662	0	0	1817	0	0	1703	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			162			321			353	
Travel Time (s)		14.5			3.7			7.3			8.0	
Peak Hour Factor	0.53	0.92	0.53	0.92	0.92	0.92	0.53	0.53	0.92	0.92	0.53	0.53
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	25%	1%	2%	2%	2%	6%
Adj. Flow (vph)	68	0	4	0	3	12	98	626	5	23	121	164
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	15	0	0	729	0	0	308	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection																
Int Delay, s/veh	5.2															
Movement	SEL	SET	SER		NWL	NWT	NWR		NEL	NET	NER		SWL	SWT	SWR	
Lane Configurations																
Traffic Vol, veh/h	36	0	2		0	3	11		52	332	5		21	64	87	
Future Vol, veh/h	36	0	2		0	3	11		52	332	5		21	64	87	
Conflicting Peds, #/hr	0	0	0		0	0	0		0	0	0		0	0	0	
Sign Control	Stop	Stop	Stop		Stop	Stop	Stop		Free	Free	Free		Free	Free	Free	
RT Channelized	-	-	None		-	-	None		-	-	None		-	-	None	
Storage Length	-	-	-		-	-	-		-	-	-		-	-	-	
Veh in Median Storage, #	-	0	-		-	0	-		-	0	-		-	0	-	
Grade, %	-	5	-		-	0	-		-	-1	-		-	-2	-	
Peak Hour Factor	53	92	53		92	92	92		53	53	92		92	53	53	
Heavy Vehicles, %	0	2	0		2	2	2		25	1	2		2	2	6	
Mvmt Flow	68	0	4		0	3	12		98	626	5		23	121	164	
Major/Minor	Minor2				Minor1				Major1				Major2			
Conflicting Flow All	1081	1076	203		1075	1156	629		285	0	0		632	0	0	
Stage 1	248	248	-		825	825	-		-	-	-		-	-	-	
Stage 2	833	828	-		250	331	-		-	-	-		-	-	-	
Critical Hdwy	8.1	7.52	6.7		7.12	6.52	6.22		4.35	-	-		4.12	-	-	
Critical Hdwy Stg 1	7.1	6.52	-		6.12	5.52	-		-	-	-		-	-	-	
Critical Hdwy Stg 2	7.1	6.52	-		6.12	5.52	-		-	-	-		-	-	-	
Follow-up Hdwy	3.5	4.018	3.3		3.518	4.018	3.318		2.425	-	-		2.218	-	-	
Pot Cap-1 Maneuver	146	163	819		197	197	482		1156	-	-		951	-	-	
Stage 1	710	655	-		367	387	-		-	-	-		-	-	-	
Stage 2	290	306	-		754	645	-		-	-	-		-	-	-	
Platoon blocked, %										-	-			-	-	
Mov Cap-1 Maneuver	123	138	819		173	166	482		1156	-	-		951	-	-	
Mov Cap-2 Maneuver	123	138	-		173	166	-		-	-	-		-	-	-	
Stage 1	617	636	-		319	336	-		-	-	-		-	-	-	
Stage 2	243	266	-		729	626	-		-	-	-		-	-	-	
Approach	SE				NW				NE				SW			
HCM Control Delay, s	63.2				16				1.1				0.7			
HCM LOS	F				C											
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR									
Capacity (veh/h)	1156	-	-	342	129	951	-	-								
HCM Lane V/C Ratio	0.085	-	-	0.044	0.556	0.024	-	-								
HCM Control Delay (s)	8.4	0	-	16	63.2	8.9	0	-								
HCM Lane LOS	A	A	-	C	F	A	A	-								
HCM 95th %tile Q(veh)	0.3	-	-	0.1	2.7	0.1	-	-								

2022 Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak PM Hour
05/09/2017



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	31	82	59	8	39
Future Volume (vph)	3	31	82	59	8	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		3%	-5%		-8%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.944		0.888	
Flt Protected		0.995			0.992	
Satd. Flow (prot)	0	1862	1737	0	1741	0
Flt Permitted		0.995			0.992	
Satd. Flow (perm)	0	1862	1737	0	1741	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	640		200	
Travel Time (s)		6.0	14.5		4.5	
Confl. Peds. (#/hr)	15					
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	10%	0%	0%	0%
Adj. Flow (vph)	4	39	103	74	10	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	177	0	59	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	0.95	0.95
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	31	82	59	8	39
Future Vol, veh/h	3	31	82	59	8	39
Conflicting Peds, #/hr	15	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-8	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	10	0	0	0
Mvmt Flow	4	39	103	74	10	49
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	191	0	-	0	200	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	46	-
Critical Hdwy	4.1	-	-	-	4.8	5.4
Critical Hdwy Stg 1	-	-	-	-	3.8	-
Critical Hdwy Stg 2	-	-	-	-	3.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1395	-	-	-	867	928
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	1002	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1395	-	-	-	843	916
Mov Cap-2 Maneuver	-	-	-	-	843	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	987	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.7		0		9.3	
HCM LOS					A	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1395	-	-	-	903	
HCM Lane V/C Ratio	0.003	-	-	-	0.065	
HCM Control Delay (s)	7.6	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	48	278	765	68	217	779
Future Volume (vph)	48	278	765	68	217	779
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	90	0		0	215	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1815	0	1778	1872
Flt Permitted	0.950				0.075	
Satd. Flow (perm)	1725	1544	1815	0	140	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	207		948			167
Travel Time (s)	4.7		21.5			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	302	832	74	236	847
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	302	906	0	236	847
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Minimum Split (s)	21.0	9.0	62.0		9.0	45.0
Total Split (s)	35.0	14.0	71.0		14.0	85.0
Total Split (%)	29.2%	11.7%	59.2%		11.7%	70.8%
Maximum Green (s)	30.0	9.0	66.0		9.0	80.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Walk Time (s)	5.0		5.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
v/c Ratio	0.12	0.53	0.91		1.09	0.68
Control Delay	35.9	34.2	38.7		114.2	15.7

2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	35.9	34.2	38.7		114.2	15.7
Queue Length 50th (ft)	31	183	604		~138	366
Queue Length 95th (ft)	65	274	#902		#303	505
Internal Link Dist (ft)	127		868			87
Turn Bay Length (ft)	90				215	
Base Capacity (vph)	431	566	998		216	1248
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	0.12	0.53	0.91		1.09	0.68

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 95
 Control Type: Pretimed
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: NYS Route 9D & Verplanck Avenue



2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

								
Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	48	278	765	68	217	779		
Future Volume (veh/h)	48	278	765	68	217	779		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1816	1816	1835	1872	1872	1872		
Adj Flow Rate, veh/h	52	302	832	74	236	847		
Adj No. of Lanes	1	1	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	432	502	914	81	254	1248		
Arrive On Green	0.25	0.25	0.55	0.55	0.08	0.67		
Sat Flow, veh/h	1730	1544	1661	148	1783	1872		
Grp Volume(v), veh/h	52	302	0	906	236	847		
Grp Sat Flow(s),veh/h/ln	1730	1544	0	1809	1783	1872		
Q Serve(g_s), s	2.8	19.7	0.0	54.2	7.6	33.1		
Cycle Q Clear(g_c), s	2.8	19.7	0.0	54.2	7.6	33.1		
Prop In Lane	1.00	1.00		0.08	1.00			
Lane Grp Cap(c), veh/h	432	502	0	995	254	1248		
V/C Ratio(X)	0.12	0.60	0.00	0.91	0.93	0.68		
Avail Cap(c_a), veh/h	432	502	0	995	254	1248		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	34.8	34.0	0.0	24.3	29.4	12.2		
Incr Delay (d2), s/veh	0.6	5.3	0.0	13.8	40.5	3.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.4	9.1	0.0	30.7	10.6	18.0		
LnGrp Delay(d),s/veh	35.4	39.3	0.0	38.1	69.9	15.2		
LnGrp LOS	D	D		D	E	B		
Approach Vol, veh/h	354		906			1083		
Approach Delay, s/veh	38.7		38.1			27.1		
Approach LOS	D		D			C		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.0	71.0				85.0		35.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	9.0	66.0				80.0		30.0
Max Q Clear Time (g_c+I1), s	0.0	0.0				0.0		0.0
Green Ext Time (p_c), s	0.0	0.0				0.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			33.1					
HCM 2010 LOS			C					

2022 Build Traffic Volumes

Weekday Peak PM Hour

6: NYS Route 9D & Beekman Street/W. Church Street

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	325	6	55	12	3	7	59	467	11	12	637	126
Future Volume (vph)	325	6	55	12	3	7	59	467	11	12	637	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	80		0	85		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.997			0.975	
Flt Protected		0.953			0.974		0.950			0.950		
Satd. Flow (prot)	0	1757	1567	0	1819	0	1823	1913	0	1743	1789	0
Flt Permitted		0.713			0.814		0.091			0.379		
Satd. Flow (perm)	0	1315	1567	0	1520	0	175	1913	0	695	1789	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		8			2			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			158			388			335	
Travel Time (s)		6.2			3.6			8.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	353	7	60	13	3	8	64	508	12	13	692	137
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	360	60	0	24	0	64	520	0	13	829	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	83		83	6		83	6	
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Size(ft)	20	43	43	20	43		43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40	40		40		40			40		
Detector 2 Size(ft)		43	43		43		43			43		
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0			0.0		
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour
05/09/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	16.0		4.0	16.0	
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
v/c Ratio		0.87	0.11		0.05		0.27	0.51		0.03	1.03	
Control Delay		49.2	3.0		15.5		12.4	16.5		9.8	66.9	
Queue Delay		0.0	0.0		0.0		0.0	1.9		0.0	0.0	
Total Delay		49.2	3.0		15.5		12.4	18.3		9.8	66.9	
Queue Length 50th (ft)		181	0		6		16	167		3	~536	
Queue Length 95th (ft)		#328	16		23		35	341		12	#785	
Internal Link Dist (ft)		193			78			308			255	
Turn Bay Length (ft)			95				80			85		
Base Capacity (vph)		504	654		588		259	1023		464	805	
Starvation Cap Reductn		0	0		0		0	337		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.71	0.09		0.04		0.25	0.76		0.03	1.03	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 82.4

Natural Cycle: 90

Control Type: Semi Act-Uncoord

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: NYS Route 9D & Beekman Street/W. Church Street

13 s	41 s	36 s
13 s	41 s	36 s

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	6	55	12	3	7	59	467	11	12	637	126
Future Volume (veh/h)	325	6	55	12	3	7	59	467	11	12	637	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1844	1844	1995	1956	1995	1919	1919	1957	1835	1835	1872
Adj Flow Rate, veh/h	353	7	60	13	3	8	64	508	12	13	692	137
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	447	7	571	75	27	18	152	835	20	314	629	125
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.04	0.45	0.45	0.01	0.42	0.42
Sat Flow, veh/h	996	20	1568	27	73	50	1827	1867	44	1747	1488	295
Grp Volume(v), veh/h	360	0	60	24	0	0	64	0	520	13	0	829
Grp Sat Flow(s),veh/h/ln	1016	0	1568	150	0	0	1827	0	1911	1747	0	1783
Q Serve(g_s), s	0.0	0.0	2.2	0.5	0.0	0.0	1.7	0.0	17.6	0.4	0.0	36.0
Cycle Q Clear(g_c), s	30.0	0.0	2.2	30.5	0.0	0.0	1.7	0.0	17.6	0.4	0.0	36.0
Prop In Lane	0.98		1.00	0.54		0.33	1.00		0.02	1.00		0.17
Lane Grp Cap(c), veh/h	454	0	571	120	0	0	152	0	854	314	0	754
V/C Ratio(X)	0.79	0.00	0.11	0.20	0.00	0.00	0.42	0.00	0.61	0.04	0.00	1.10
Avail Cap(c_a), veh/h	454	0	571	120	0	0	256	0	854	457	0	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	17.9	22.2	0.0	0.0	20.5	0.0	17.9	15.1	0.0	24.6
Incr Delay (d2), s/veh	9.4	0.0	0.1	0.8	0.0	0.0	1.9	0.0	3.2	0.1	0.0	63.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	0.0	0.9	0.4	0.0	0.0	0.9	0.0	10.0	0.2	0.0	30.9
LnGrp Delay(d),s/veh	36.1	0.0	18.0	23.0	0.0	0.0	22.4	0.0	21.1	15.2	0.0	87.9
LnGrp LOS	D		B	C			C		C	B		F
Approach Vol, veh/h		420			24			584			842	
Approach Delay, s/veh		33.5			23.0			21.2			86.8	
Approach LOS		C			C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	43.1		36.0	8.1	41.0		36.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.4	19.6		32.0	3.7	38.0		32.5				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.1	0.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			53.5									
HCM 2010 LOS			D									

2022 Build Traffic Volumes

Weekday Peak PM Hour

7: NYS Route 9D & Beacon City Hall/Main Street

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	8	1	23	2	155	1	382	44	256	442	1
Future Volume (vph)	1	8	1	23	2	155	1	382	44	256	442	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	0		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988				0.850		0.984				
Flt Protected		0.995			0.956		0.950			0.950		
Satd. Flow (prot)	0	1822	0	0	1852	1647	1796	1860	0	1743	1835	0
Flt Permitted		0.964					0.461			0.432		
Satd. Flow (perm)	0	1765	0	0	1937	1647	872	1860	0	793	1835	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		76			138			182			388	
Travel Time (s)		1.7			3.1			4.1			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	9	1	25	2	168	1	415	48	278	480	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	27	168	1	463	0	278	481	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83	83	83	6		83	6	
Trailing Detector (ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Position(ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Size(ft)	20	43		20	43	43	43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40			40	40	40			40		
Detector 2 Size(ft)		43			43	43	43			43		
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0			0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		8.0	8.0	4.0	4.0	31.0		4.0	36.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	36.0		9.0	41.0	
Total Split (s)	36.0	36.0		36.0	36.0	13.0	13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	14.4%	14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0		31.0	31.0	8.0	8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Max		None	Max	
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	11.0	11.0						11.0				
Pedestrian Calls (#/hr)	0	0						0				
v/c Ratio		0.06			0.10	0.48	0.00	0.40		0.36	0.31	
Control Delay		25.3			26.1	24.3	3.0	8.5		4.3	4.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		25.3			26.1	24.3	3.0	8.5		4.3	4.7	
Queue Length 50th (ft)		3			8	52	0	52		0	0	
Queue Length 95th (ft)		17			31	99	1	176		49	186	
Internal Link Dist (ft)		1			58			102			308	
Turn Bay Length (ft)						70				120		
Base Capacity (vph)		936			1026	354	782	1145		782	1566	
Starvation Cap Reductn		0			0	0	0	0		0	71	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.03	0.47	0.00	0.40		0.36	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 59.2

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Splits and Phases: 7: NYS Route 9D & Beacon City Hall/Main Street

 Ø2	 Ø1	 Ø4
41 s	13 s	36 s
 Ø6	 Ø5	 Ø8
41 s	13 s	36 s

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour

05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	8	1	23	2	155	1	382	44	256	442	1
Future Volume (veh/h)	1	8	1	23	2	155	1	382	44	256	442	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1853	1890	1976	1937	1937	1891	1891	1928	1835	1835	1872
Adj Flow Rate, veh/h	1	9	1	25	2	168	1	415	48	278	480	1
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	196	20	278	18	308	619	955	110	619	1050	2
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.57	0.57	0.06	0.57	0.57
Sat Flow, veh/h	51	1583	163	1352	148	1647	1801	1664	192	1747	1830	4
Grp Volume(v), veh/h	11	0	0	27	0	168	1	0	463	278	0	481
Grp Sat Flow(s),veh/h/ln	1797	0	0	1500	0	1647	1801	0	1857	1747	0	1834
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	1.8	0.0	0.0	8.9	0.0	0.0	9.5
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.9	0.0	1.8	0.0	0.0	8.9	0.0	0.0	9.5
Prop In Lane	0.09		0.09	0.93		1.00	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	285	0	0	296	0	308	619	0	1065	619	0	1052
V/C Ratio(X)	0.04	0.00	0.00	0.09	0.00	0.54	0.00	0.00	0.43	0.45	0.00	0.46
Avail Cap(c_a), veh/h	929	0	0	845	0	918	734	0	1065	731	0	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	0.0	24.5	0.0	23.1	8.3	0.0	7.6	11.5	0.0	7.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	1.5	0.0	0.0	1.3	0.5	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.4	0.0	0.9	0.0	0.0	4.9	3.6	0.0	5.1
LnGrp Delay(d),s/veh	24.3	0.0	0.0	24.6	0.0	24.6	8.3	0.0	8.9	12.0	0.0	9.2
LnGrp LOS	C			C		C	A		A	B		A
Approach Vol, veh/h		11			195			464			759	
Approach Delay, s/veh		24.3			24.6			8.9			10.2	
Approach LOS		C			C			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		12.8	9.0	41.0		12.8				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	10.9		2.3	2.0	11.5		3.8				
Green Ext Time (p_c), s	0.7	1.2		1.1	0.7	1.2		1.1				
Intersection Summary												
HCM 2010 Ctrl Delay				11.8								
HCM 2010 LOS				B								

2022 Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak PM Hour
05/09/2017

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	30	55	8	17	0
Future Volume (vph)	0	30	55	8	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	10%			10%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected				0.958		
Satd. Flow (prot)	1561	0	0	1729	1995	0
Flt Permitted				0.958		
Satd. Flow (perm)	1561	0	0	1729	1995	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	206			200	796	
Travel Time (s)	4.7			4.5	18.1	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	38	69	10	21	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	0	79	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.07	1.07	0.94	0.94
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	30	55	8	17	0
Future Vol, veh/h	0	30	55	8	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	10	-10	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	38	69	10	21	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	169	21	21	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	8.4	7.2	4.1	-	-	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	752	1056	1608	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	720	1056	1608	-	-	-
Mov Cap-2 Maneuver	720	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	6.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1608	-	1056	-	-	
HCM Lane V/C Ratio	0.043	-	0.036	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

2022 Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak PM Hour
 05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	47	0	67	70	0	36
Future Volume (vph)	47	0	67	70	0	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	3%			-5%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.976		
Satd. Flow (prot)	1872	0	0	1872	1644	0
Flt Permitted				0.976		
Satd. Flow (perm)	1872	0	0	1872	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			236	134	
Travel Time (s)	3.6			5.4	3.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	2%	0%	0%
Adj. Flow (vph)	52	0	74	78	0	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	0	152	40	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

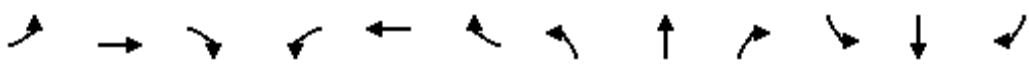
Weekday Peak PM Hour
 05/09/2017

Intersection						
Int Delay, s/veh	3.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	
Traffic Vol, veh/h	47	0	67	70	0	36
Future Vol, veh/h	47	0	67	70	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	3	-	-	-5	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	52	0	74	78	0	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	52	0	279	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	227	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	1560	-	715	1021
Stage 1	-	0	-	-	976	-
Stage 2	-	0	-	-	815	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1560	-	679	1021
Mov Cap-2 Maneuver	-	-	-	-	679	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	774	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.6		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT		
Capacity (veh/h)	1021	-	1560	-		
HCM Lane V/C Ratio	0.039	-	0.048	-		
HCM Control Delay (s)	8.7	-	7.4	-		
HCM Lane LOS	A	-	A	-		
HCM 95th %tile Q(veh)	0.1	-	0.1	-		

2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↖		↗	↖	
Traffic Volume (vph)	81	9	21	1	4	4	13	682	1	1	895	81
Future Volume (vph)	81	9	21	1	4	4	13	682	1	1	895	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			-1%			0%			-5%	
Storage Length (ft)	0		0	0		0	120		0	120		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00							
Frt		0.974			0.939						0.988	
Flt Protected		0.965			0.995		0.950			0.950		
Satd. Flow (prot)	0	1813	0	0	1784	0	1543	1810	0	1850	1830	0
Flt Permitted		0.777			0.976		0.140			0.301		
Satd. Flow (perm)	0	1451	0	0	1749	0	227	1810	0	586	1830	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5						11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		833			226			335			948	
Travel Time (s)		18.9			5.1			7.6			21.5	
Confl. Peds. (#/hr)	3			3			2			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%	0%	0%	0%	0%	0%	17%	5%	0%	0%	5%	7%
Adj. Flow (vph)	93	10	24	1	5	5	15	784	1	1	1029	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	0	0	11	0	15	785	0	1	1122	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	0.97	0.97	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83		83	83		83	83	
Trailing Detector (ft)	0	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	0	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	20	40		20	40		40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		43			43		43	43		43	43	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour

05/09/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0		65.0	65.0		65.0	65.0	
Total Split (%)	27.8%	27.8%		27.8%	27.8%		72.2%	72.2%		72.2%	72.2%	
Maximum Green (s)	20.0	20.0		20.0	20.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
v/c Ratio		0.60			0.04		0.09	0.58		0.00	0.82	
Control Delay		43.4			23.5		5.5	7.8		4.0	15.1	
Queue Delay		0.0			0.0		0.0	4.1		0.0	0.0	
Total Delay		43.4			23.5		5.5	12.0		4.0	15.1	
Queue Length 50th (ft)		61			3		2	158		0	327	
Queue Length 95th (ft)		105			16		10	295		2	#699	
Internal Link Dist (ft)		753			146			255			868	
Turn Bay Length (ft)							120			120		
Base Capacity (vph)		332			393		170	1356		438	1374	
Starvation Cap Reductn		0			0		0	477		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.38			0.03		0.09	0.89		0.00	0.82	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 89.9

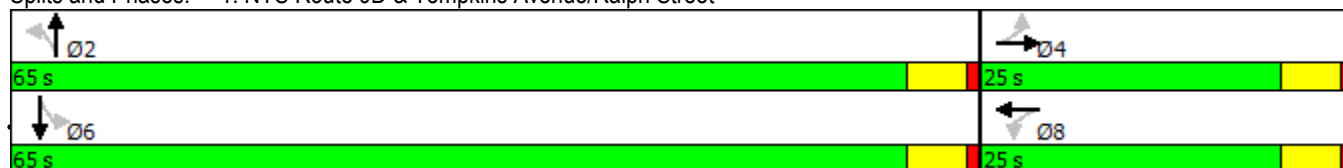
Natural Cycle: 75

Control Type: Semi Act-Uncoord

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 9D & Tompkins Avenue/Ralph Street



2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak AM Hour
05/09/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↖		↗	↖	
Traffic Volume (veh/h)	81	9	21	1	4	4	13	682	1	1	895	81
Future Volume (veh/h)	81	9	21	1	4	4	13	682	1	1	895	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1928	1928	1928	1910	1910	1910	1624	1810	1900	1948	1852	1948
Adj Flow Rate, veh/h	93	10	24	1	5	5	15	784	1	1	1029	93
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	17	5	5	0	5	5
Cap, veh/h	198	19	32	55	102	89	256	1374	2	505	1273	115
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1058	167	286	47	904	793	436	1807	2	718	1674	151
Grp Volume(v), veh/h	127	0	0	11	0	0	15	0	785	1	0	1122
Grp Sat Flow(s),veh/h/ln	1511	0	0	1744	0	0	436	0	1809	718	0	1825
Q Serve(g_s), s	5.9	0.0	0.0	0.0	0.0	0.0	1.7	0.0	14.5	0.0	0.0	30.2
Cycle Q Clear(g_c), s	6.4	0.0	0.0	0.4	0.0	0.0	31.9	0.0	14.5	14.5	0.0	30.2
Prop In Lane	0.73		0.19	0.09		0.45	1.00		0.00	1.00		0.08
Lane Grp Cap(c), veh/h	249	0	0	246	0	0	256	0	1376	505	0	1388
V/C Ratio(X)	0.51	0.00	0.00	0.04	0.00	0.00	0.06	0.00	0.57	0.00	0.00	0.81
Avail Cap(c_a), veh/h	460	0	0	486	0	0	256	0	1376	505	0	1388
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.8	0.0	0.0	31.3	0.0	0.0	15.8	0.0	4.0	7.1	0.0	5.9
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.1	0.0	0.0	0.4	0.0	1.7	0.0	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	0.2	0.0	0.0	0.2	0.0	7.6	0.0	0.0	16.6
LnGrp Delay(d),s/veh	35.5	0.0	0.0	31.3	0.0	0.0	16.2	0.0	5.7	7.1	0.0	11.0
LnGrp LOS	D			C			B		A	A		B
Approach Vol, veh/h		127			11			800			1123	
Approach Delay, s/veh		35.5			31.3			5.9			11.0	
Approach LOS		D			C			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.0		13.9		65.0		13.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		60.0		20.0		60.0		20.0				
Max Q Clear Time (g_c+I1), s		33.9		8.4		32.2		2.4				
Green Ext Time (p_c), s		17.0		0.4		17.8		0.6				
Intersection Summary												
HCM 2010 Ctrl Delay				10.7								
HCM 2010 LOS				B								

2022 Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	95	2	42	30	0	4
Future Volume (vph)	95	2	42	30	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-2%			1%	7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.998				0.865	
Flt Protected				0.972		
Satd. Flow (prot)	1808	0	0	1756	1586	0
Flt Permitted				0.972		
Satd. Flow (perm)	1808	0	0	1756	1586	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	236			833	796	
Travel Time (s)	5.4			18.9	18.1	
Confl. Peds. (#/hr)			2			1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	0%	0%	11%	0%	0%
Adj. Flow (vph)	116	2	51	37	0	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	118	0	0	88	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.01	1.01	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	95	2	42	30	0	4
Future Vol, veh/h	95	2	42	30	0	4
Conflicting Peds, #/hr	0	0	2	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	1	7	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	0	0	11	0	0
Mvmt Flow	116	2	51	37	0	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	120	0	258	120
Stage 1	-	-	-	-	119	-
Stage 2	-	-	-	-	139	-
Critical Hdwy	-	-	4.1	-	7.8	6.9
Critical Hdwy Stg 1	-	-	-	-	6.8	-
Critical Hdwy Stg 2	-	-	-	-	6.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1480	-	665	915
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	846	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1479	-	641	913
Mov Cap-2 Maneuver	-	-	-	-	641	-
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	816	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		4.4		9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	913	-	-	1479	-	
HCM Lane V/C Ratio	0.005	-	-	0.035	-	
HCM Control Delay (s)	9	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.1	-	

2022 Build Traffic Volumes

Weekday Peak AM Hour

3: Beekman Street/Beekman Street & The Views Development/W. Main Street

05/09/2017

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	0	2	0	4	15	14	160	1	4	182	353
Future Volume (vph)	20	0	2	0	4	15	14	160	1	4	182	353
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		5%			0%			-1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								1.00				
Frt		0.990			0.892			0.999			0.911	
Flt Protected		0.956						0.996				
Satd. Flow (prot)	0	1753	0	0	1662	0	0	1728	0	0	1731	0
Flt Permitted		0.728						0.933			0.998	
Satd. Flow (perm)	0	1335	0	0	1662	0	0	1618	0	0	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			16			1			229	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			137			321			353	
Travel Time (s)		14.5			3.1			7.3			8.0	
Confl. Peds. (#/hr)							1					
Peak Hour Factor	0.83	0.92	0.83	0.92	0.92	0.92	0.83	0.83	0.92	0.92	0.83	0.83
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	67%	5%	2%	2%	1%	1%
Adj. Flow (vph)	24	0	2	0	4	16	17	193	1	4	219	425
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	20	0	0	211	0	0	648	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0		65.0	65.0		65.0	65.0	
Total Split (%)	27.8%	27.8%		27.8%	27.8%		72.2%	72.2%		72.2%	72.2%	
Maximum Green (s)	20.0	20.0		20.0	20.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
v/c Ratio		0.09			0.06			0.28			0.69	
Control Delay		8.1			8.8			5.6			8.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.1			8.8			5.6			8.2	
Queue Length 50th (ft)		0			1			16			37	
Queue Length 95th (ft)		14			13			35			78	
Internal Link Dist (ft)		560			57			241			273	
Turn Bay Length (ft)												
Base Capacity (vph)		903			1119			1618			1727	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.03			0.02			0.13			0.38	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 30.7

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

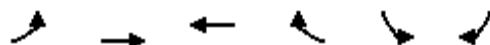
Splits and Phases: 3: Beekman Street/Beekman Street & The Views Development/W. Main Street

 Ø2	 Ø4
25 s	65 s
 Ø6	 Ø8
25 s	65 s

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	20	0	2	0	4	15	14	160	1	4	182	353
Future Volume (veh/h)	20	0	2	0	4	15	14	160	1	4	182	353
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1852	1852	1852	1900	1863	1900	1910	1736	1910	1919	1900	1919
Adj Flow Rate, veh/h	24	0	2	0	4	16	17	193	1	4	219	425
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.83	0.92	0.83	0.92	0.92	0.92	0.83	0.83	0.92	0.92	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	1	1	1
Cap, veh/h	359	9	13	0	40	162	145	921	5	113	331	633
Arrive On Green	0.12	0.00	0.12	0.00	0.12	0.12	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1172	70	104	0	326	1306	43	1625	8	2	583	1116
Grp Volume(v), veh/h	26	0	0	0	0	20	211	0	0	648	0	0
Grp Sat Flow(s),veh/h/ln	1346	0	0	0	0	1632	1676	0	0	1702	0	0
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.0	0.0	0.4	1.9	0.0	0.0	8.6	0.0	0.0
Prop In Lane	0.92		0.08	0.00		0.80	0.08		0.00	0.01		0.66
Lane Grp Cap(c), veh/h	381	0	0	0	0	202	1070	0	0	1077	0	0
V/C Ratio(X)	0.07	0.00	0.00	0.00	0.00	0.10	0.20	0.00	0.00	0.60	0.00	0.00
Avail Cap(c_a), veh/h	1070	0	0	0	0	1010	3083	0	0	3265	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	0.0	0.0	12.6	3.5	0.0	0.0	4.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.0	0.0	0.2	0.9	0.0	0.0	3.9	0.0	0.0
LnGrp Delay(d),s/veh	12.8	0.0	0.0	0.0	0.0	12.8	3.5	0.0	0.0	5.4	0.0	0.0
LnGrp LOS	B					B	A			A		
Approach Vol, veh/h		26			20			211			648	
Approach Delay, s/veh		12.8			12.8			3.5			5.4	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.0		23.3		9.0		23.3				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		20.0		60.0		20.0		60.0				
Max Q Clear Time (g_c+I1), s		2.4		3.9		2.7		10.6				
Green Ext Time (p_c), s		0.1		7.8		0.1		7.7				
Intersection Summary												
HCM 2010 Ctrl Delay			5.4									
HCM 2010 LOS			A									

2022 Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak AM Hour
05/09/2017



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	9	357	14	14	86
Future Volume (vph)	7	9	357	14	14	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		3%	-5%		-8%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.884	
Flt Protected		0.978			0.993	
Satd. Flow (prot)	0	1830	1919	0	1691	0
Flt Permitted		0.978			0.993	
Satd. Flow (perm)	0	1830	1919	0	1691	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	640		200	
Travel Time (s)		6.0	14.5		4.5	
Confl. Peds. (#/hr)	34			1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	1%	0%	0%	3%
Adj. Flow (vph)	9	11	435	17	17	105
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	20	452	0	122	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	0.95	0.95
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	9	357	14	14	86
Future Vol, veh/h	7	9	357	14	14	86
Conflicting Peds, #/hr	34	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-8	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	1	0	0	3
Mvmt Flow	9	11	435	17	17	105
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	486	0	-	0	506	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	4.1	-	-	-	4.8	5.43
Critical Hdwy Stg 1	-	-	-	-	3.8	-
Critical Hdwy Stg 2	-	-	-	-	3.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	1087	-	-	-	663	651
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1087	-	-	-	621	633
Mov Cap-2 Maneuver	-	-	-	-	621	-
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	975	-
Approach	EB		WB		SB	
HCM Control Delay, s	3.6		0		12.1	
HCM LOS					B	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1087	-	-	-	631	
HCM Lane V/C Ratio	0.008	-	-	-	0.193	
HCM Control Delay (s)	8.3	0	-	-	12.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	69	215	671	75	248	885
Future Volume (vph)	69	215	671	75	248	885
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	90	0		0	215	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.986			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1809	0	1778	1872
Flt Permitted	0.950				0.066	
Satd. Flow (perm)	1725	1544	1809	0	124	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	207		948			167
Travel Time (s)	4.7		21.5			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	234	729	82	270	962
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	234	811	0	270	962
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Minimum Split (s)	21.0	9.0	55.0		9.0	45.0
Total Split (s)	40.0	19.0	61.0		19.0	80.0
Total Split (%)	33.3%	15.8%	50.8%		15.8%	66.7%
Maximum Green (s)	35.0	14.0	56.0		14.0	75.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Walk Time (s)	5.0		5.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
v/c Ratio	0.15	0.34	0.96		1.00	0.82
Control Delay	32.5	23.1	54.5		88.9	24.9

2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	32.5	23.1	54.5		88.9	24.9
Queue Length 50th (ft)	43	115	593		159	537
Queue Length 95th (ft)	82	178	#869		#338	751
Internal Link Dist (ft)	127		868			87
Turn Bay Length (ft)	90				215	
Base Capacity (vph)	503	694	844		270	1170
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	0.34	0.96		1.00	0.82

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 85
 Control Type: Pretimed
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: NYS Route 9D & Verplanck Avenue



2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak AM Hour
05/09/2017

								
Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	69	215	671	75	248	885		
Future Volume (veh/h)	69	215	671	75	248	885		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1816	1816	1835	1872	1872	1872		
Adj Flow Rate, veh/h	75	234	729	82	270	962		
Adj No. of Lanes	1	1	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	504	630	756	85	289	1170		
Arrive On Green	0.29	0.29	0.47	0.47	0.12	0.63		
Sat Flow, veh/h	1730	1544	1620	182	1783	1872		
Grp Volume(v), veh/h	75	234	0	811	270	962		
Grp Sat Flow(s),veh/h/ln	1730	1544	0	1803	1783	1872		
Q Serve(g_s), s	3.9	12.7	0.0	52.3	12.5	47.6		
Cycle Q Clear(g_c), s	3.9	12.7	0.0	52.3	12.5	47.6		
Prop In Lane	1.00	1.00		0.10	1.00			
Lane Grp Cap(c), veh/h	504	630	0	841	289	1170		
V/C Ratio(X)	0.15	0.37	0.00	0.96	0.94	0.82		
Avail Cap(c_a), veh/h	504	630	0	841	289	1170		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.5	24.8	0.0	31.0	36.0	17.4		
Incr Delay (d2), s/veh	0.6	1.7	0.0	23.4	38.8	6.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.9	5.7	0.0	31.4	12.0	26.5		
LnGrp Delay(d),s/veh	32.1	26.4	0.0	54.5	74.8	23.9		
LnGrp LOS	C	C		D	E	C		
Approach Vol, veh/h	309		811			1232		
Approach Delay, s/veh	27.8		54.5			35.1		
Approach LOS	C		D			D		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.0	61.0				80.0		40.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	14.0	56.0				75.0		35.0
Max Q Clear Time (g_c+I1), s	0.0	0.0				0.0		0.0
Green Ext Time (p_c), s	0.0	0.0				0.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			40.8					
HCM 2010 LOS			D					

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	4	148	3	17	11	26	531	0	1	459	457
Future Volume (vph)	153	4	148	3	17	11	26	531	0	1	459	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	80		0	85		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.951						0.925	
Flt Protected		0.953			0.995		0.950			0.950		
Satd. Flow (prot)	0	1757	1567	0	1851	0	1823	1919	0	1743	1697	0
Flt Permitted		0.707			0.973		0.093			0.362		
Satd. Flow (perm)	0	1304	1567	0	1810	0	178	1919	0	664	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			161		12						72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			158			388			335	
Travel Time (s)		6.2			3.6			8.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	166	4	161	3	18	12	28	577	0	1	499	497
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	161	0	33	0	28	577	0	1	996	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	83		83	6		83	6	
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Size(ft)	20	43	43	20	43		43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40	40		40		40			40		
Detector 2 Size(ft)		43	43		43		43			43		
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0			0.0		
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak AM Hour
05/09/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	16.0		4.0	16.0	
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	32.0	32.0	32.0	32.0	32.0		13.0	45.0		13.0	45.0	
Total Split (%)	35.6%	35.6%	35.6%	35.6%	35.6%		14.4%	50.0%		14.4%	50.0%	
Maximum Green (s)	27.0	27.0	27.0	27.0	27.0		8.0	40.0		8.0	40.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
v/c Ratio		0.63	0.36		0.09		0.11	0.49		0.00	0.97	
Control Delay		36.6	6.9		17.5		6.7	11.0		6.0	40.1	
Queue Delay		0.0	0.0		0.0		0.0	0.8		0.0	41.3	
Total Delay		36.6	6.9		17.5		6.7	11.8		6.0	81.4	
Queue Length 50th (ft)		60	0		6		3	100		0	264	
Queue Length 95th (ft)		137	44		30		15	330		2	#880	
Internal Link Dist (ft)		193			78			308			255	
Turn Bay Length (ft)			95				80			85		
Base Capacity (vph)		517	718		725		306	1189		542	1027	
Starvation Cap Reductn		0	0		0		0	330		0	170	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.33	0.22		0.05		0.09	0.67		0.00	1.16	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 69.7

Natural Cycle: 90

Control Type: Semi Act-Uncoord

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: NYS Route 9D & Beekman Street/W. Church Street

13 s	45 s	32 s
13 s	45 s	32 s

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

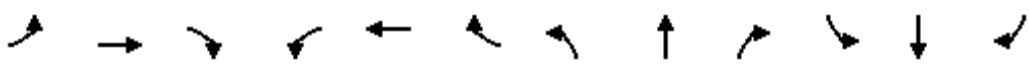
Weekday Peak AM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	4	148	3	17	11	26	531	0	1	459	457
Future Volume (veh/h)	153	4	148	3	17	11	26	531	0	1	459	457
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1844	1844	1995	1956	1995	1919	1919	0	1835	1835	1872
Adj Flow Rate, veh/h	166	4	161	3	18	12	28	577	0	1	499	497
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	336	6	264	66	186	111	150	1171	0	471	496	494
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.61	0.00	0.00	0.59	0.59
Sat Flow, veh/h	1371	33	1568	49	1105	659	1827	1919	0	1747	845	841
Grp Volume(v), veh/h	170	0	161	33	0	0	28	577	0	1	0	996
Grp Sat Flow(s),veh/h/ln	1404	0	1568	1813	0	0	1827	1919	0	1747	0	1686
Q Serve(g_s), s	6.7	0.0	6.5	0.0	0.0	0.0	0.4	11.4	0.0	0.0	0.0	40.0
Cycle Q Clear(g_c), s	7.7	0.0	6.5	1.0	0.0	0.0	0.4	11.4	0.0	0.0	0.0	40.0
Prop In Lane	0.98		1.00	0.09		0.36	1.00		0.00	1.00		0.50
Lane Grp Cap(c), veh/h	341	0	264	363	0	0	150	1171	0	471	0	990
V/C Ratio(X)	0.50	0.00	0.61	0.09	0.00	0.00	0.19	0.49	0.00	0.00	0.00	1.01
Avail Cap(c_a), veh/h	653	0	621	764	0	0	320	1171	0	674	0	990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	0.0	26.2	24.0	0.0	0.0	17.0	7.4	0.0	6.5	0.0	14.1
Incr Delay (d2), s/veh	1.1	0.0	2.3	0.1	0.0	0.0	0.6	1.5	0.0	0.0	0.0	30.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	3.0	0.5	0.0	0.0	0.3	6.4	0.0	0.0	0.0	26.4
LnGrp Delay(d),s/veh	27.8	0.0	28.5	24.1	0.0	0.0	17.6	8.9	0.0	6.5	0.0	44.1
LnGrp LOS	C		C	C			B	A		A		F
Approach Vol, veh/h		331			33			605			997	
Approach Delay, s/veh		28.1			24.1			9.3			44.1	
Approach LOS		C			C			A			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	46.6		16.5	6.6	45.0		16.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	40.0		27.0	8.0	40.0		27.0				
Max Q Clear Time (g_c+I1), s	2.0	13.4		9.7	2.4	42.0		3.0				
Green Ext Time (p_c), s	0.0	6.1		1.8	0.0	0.0		2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			30.4									
HCM 2010 LOS			C									

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	3	4	2	10	7	121	4	433	30	249	356	6
Future Volume (vph)	3	4	2	10	7	121	4	433	30	249	356	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	0		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970				0.850		0.990			0.997	
Flt Protected		0.984			0.972		0.950			0.950		
Satd. Flow (prot)	0	1769	0	0	1883	1647	1796	1872	0	1743	1829	0
Flt Permitted							0.529			0.409		
Satd. Flow (perm)	0	1798	0	0	1937	1647	1000	1872	0	750	1829	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		76			138			182			388	
Travel Time (s)		1.7			3.1			4.1			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	4	2	11	8	132	4	471	33	271	387	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	19	132	4	504	0	271	394	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83	83	83	6		83	6	
Trailing Detector (ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Position(ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Size(ft)	20	43		20	43	43	43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40			40	40	40			40		
Detector 2 Size(ft)		43			43	43	43			43		
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0			0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		8.0	8.0	4.0	4.0	31.0		4.0	36.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	36.0		9.0	41.0	
Total Split (s)	36.0	36.0		36.0	36.0	13.0	13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	14.4%	14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0		31.0	31.0	8.0	8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Max		None	Max	
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	11.0	11.0						11.0				
Pedestrian Calls (#/hr)	0	0						0				
v/c Ratio		0.05			0.07	0.45	0.00	0.42		0.35	0.24	
Control Delay		22.6			23.9	25.3	1.8	7.2		3.3	3.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		22.6			23.9	25.3	1.8	7.2		3.3	3.5	
Queue Length 50th (ft)		2			5	40	0	58		0	0	
Queue Length 95th (ft)		15			25	80	2	194		47	144	
Internal Link Dist (ft)		1			58			102			308	
Turn Bay Length (ft)						70				120		
Base Capacity (vph)		998			1074	300	900	1205		788	1660	
Starvation Cap Reductn		0			0	0	0	0		0	77	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.02	0.44	0.00	0.42		0.34	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 56.3

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Splits and Phases: 7: NYS Route 9D & Beacon City Hall/Main Street

 Ø2	 Ø1	 Ø4
41 s	13 s	36 s
 Ø6	 Ø5	 Ø8
41 s	13 s	36 s

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak AM Hour

05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	2	10	7	121	4	433	30	249	356	6
Future Volume (veh/h)	3	4	2	10	7	121	4	433	30	249	356	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1853	1890	1976	1937	1937	1891	1891	1928	1835	1835	1872
Adj Flow Rate, veh/h	3	4	2	11	8	132	4	471	33	271	387	7
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	117	44	183	110	302	690	1007	71	595	1035	19
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.58	0.58	0.06	0.58	0.58
Sat Flow, veh/h	299	977	364	767	919	1647	1801	1747	122	1747	1797	32
Grp Volume(v), veh/h	9	0	0	19	0	132	4	0	504	271	0	394
Grp Sat Flow(s),veh/h/ln	1640	0	0	1687	0	1647	1801	0	1869	1747	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	9.8	0.0	0.0	7.3
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.5	0.0	0.5	0.0	0.0	9.8	0.0	0.0	7.3
Prop In Lane	0.33		0.22	0.58		1.00	1.00		0.07	1.00		0.02
Lane Grp Cap(c), veh/h	274	0	0	294	0	302	690	0	1077	595	0	1054
V/C Ratio(X)	0.03	0.00	0.00	0.06	0.00	0.44	0.01	0.00	0.47	0.46	0.00	0.37
Avail Cap(c_a), veh/h	852	0	0	906	0	922	806	0	1077	708	0	1054
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	0.0	24.4	0.0	22.6	7.1	0.0	7.7	12.1	0.0	7.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.0	0.0	0.0	1.5	0.5	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.3	0.0	2.1	0.0	0.0	5.3	3.6	0.0	3.9
LnGrp Delay(d),s/veh	24.4	0.0	0.0	24.5	0.0	23.6	7.1	0.0	9.1	12.6	0.0	8.2
LnGrp LOS	C			C		C	A		A	B		A
Approach Vol, veh/h		9			151			508			665	
Approach Delay, s/veh		24.4			23.7			9.1			10.0	
Approach LOS		C			C			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		12.5	9.0	41.0		12.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	11.8		2.3	2.0	9.3		2.5				
Green Ext Time (p_c), s	0.7	1.3		0.9	0.7	1.0		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay				11.3								
HCM 2010 LOS				B								

2022 Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak AM Hour
05/09/2017

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	56	14	7	44	0
Future Volume (vph)	0	56	14	7	44	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	10%			10%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected				0.968		
Satd. Flow (prot)	1561	0	0	1747	1937	0
Flt Permitted				0.968		
Satd. Flow (perm)	1561	0	0	1747	1937	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	206			200	796	
Travel Time (s)	4.7			4.5	18.1	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%
Adj. Flow (vph)	0	68	17	9	54	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	0	0	26	54	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.07	1.07	0.94	0.94
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	56	14	7	44	0
Future Vol, veh/h	0	56	14	7	44	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	10	-10	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	3	0
Mvmt Flow	0	68	17	9	54	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	97	54	54	0	-	0
Stage 1	54	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	8.4	7.2	4.1	-	-	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	860	1004	1564	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	851	1004	1564	-	-	-
Mov Cap-2 Maneuver	851	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	950	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	4.9		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1564	-	1004	-	-	
HCM Lane V/C Ratio	0.011	-	0.068	-	-	
HCM Control Delay (s)	7.3	0	8.8	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

2022 Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak AM Hour
 05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	40	0	17	41	0	68
Future Volume (vph)	40	0	17	41	0	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	3%			-5%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.985		
Satd. Flow (prot)	1817	0	0	1815	1596	0
Flt Permitted				0.985		
Satd. Flow (perm)	1817	0	0	1815	1596	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			236	134	
Travel Time (s)	3.6			5.4	3.0	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	3%	0%	5%	6%	0%	3%
Adj. Flow (vph)	49	0	21	50	0	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	0	71	83	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

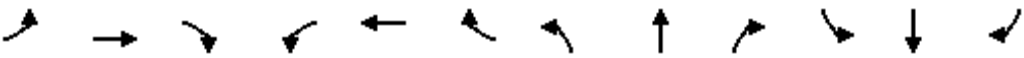
2022 Build Traffic Volumes
9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak AM Hour
05/09/2017

Intersection						
Int Delay, s/veh	4.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	Y	
Traffic Vol, veh/h	40	0	17	41	0	68
Future Vol, veh/h	40	0	17	41	0	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	3	-	-	-5	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	3	0	5	6	0	3
Mvmt Flow	49	0	21	50	0	83
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	49	0	140	49
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	91	-
Critical Hdwy	-	-	4.15	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.245	-	3.5	3.327
Pot Cap-1 Maneuver	-	0	1539	-	858	1017
Stage 1	-	0	-	-	979	-
Stage 2	-	0	-	-	938	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1539	-	846	1017
Mov Cap-2 Maneuver	-	-	-	-	846	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	925	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT		
Capacity (veh/h)	1017	-	1539	-		
HCM Lane V/C Ratio	0.082	-	0.013	-		
HCM Control Delay (s)	8.9	-	7.4	-		
HCM Lane LOS	A	-	A	-		
HCM 95th %tile Q(veh)	0.3	-	0	-		

2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak PM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↗		↗	↗	
Traffic Volume (vph)	51	6	34	7	3	10	23	772	3	3	735	111
Future Volume (vph)	51	6	34	7	3	10	23	772	3	3	735	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			-1%			0%			-5%	
Storage Length (ft)	0		0	0		0	120		0	120		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98							
Frt		0.949			0.929			0.999			0.980	
Flt Protected		0.973			0.984		0.950			0.950		
Satd. Flow (prot)	0	1736	0	0	1626	0	1641	1825	0	1850	1871	0
Flt Permitted		0.814			0.907		0.271			0.305		
Satd. Flow (perm)	0	1448	0	0	1496	0	468	1825	0	594	1871	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			11						18	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		833			226			335			948	
Travel Time (s)		18.9			5.1			7.6			21.5	
Confl. Peds. (#/hr)	2		3	2		3	5			5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	4%	0%	0%	11%	10%	4%	0%	0%	2%	2%
Adj. Flow (vph)	54	6	36	7	3	11	24	813	3	3	774	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	21	0	24	816	0	3	891	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	0.97	0.97	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1		1	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83		0	0		0	0	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Detector 1 Position(ft)	0	-5		0	-5		0	0		0	0	
Detector 1 Size(ft)	20	40		20	40		0	0		0	0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		43			43							
Detector 2 Size(ft)		40			40							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

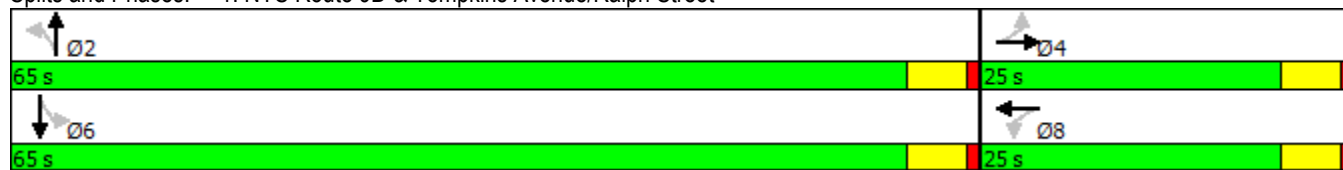
Weekday Peak PM Hour
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0		65.0	65.0		65.0	65.0	
Total Split (%)	27.8%	27.8%		27.8%	27.8%		72.2%	72.2%		72.2%	72.2%	
Maximum Green (s)	20.0	20.0		20.0	20.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
v/c Ratio		0.52			0.12		0.06	0.55		0.01	0.59	
Control Delay		34.7			23.1		3.5	5.9		3.0	6.3	
Queue Delay		0.0			0.0		0.0	2.2		0.0	0.0	
Total Delay		34.7			23.1		3.5	8.1		3.0	6.3	
Queue Length 50th (ft)		35			5		2	137		0	154	
Queue Length 95th (ft)		75			24		10	277		3	312	
Internal Link Dist (ft)		753			146			255			868	
Turn Bay Length (ft)							120			120		
Base Capacity (vph)		362			358		380	1482		482	1523	
Starvation Cap Reductn		0			0		0	499		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.27			0.06		0.06	0.83		0.01	0.59	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 85.8
Natural Cycle: 60
Control Type: Semi Act-Uncoord

Splits and Phases: 1: NYS Route 9D & Tompkins Avenue/Ralph Street



2022 Build Traffic Volumes
1: NYS Route 9D & Tompkins Avenue/Ralph Street

Weekday Peak PM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	6	34	7	3	10	23	772	3	3	735	111
Future Volume (veh/h)	51	6	34	7	3	10	23	772	3	3	735	111
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1928	1900	1928	1910	1805	1910	1727	1827	1900	1948	1909	1948
Adj Flow Rate, veh/h	54	6	36	7	3	11	24	813	3	3	774	117
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	10	4	4	0	2	2
Cap, veh/h	142	18	52	90	43	77	426	1417	5	512	1262	191
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	754	201	573	301	465	843	576	1819	7	697	1620	245
Grp Volume(v), veh/h	96	0	0	21	0	0	24	0	816	3	0	891
Grp Sat Flow(s),veh/h/ln	1529	0	0	1608	0	0	576	0	1826	697	0	1865
Q Serve(g_s), s	3.7	0.0	0.0	0.0	0.0	0.0	1.4	0.0	13.8	0.1	0.0	15.6
Cycle Q Clear(g_c), s	4.6	0.0	0.0	0.9	0.0	0.0	17.0	0.0	13.8	13.9	0.0	15.6
Prop In Lane	0.56		0.37	0.33		0.52	1.00		0.00	1.00		0.13
Lane Grp Cap(c), veh/h	213	0	0	209	0	0	426	0	1422	512	0	1452
V/C Ratio(X)	0.45	0.00	0.00	0.10	0.00	0.00	0.06	0.00	0.57	0.01	0.00	0.61
Avail Cap(c_a), veh/h	464	0	0	456	0	0	426	0	1422	512	0	1452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.8	0.0	0.0	32.2	0.0	0.0	7.2	0.0	3.4	6.2	0.0	3.6
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.2	0.0	0.0	0.3	0.0	1.7	0.0	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.4	0.0	0.0	0.3	0.0	7.5	0.0	0.0	8.5
LnGrp Delay(d),s/veh	35.3	0.0	0.0	32.4	0.0	0.0	7.5	0.0	5.1	6.2	0.0	5.6
LnGrp LOS	D			C			A		A	A		A
Approach Vol, veh/h		96			21			840			894	
Approach Delay, s/veh		35.3			32.4			5.2			5.6	
Approach LOS		D			C			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.0		12.0		65.0		12.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		60.0		20.0		60.0		20.0				
Max Q Clear Time (g_c+I1), s		0.0		6.6		0.0		2.9				
Green Ext Time (p_c), s		0.0		0.4		0.0		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				7.2								
HCM 2010 LOS				A								

2022 Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	83	1	15	122	1	8
Future Volume (vph)	83	1	15	122	1	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-2%			1%	7%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.878	
Flt Protected				0.994	0.995	
Satd. Flow (prot)	1917	0	0	1811	1602	0
Flt Permitted				0.994	0.995	
Satd. Flow (perm)	1917	0	0	1811	1602	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	236			833	796	
Travel Time (s)	5.4			18.9	18.1	
Confl. Peds. (#/hr)						3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	10%	3%	0%	0%
Adj. Flow (vph)	92	1	17	136	1	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	93	0	0	153	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.01	1.01	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
2: Bank Street & Tompkins Avenue

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	83	1	15	122	1	8
Future Vol, veh/h	83	1	15	122	1	8
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	1	7	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	10	3	0	0
Mvmt Flow	92	1	17	136	1	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	93	0	262	96
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	169	-
Critical Hdwy	-	-	4.2	-	7.8	6.9
Critical Hdwy Stg 1	-	-	-	-	6.8	-
Critical Hdwy Stg 2	-	-	-	-	6.8	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1453	-	660	948
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	811	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1449	-	651	946
Mov Cap-2 Maneuver	-	-	-	-	651	-
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	800	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	901	-	-	1449	-	
HCM Lane V/C Ratio	0.011	-	-	0.012	-	
HCM Control Delay (s)	9	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

2022 Build Traffic Volumes

Weekday Peak PM Hour

3: Beekman Street/Beekman Street & The Views Development/W. Main Street

05/09/2017

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	36	0	2	0	3	11	52	332	5	21	64	87
Future Volume (vph)	36	0	2	0	3	11	52	332	5	21	64	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		5%			0%			-1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.892			0.999			0.928	
Flt Protected		0.955						0.993			0.996	
Satd. Flow (prot)	0	1755	0	0	1662	0	0	1817	0	0	1703	0
Flt Permitted		0.727						0.913			0.936	
Satd. Flow (perm)	0	1336	0	0	1662	0	0	1671	0	0	1601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			12			1			137	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			162			321			353	
Travel Time (s)		14.5			3.7			7.3			8.0	
Peak Hour Factor	0.53	0.92	0.53	0.92	0.92	0.92	0.53	0.53	0.92	0.92	0.53	0.53
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	25%	1%	2%	2%	2%	6%
Adj. Flow (vph)	68	0	4	0	3	12	98	626	5	23	121	164
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	15	0	0	729	0	0	308	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	83		20	83		20	83		20	83	
Trailing Detector (ft)	0	-5		0	-5		0	-5		0	-5	
Detector 1 Position(ft)	0	-5		0	-5		0	-5		0	-5	
Detector 1 Size(ft)	20	40		20	40		20	40		20	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		43			43			43			43	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0		65.0	65.0		65.0	65.0	
Total Split (%)	27.8%	27.8%		27.8%	27.8%		72.2%	72.2%		72.2%	72.2%	
Maximum Green (s)	20.0	20.0		20.0	20.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
v/c Ratio		0.28			0.05			0.76			0.32	
Control Delay		17.1			12.8			12.8			3.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.1			12.8			12.8			3.4	
Queue Length 50th (ft)		10			1			100			15	
Queue Length 95th (ft)		48			15			93			17	
Internal Link Dist (ft)		560			82			241			273	
Turn Bay Length (ft)												
Base Capacity (vph)		669			823			1652			1585	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.11			0.02			0.44			0.19	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 43.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

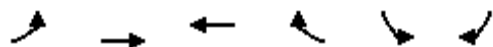
Splits and Phases: 3: Beekman Street/Beekman Street & The Views Development/W. Main Street

 Ø2	 Ø4
25 s	65 s
 Ø6	 Ø8
25 s	65 s

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	36	0	2	0	3	11	52	332	5	21	64	87
Future Volume (veh/h)	36	0	2	0	3	11	52	332	5	21	64	87
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1852	1852	1852	1900	1863	1900	1910	1832	1910	1919	1843	1919
Adj Flow Rate, veh/h	68	0	4	0	3	12	98	626	5	23	121	164
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.53	0.92	0.53	0.92	0.92	0.92	0.53	0.53	0.92	0.92	0.53	0.53
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	2	2	2
Cap, veh/h	350	6	9	0	39	155	207	922	7	139	424	512
Arrive On Green	0.12	0.00	0.12	0.00	0.12	0.12	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1226	48	75	0	326	1306	148	1565	12	44	718	868
Grp Volume(v), veh/h	72	0	0	0	0	15	729	0	0	308	0	0
Grp Sat Flow(s),veh/h/ln	1349	0	0	0	0	1632	1725	0	0	1630	0	0
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	0.3	2.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	0.0	0.0	0.3	9.7	0.0	0.0	3.1	0.0	0.0
Prop In Lane	0.94		0.06	0.00		0.80	0.13		0.01	0.07		0.53
Lane Grp Cap(c), veh/h	364	0	0	0	0	194	1136	0	0	1074	0	0
V/C Ratio(X)	0.20	0.00	0.00	0.00	0.00	0.08	0.64	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	1013	0	0	0	0	953	3077	0	0	2866	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.1	0.0	0.0	0.0	0.0	13.4	4.8	0.0	0.0	3.5	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.1	4.9	0.0	0.0	1.5	0.0	0.0
LnGrp Delay(d),s/veh	14.4	0.0	0.0	0.0	0.0	13.6	5.4	0.0	0.0	3.7	0.0	0.0
LnGrp LOS	B					B	A			A		
Approach Vol, veh/h		72			15			729			308	
Approach Delay, s/veh		14.4			13.6			5.4			3.7	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.1		25.2		9.1		25.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		20.0		60.0		20.0		60.0				
Max Q Clear Time (g_c+I1), s		2.3		11.7		3.8		5.1				
Green Ext Time (p_c), s		0.3		8.5		0.3		8.6				
Intersection Summary												
HCM 2010 Ctrl Delay			5.6									
HCM 2010 LOS			A									

2022 Build Traffic Volumes
4: W. Main Street & Bank Street

Weekday Peak PM Hour
05/09/2017



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Traffic Volume (vph)	3	31	82	59	8	39
Future Volume (vph)	3	31	82	59	8	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		3%	-5%		-8%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.944		0.888	
Flt Protected		0.995			0.992	
Satd. Flow (prot)	0	1862	1737	0	1741	0
Flt Permitted		0.995			0.992	
Satd. Flow (perm)	0	1862	1737	0	1741	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	640		200	
Travel Time (s)		6.0	14.5		4.5	
Confl. Peds. (#/hr)	15					
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	10%	0%	0%	0%
Adj. Flow (vph)	4	39	103	74	10	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	177	0	59	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	0.95	0.95
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	31	82	59	8	39
Future Vol, veh/h	3	31	82	59	8	39
Conflicting Peds, #/hr	15	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-8	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	10	0	0	0
Mvmt Flow	4	39	103	74	10	49
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	191	0	-	0	200	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	46	-
Critical Hdwy	4.1	-	-	-	4.8	5.4
Critical Hdwy Stg 1	-	-	-	-	3.8	-
Critical Hdwy Stg 2	-	-	-	-	3.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1395	-	-	-	867	928
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	1002	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1395	-	-	-	843	916
Mov Cap-2 Maneuver	-	-	-	-	843	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	987	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.7		0		9.3	
HCM LOS					A	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1395	-	-	-	903	
HCM Lane V/C Ratio	0.003	-	-	-	0.065	
HCM Control Delay (s)	7.6	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	48	278	765	68	217	779
Future Volume (vph)	48	278	765	68	217	779
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	90	0		0	215	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1815	0	1778	1872
Flt Permitted	0.950				0.067	
Satd. Flow (perm)	1725	1544	1815	0	125	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	207		948			167
Travel Time (s)	4.7		21.5			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	302	832	74	236	847
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	302	906	0	236	847
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Minimum Split (s)	21.0	9.0	62.0		9.0	45.0
Total Split (s)	30.0	20.0	70.0		20.0	90.0
Total Split (%)	25.0%	16.7%	58.3%		16.7%	75.0%
Maximum Green (s)	25.0	15.0	65.0		15.0	85.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Walk Time (s)	5.0		5.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
v/c Ratio	0.14	0.52	0.92		0.80	0.64
Control Delay	40.2	33.1	41.2		47.9	12.1

2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	40.2	33.1	41.2		47.9	12.1
Queue Length 50th (ft)	33	180	616		117	312
Queue Length 95th (ft)	69	270	#915		#246	431
Internal Link Dist (ft)	127		868			87
Turn Bay Length (ft)	90				215	
Base Capacity (vph)	359	579	983		295	1326
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	0.14	0.52	0.92		0.80	0.64

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
Natural Cycle: 95
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: NYS Route 9D & Verplanck Avenue



2022 Build Traffic Volumes
5: NYS Route 9D & Verplanck Avenue

Weekday Peak PM Hour
05/09/2017

								
Movement	NWL	NWR	NET	NER	SWL	SWT		
Lane Configurations								
Traffic Volume (veh/h)	48	278	765	68	217	779		
Future Volume (veh/h)	48	278	765	68	217	779		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1816	1816	1835	1872	1872	1872		
Adj Flow Rate, veh/h	52	302	832	74	236	847		
Adj No. of Lanes	1	1	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	360	515	900	80	333	1326		
Arrive On Green	0.21	0.21	0.54	0.54	0.13	0.71		
Sat Flow, veh/h	1730	1544	1661	148	1783	1872		
Grp Volume(v), veh/h	52	302	0	906	236	847		
Grp Sat Flow(s),veh/h/ln	1730	1544	0	1809	1783	1872		
Q Serve(g_s), s	2.9	19.5	0.0	55.2	7.5	28.9		
Cycle Q Clear(g_c), s	2.9	19.5	0.0	55.2	7.5	28.9		
Prop In Lane	1.00	1.00		0.08	1.00			
Lane Grp Cap(c), veh/h	360	515	0	980	333	1326		
V/C Ratio(X)	0.14	0.59	0.00	0.92	0.71	0.64		
Avail Cap(c_a), veh/h	360	515	0	980	333	1326		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	38.8	33.2	0.0	25.3	28.7	9.3		
Incr Delay (d2), s/veh	0.8	4.8	0.0	15.5	12.0	2.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.5	9.0	0.0	31.6	8.5	15.7		
LnGrp Delay(d),s/veh	39.6	38.0	0.0	40.7	40.7	11.7		
LnGrp LOS	D	D		D	D	B		
Approach Vol, veh/h	354		906			1083		
Approach Delay, s/veh	38.2		40.7			18.0		
Approach LOS	D		D			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	20.0	70.0				90.0		30.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0				85.0		25.0
Max Q Clear Time (g_c+I1), s	0.0	0.0				0.0		0.0
Green Ext Time (p_c), s	0.0	0.0				0.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			29.9					
HCM 2010 LOS			C					

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	325	6	55	12	3	7	59	467	11	12	637	126
Future Volume (vph)	325	6	55	12	3	7	59	467	11	12	637	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	80		0	85		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.997			0.975	
Flt Protected		0.953			0.974		0.950			0.950		
Satd. Flow (prot)	0	1757	1567	0	1819	0	1823	1913	0	1743	1789	0
Flt Permitted		0.713			0.809		0.082			0.393		
Satd. Flow (perm)	0	1315	1567	0	1511	0	157	1913	0	721	1789	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		8			2			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			158			388			335	
Travel Time (s)		6.2			3.6			8.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	353	7	60	13	3	8	64	508	12	13	692	137
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	360	60	0	24	0	64	520	0	13	829	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												Yes
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	83		83	6		83	6	
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	0		-5	0	
Detector 1 Size(ft)	20	43	43	20	43		43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40	40		40		40			40		
Detector 2 Size(ft)		43	43		43		43			43		
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0			0.0		
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	16.0		4.0	16.0	
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	31.0	31.0	31.0	31.0	31.0		13.0	46.0		13.0	46.0	
Total Split (%)	34.4%	34.4%	34.4%	34.4%	34.4%		14.4%	51.1%		14.4%	51.1%	
Maximum Green (s)	26.0	26.0	26.0	26.0	26.0		8.0	41.0		8.0	41.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
v/c Ratio		0.94	0.12		0.05		0.28	0.48		0.03	0.96	
Control Delay		65.2	3.5		18.1		10.8	14.0		7.8	46.6	
Queue Delay		0.0	0.0		0.0		0.0	2.2		0.0	43.0	
Total Delay		65.2	3.5		18.1		10.8	16.2		7.8	89.6	
Queue Length 50th (ft)		197	0		6		14	148		3	445	
Queue Length 95th (ft)		#372	17		25		30	303		10	#723	
Internal Link Dist (ft)		193			78			308			255	
Turn Bay Length (ft)			95				80			85		
Base Capacity (vph)		399	535		464		247	1081		492	864	
Starvation Cap Reductn		0	0		0		0	409		0	205	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.90	0.11		0.05		0.26	0.77		0.03	1.26	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 86.2

Natural Cycle: 90

Control Type: Semi Act-Uncoord

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: NYS Route 9D & Beekman Street/W. Church Street

 Ø1	 Ø2	 Ø4
13 s	46 s	31 s
 Ø5	 Ø6	 Ø8
13 s	46 s	31 s

2022 Build Traffic Volumes
6: NYS Route 9D & Beekman Street/W. Church Street

Weekday Peak PM Hour
05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	6	55	12	3	7	59	467	11	12	637	126
Future Volume (veh/h)	325	6	55	12	3	7	59	467	11	12	637	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1844	1844	1995	1956	1995	1919	1919	1957	1835	1835	1872
Adj Flow Rate, veh/h	353	7	60	13	3	8	64	508	12	13	692	137
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	387	6	479	65	24	12	173	944	22	384	717	142
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.04	0.51	0.51	0.01	0.48	0.48
Sat Flow, veh/h	992	20	1568	0	80	40	1827	1867	44	1747	1488	295
Grp Volume(v), veh/h	360	0	60	24	0	0	64	0	520	13	0	829
Grp Sat Flow(s),veh/h/ln	1011	0	1568	120	0	0	1827	0	1911	1747	0	1783
Q Serve(g_s), s	0.0	0.0	2.4	0.0	0.0	0.0	1.5	0.0	15.7	0.3	0.0	38.3
Cycle Q Clear(g_c), s	26.0	0.0	2.4	26.0	0.0	0.0	1.5	0.0	15.7	0.3	0.0	38.3
Prop In Lane	0.98		1.00	0.54		0.33	1.00		0.02	1.00		0.17
Lane Grp Cap(c), veh/h	393	0	479	102	0	0	173	0	967	384	0	859
V/C Ratio(X)	0.92	0.00	0.13	0.24	0.00	0.00	0.37	0.00	0.54	0.03	0.00	0.97
Avail Cap(c_a), veh/h	393	0	479	102	0	0	277	0	967	527	0	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	21.3	24.3	0.0	0.0	19.7	0.0	14.3	12.1	0.0	21.4
Incr Delay (d2), s/veh	25.9	0.0	0.1	1.2	0.0	0.0	1.3	0.0	2.1	0.0	0.0	23.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	0.0	1.0	0.4	0.0	0.0	0.8	0.0	8.8	0.2	0.0	24.2
LnGrp Delay(d),s/veh	57.3	0.0	21.5	25.4	0.0	0.0	21.0	0.0	16.4	12.1	0.0	44.7
LnGrp LOS	E		C	C			C		B	B		D
Approach Vol, veh/h		420			24			584			842	
Approach Delay, s/veh		52.2			25.4			16.9			44.2	
Approach LOS		D			C			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	48.1		31.0	8.1	46.0		31.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	41.0		26.0	8.0	41.0		26.0				
Max Q Clear Time (g_c+I1), s	2.3	17.7		28.0	3.5	40.3		28.0				
Green Ext Time (p_c), s	0.0	4.3		0.0	0.1	0.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			37.3									
HCM 2010 LOS			D									

2022 Build Traffic Volumes

Weekday Peak PM Hour

7: NYS Route 9D & Beacon City Hall/Main Street

05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	8	1	23	2	155	1	382	44	256	442	1
Future Volume (vph)	1	8	1	23	2	155	1	382	44	256	442	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	0		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988				0.850		0.984				
Flt Protected		0.995			0.956		0.950			0.950		
Satd. Flow (prot)	0	1822	0	0	1852	1647	1796	1860	0	1743	1835	0
Flt Permitted		0.964					0.461			0.432		
Satd. Flow (perm)	0	1765	0	0	1937	1647	872	1860	0	793	1835	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		76			138			182			388	
Travel Time (s)		1.7			3.1			4.1			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	9	1	25	2	168	1	415	48	278	480	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	27	168	1	463	0	278	481	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	1		2	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83	83	83	6		83	6	
Trailing Detector (ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Position(ft)	0	-5		0	-5	-5	-5	0		-5	0	
Detector 1 Size(ft)	20	43		20	43	43	43	6		43	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		40			40	40	40			40		
Detector 2 Size(ft)		43			43	43	43			43		
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0			0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour
05/09/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		8.0	8.0	4.0	4.0	31.0		4.0	36.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	36.0		9.0	41.0	
Total Split (s)	36.0	36.0		36.0	36.0	13.0	13.0	41.0		13.0	41.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	14.4%	14.4%	45.6%		14.4%	45.6%	
Maximum Green (s)	31.0	31.0		31.0	31.0	8.0	8.0	36.0		8.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Max		None	Max	
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	11.0	11.0						11.0				
Pedestrian Calls (#/hr)	0	0						0				
v/c Ratio		0.06			0.10	0.48	0.00	0.40		0.36	0.31	
Control Delay		25.3			26.1	24.3	3.0	8.5		4.3	4.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		25.3			26.1	24.3	3.0	8.5		4.3	4.7	
Queue Length 50th (ft)		3			8	52	0	52		0	0	
Queue Length 95th (ft)		17			31	99	1	176		49	186	
Internal Link Dist (ft)		1			58			102			308	
Turn Bay Length (ft)						70				120		
Base Capacity (vph)		936			1026	354	782	1145		782	1566	
Starvation Cap Reductn		0			0	0	0	0		0	71	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.03	0.47	0.00	0.40		0.36	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 59.2

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Splits and Phases: 7: NYS Route 9D & Beacon City Hall/Main Street

 Ø2	 Ø1	 Ø4
41 s	13 s	36 s
 Ø6	 Ø5	 Ø8
41 s	13 s	36 s

2022 Build Traffic Volumes
7: NYS Route 9D & Beacon City Hall/Main Street

Weekday Peak PM Hour

05/09/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	8	1	23	2	155	1	382	44	256	442	1
Future Volume (veh/h)	1	8	1	23	2	155	1	382	44	256	442	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1853	1890	1976	1937	1937	1891	1891	1928	1835	1835	1872
Adj Flow Rate, veh/h	1	9	1	25	2	168	1	415	48	278	480	1
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	196	20	278	18	308	619	955	110	619	1050	2
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.57	0.57	0.06	0.57	0.57
Sat Flow, veh/h	51	1583	163	1352	148	1647	1801	1664	192	1747	1830	4
Grp Volume(v), veh/h	11	0	0	27	0	168	1	0	463	278	0	481
Grp Sat Flow(s),veh/h/ln	1797	0	0	1500	0	1647	1801	0	1857	1747	0	1834
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	1.8	0.0	0.0	8.9	0.0	0.0	9.5
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.9	0.0	1.8	0.0	0.0	8.9	0.0	0.0	9.5
Prop In Lane	0.09		0.09	0.93		1.00	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	285	0	0	296	0	308	619	0	1065	619	0	1052
V/C Ratio(X)	0.04	0.00	0.00	0.09	0.00	0.54	0.00	0.00	0.43	0.45	0.00	0.46
Avail Cap(c_a), veh/h	929	0	0	845	0	918	734	0	1065	731	0	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	0.0	24.5	0.0	23.1	8.3	0.0	7.6	11.5	0.0	7.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	1.5	0.0	0.0	1.3	0.5	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.4	0.0	0.9	0.0	0.0	4.9	3.6	0.0	5.1
LnGrp Delay(d),s/veh	24.3	0.0	0.0	24.6	0.0	24.6	8.3	0.0	8.9	12.0	0.0	9.2
LnGrp LOS	C			C		C	A		A	B		A
Approach Vol, veh/h		11			195			464			759	
Approach Delay, s/veh		24.3			24.6			8.9			10.2	
Approach LOS		C			C			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		12.8	9.0	41.0		12.8				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	36.0		31.0	8.0	36.0		31.0				
Max Q Clear Time (g_c+I1), s	2.0	10.9		2.3	2.0	11.5		3.8				
Green Ext Time (p_c), s	0.7	1.2		1.1	0.7	1.2		1.1				
Intersection Summary												
HCM 2010 Ctrl Delay				11.8								
HCM 2010 LOS				B								

2022 Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak PM Hour
05/09/2017

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	30	55	8	17	0
Future Volume (vph)	0	30	55	8	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	10%			10%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected				0.958		
Satd. Flow (prot)	1561	0	0	1729	1995	0
Flt Permitted				0.958		
Satd. Flow (perm)	1561	0	0	1729	1995	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	206			200	796	
Travel Time (s)	4.7			4.5	18.1	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	38	69	10	21	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	0	79	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.07	1.07	0.94	0.94
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
8: Bank Street & Branch Street

Weekday Peak PM Hour
05/09/2017

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	30	55	8	17	0
Future Vol, veh/h	0	30	55	8	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	10	-10	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	38	69	10	21	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	169	21	21	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	8.4	7.2	4.1	-	-	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	752	1056	1608	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	720	1056	1608	-	-	-
Mov Cap-2 Maneuver	720	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	6.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1608	-	1056	-	-	
HCM Lane V/C Ratio	0.043	-	0.036	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

2022 Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak PM Hour
 05/09/2017

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	47	0	67	70	0	36
Future Volume (vph)	47	0	67	70	0	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	3%			-5%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.976		
Satd. Flow (prot)	1872	0	0	1872	1644	0
Flt Permitted				0.976		
Satd. Flow (perm)	1872	0	0	1872	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			236	134	
Travel Time (s)	3.6			5.4	3.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	2%	0%	0%
Adj. Flow (vph)	52	0	74	78	0	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	0	152	40	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.97	0.97	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2022 Build Traffic Volumes
 9: Site Access & Tompkins Avenue /Tompkins Avenue

Weekday Peak PM Hour

05/09/2017

Intersection						
Int Delay, s/veh	3.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	
Traffic Vol, veh/h	47	0	67	70	0	36
Future Vol, veh/h	47	0	67	70	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	3	-	-	-5	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	52	0	74	78	0	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	52	0	279	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	227	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	1560	-	715	1021
Stage 1	-	0	-	-	976	-
Stage 2	-	0	-	-	815	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1560	-	679	1021
Mov Cap-2 Maneuver	-	-	-	-	679	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	774	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.6		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT		
Capacity (veh/h)	1021	-	1560	-		
HCM Lane V/C Ratio	0.039	-	0.048	-		
HCM Control Delay (s)	8.7	-	7.4	-		
HCM Lane LOS	A	-	A	-		
HCM 95th %tile Q(veh)	0.1	-	0.1	-		

EDGEWATER

REVISED APPENDIX E – TRAFFIC COUNT DATA

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 1-TOMPKINS_AVE_AT_BANK_ST_COLONIAL_RD_373532_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	COLONIAL RD From North					TOMPKINS AVE From East					BANK ST From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	7
06:45 AM	0	0	0	0	0	0	2	7	2	11	0	0	0	2	2	0	7	0	0	7	20
Total	0	0	0	0	0	0	4	7	2	13	0	0	0	2	2	0	12	0	0	12	27
07:00 AM	0	0	0	0	0	0	3	5	0	8	0	0	0	1	1	0	9	0	0	9	18
07:15 AM	0	0	0	0	0	0	2	23	0	25	2	0	0	1	3	0	4	0	0	4	32
07:30 AM	0	0	0	0	0	0	5	3	0	8	2	0	0	0	2	2	4	0	0	6	16
07:45 AM	0	0	0	1	1	0	4	9	0	13	1	0	0	1	2	0	4	0	0	4	20
Total	0	0	0	1	1	0	14	40	0	54	5	0	0	3	8	2	21	0	0	23	86
08:00 AM	0	0	0	0	0	0	3	7	0	10	1	0	0	0	1	0	6	0	0	6	17
08:15 AM	0	0	0	1	1	0	4	3	0	7	2	0	0	6	8	1	10	0	1	12	28
08:30 AM	0	0	0	0	0	0	5	2	0	7	1	0	0	4	5	0	9	0	1	10	22
08:45 AM	0	0	0	0	0	0	11	2	0	13	1	0	0	2	3	0	6	0	0	6	22
Total	0	0	0	1	1	0	23	14	0	37	5	0	0	12	17	1	31	0	2	34	89
09:00 AM	0	0	0	0	0	0	8	1	1	10	2	0	0	0	2	0	8	0	0	8	20
09:15 AM	0	0	0	0	0	0	7	0	2	9	2	0	1	1	4	0	8	0	0	8	21
Grand Total	0	0	0	2	2	0	56	62	5	123	14	0	1	18	33	3	80	0	2	85	243
Apprch %	0	0	0	100		0	45.5	50.4	4.1		42.4	0	3	54.5		3.5	94.1	0	2.4		
Total %	0	0	0	0.8	0.8	0	23	25.5	2.1	50.6	5.8	0	0.4	7.4	13.6	1.2	32.9	0	0.8	35	
Lights	0	0	0	0	0	0	51	61	0	112	13	0	1	0	14	3	76	0	0	79	205
% Lights	0	0	0	0	0	0	91.1	98.4	0	91.1	92.9	0	100	0	42.4	100	95	0	0	92.9	84.4
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Buses	0	0	0	0	0	0	1.8	0	0	0.8	0	0	0	0	0	0	1.2	0	0	1.2	0.8
Trucks	0	0	0	0	0	0	4	1	0	5	1	0	0	0	1	0	3	0	0	3	9
% Trucks	0	0	0	0	0	0	7.1	1.6	0	4.1	7.1	0	0	0	3	0	3.8	0	0	3.5	3.7
Pedestrians	0	0	0	2	2	0	0	0	5	5	0	0	0	18	18	0	0	0	2	2	27
% Pedestrians	0	0	0	100	100	0	0	0	100	4.1	0	0	0	100	54.5	0	0	0	100	2.4	11.1

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 1-TOMPKINS_AVE_AT_BANK_ST_COLONIAL_RD_373532_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 2

	COLONIAL RD From North					TOMPKINS AVE From East					BANK ST From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:15 AM																					
08:15 AM	0	0	0	1	1	0	4	3	0	7	2	0	0	6	8	1	10	0	1	12	28
08:30 AM	0	0	0	0	0	0	5	2	0	7	1	0	0	4	5	0	9	0	1	10	22
08:45 AM	0	0	0	0	0	0	11	2	0	13	1	0	0	2	3	0	6	0	0	6	22
09:00 AM	0	0	0	0	0	0	8	1	1	10	2	0	0	0	2	0	8	0	0	8	20
Total Volume	0	0	0	1	1	0	28	8	1	37	6	0	0	12	18	1	33	0	2	36	92
% App. Total	0	0	0	100		0	75.7	21.6	2.7		33.3	0	0	66.7		2.8	91.7	0	5.6		
PHF	.000	.000	.000	.250	.250	.000	.636	.667	.250	.712	.750	.000	.000	.500	.563	.250	.825	.000	.500	.750	.821
Lights	0	0	0	0	0	0	25	8	0	33	6	0	0	0	6	1	31	0	0	32	71
% Lights	0	0	0	0	0	0	89.3	100	0	89.2	100	0	0	0	33.3	100	93.9	0	0	88.9	77.2
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Buses	0	0	0	0	0	0	3.6	0	0	2.7	0	0	0	0	0	0	3.0	0	0	2.8	2.2
Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
% Trucks	0	0	0	0	0	0	7.1	0	0	5.4	0	0	0	0	0	0	3.0	0	0	2.8	3.3
Pedestrians	0	0	0	1	1	0	0	0	1	1	0	0	0	12	12	0	0	0	2	2	16
% Pedestrians	0	0	0	100	100	0	0	0	100	2.7	0	0	0	100	66.7	0	0	0	100	5.6	17.4

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 1-TOMPKINS_AVE_AT_BANK_ST_COLONIAL_RD_373532_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	COLONIAL RD From North					TOMPKINS AVE From East					BANK ST From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	0	0	0	3	3	0	10	3	2	15	4	0	0	3	7	0	6	0	0	6	31
03:45 PM	0	0	0	0	0	0	11	2	0	13	0	0	0	2	2	0	12	0	0	12	27
Total	0	0	0	3	3	0	21	5	2	28	4	0	0	5	9	0	18	0	0	18	58
04:00 PM	0	0	0	0	0	0	7	2	1	10	2	0	1	5	8	0	8	0	0	8	26
04:15 PM	0	0	0	0	0	0	8	3	1	12	0	0	0	6	6	1	8	0	0	9	27
04:30 PM	0	0	0	0	0	0	10	5	0	15	1	0	0	1	2	1	8	0	0	9	26
04:45 PM	0	0	0	0	0	0	9	1	0	10	0	0	0	2	2	0	6	0	2	8	20
Total	0	0	0	0	0	0	34	11	2	47	3	0	1	14	18	2	30	0	2	34	99
05:00 PM	0	0	0	0	0	0	8	0	0	8	0	0	1	0	1	0	7	0	0	7	16
05:15 PM	0	0	0	0	0	0	4	3	0	7	1	0	0	1	2	0	11	0	0	11	20
05:30 PM	0	0	0	0	0	0	11	4	1	16	1	0	0	1	2	1	5	0	0	6	24
05:45 PM	0	0	0	0	0	0	12	2	0	14	2	0	1	2	5	1	3	0	0	4	23
Total	0	0	0	0	0	0	35	9	1	45	4	0	2	4	10	2	26	0	0	28	83
06:00 PM	0	0	0	0	0	0	8	4	0	12	0	0	0	1	1	0	7	0	0	7	20
06:15 PM	0	0	0	0	0	0	6	2	0	8	1	0	0	2	3	0	6	0	0	6	17
Grand Total	0	0	0	3	3	0	104	31	5	140	12	0	3	26	41	4	87	0	2	93	277
Apprch %	0	0	0	100		0	74.3	22.1	3.6		29.3	0	7.3	63.4		4.3	93.5	0	2.2		
Total %	0	0	0	1.1	1.1	0	37.5	11.2	1.8	50.5	4.3	0	1.1	9.4	14.8	1.4	31.4	0	0.7	33.6	
Lights	0	0	0	0	0	0	99	30	0	129	12	0	3	0	15	4	86	0	0	90	234
% Lights	0	0	0	0	0	0	95.2	96.8	0	92.1	100	0	100	0	36.6	100	98.9	0	0	96.8	84.5
Buses	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
% Buses	0	0	0	0	0	0	0	3.2	0	0.7	0	0	0	0	0	0	0	0	0	0	0.4
Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6
% Trucks	0	0	0	0	0	0	4.8	0	0	3.6	0	0	0	0	0	0	1.1	0	0	1.1	2.2
Pedestrians	0	0	0	3	3	0	0	0	5	5	0	0	0	26	26	0	0	0	2	2	36
% Pedestrians	0	0	0	100	100	0	0	0	100	3.6	0	0	0	100	63.4	0	0	0	100	2.2	13

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 1-TOMPKINS_AVE_AT_BANK_ST_COLONIAL_RD_373532_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 2

	COLONIAL RD From North					TOMPKINS AVE From East					BANK ST From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	0	0	0	3	3	0	10	3	2	15	4	0	0	3	7	0	6	0	0	6	31
03:45 PM	0	0	0	0	0	0	11	2	0	13	0	0	0	2	2	0	12	0	0	12	27
04:00 PM	0	0	0	0	0	0	7	2	1	10	2	0	1	5	8	0	8	0	0	8	26
04:15 PM	0	0	0	0	0	0	8	3	1	12	0	0	0	6	6	1	8	0	0	9	27
Total Volume	0	0	0	3	3	0	36	10	4	50	6	0	1	16	23	1	34	0	0	35	111
% App. Total	0	0	0	100		0	72	20	8		26.1	0	4.3	69.6		2.9	97.1	0	0		
PHF	.000	.000	.000	.250	.250	.000	.818	.833	.500	.833	.375	.000	.250	.667	.719	.250	.708	.000	.000	.729	.895
Lights	0	0	0	0	0	0	35	9	0	44	6	0	1	0	7	1	34	0	0	35	86
% Lights	0	0	0	0	0	0	97.2	90.0	0	88.0	100	0	100	0	30.4	100	100	0	0	100	77.5
Buses	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
% Buses	0	0	0	0	0	0	0	10.0	0	2.0	0	0	0	0	0	0	0	0	0	0	0.9
Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	2.8	0	0	2.0	0	0	0	0	0	0	0	0	0	0	0.9
Pedestrians	0	0	0	3	3	0	0	0	4	4	0	0	0	16	16	0	0	0	0	0	23
% Pedestrians	0	0	0	100	100	0	0	0	100	8.0	0	0	0	100	69.6	0	0	0	0	0	20.7

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 2-NYS_ROUTE_9D_AT_TOMPKINS_AVE_RALPH_ST_373533_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	NYS ROUTE 9D From North					RALPH ST From East					NYS ROUTE 9D From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	2	140	1	0	143	0	0	1	1	2	0	67	0	1	68	1	0	4	0	5	218
06:45 AM	8	174	0	0	182	1	1	0	0	2	0	88	0	1	89	4	0	3	1	8	281
Total	10	314	1	0	325	1	1	1	1	4	0	155	0	2	157	5	0	7	1	13	499
07:00 AM	7	181	0	0	188	0	0	0	0	0	0	88	2	0	90	0	3	7	1	11	289
07:15 AM	23	160	0	0	183	1	2	1	1	5	0	138	0	1	139	2	1	3	1	7	334
07:30 AM	5	139	0	0	144	2	0	0	0	2	0	108	4	0	112	0	2	4	0	6	264
07:45 AM	8	120	0	0	128	3	1	0	0	4	2	121	4	0	127	3	1	3	0	7	266
Total	43	600	0	0	643	6	3	1	1	11	2	455	10	1	468	5	7	17	2	31	1153
08:00 AM	8	131	1	0	140	1	1	1	1	4	2	100	2	2	106	5	0	4	0	9	259
08:15 AM	2	139	0	0	141	2	2	2	4	10	0	96	2	2	100	6	3	5	0	14	265
08:30 AM	3	152	0	0	155	2	1	1	1	5	0	100	3	2	105	3	4	4	1	12	277
08:45 AM	7	141	2	0	150	3	0	1	0	4	1	133	7	0	141	5	1	3	0	9	304
Total	20	563	3	0	586	8	4	5	6	23	3	429	14	6	452	19	8	16	1	44	1105
09:00 AM	6	146	0	0	152	3	0	1	0	4	2	115	3	1	121	2	0	10	1	13	290
09:15 AM	5	89	0	0	94	4	0	0	1	5	0	79	2	3	84	9	0	2	0	11	194
Grand Total	84	1712	4	0	1800	22	8	8	9	47	7	1233	29	13	1282	40	15	52	5	112	3241
Apprch %	4.7	95.1	0.2	0		46.8	17	17	19.1		0.5	96.2	2.3	1		35.7	13.4	46.4	4.5		
Total %	2.6	52.8	0.1	0	55.5	0.7	0.2	0.2	0.3	1.5	0.2	38	0.9	0.4	39.6	1.2	0.5	1.6	0.2	3.5	
Lights	81	1624	2	0	1707	21	7	8	0	36	6	1166	23	0	1195	37	14	51	0	102	3040
% Lights	96.4	94.9	50	0	94.8	95.5	87.5	100	0	76.6	85.7	94.6	79.3	0	93.2	92.5	93.3	98.1	0	91.1	93.8
Buses	3	37	0	0	40	0	0	0	0	0	0	37	1	0	38	0	1	0	0	1	79
% Buses	3.6	2.2	0	0	2.2	0	0	0	0	0	0	3	3.4	0	3	0	6.7	0	0	0.9	2.4
Trucks	0	51	2	0	53	1	1	0	0	2	1	30	5	0	36	3	0	1	0	4	95
% Trucks	0	3	50	0	2.9	4.5	12.5	0	0	4.3	14.3	2.4	17.2	0	2.8	7.5	0	1.9	0	3.6	2.9
Pedestrians	0	0	0	0	0	0	0	0	9	9	0	0	0	13	13	0	0	0	5	5	27
% Pedestrians	0	0	0	0	0	0	0	0	100	19.1	0	0	0	100	1	0	0	0	100	4.5	0.8

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 2-NYS_ROUTE_9D_AT_TOMPKINS_AVE_RALPH_ST_373533_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 2

	NYS ROUTE 9D From North					RALPH ST From East					NYS ROUTE 9D From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	8	174	0	0	182	1	1	0	0	2	0	88	0	1	89	4	0	3	1	8	281
07:00 AM	7	181	0	0	188	0	0	0	0	0	0	88	2	0	90	0	3	7	1	11	289
07:15 AM	23	160	0	0	183	1	2	1	1	5	0	138	0	1	139	2	1	3	1	7	334
07:30 AM	5	139	0	0	144	2	0	0	0	2	0	108	4	0	112	0	2	4	0	6	264
Total Volume	43	654	0	0	697	4	3	1	1	9	0	422	6	2	430	6	6	17	3	32	1168
% App. Total	6.2	93.8	0	0		44.4	33.3	11.1	11.1		0	98.1	1.4	0.5		18.8	18.8	53.1	9.4		
PHF	.467	.903	.000	.000	.927	.500	.375	.250	.250	.450	.000	.764	.375	.500	.773	.375	.500	.607	.750	.727	.874
Lights	40	621	0	0	661	4	3	1	0	8	0	400	5	0	405	6	6	17	0	29	1103
% Lights	93.0	95.0	0	0	94.8	100	100	100	0	88.9	0	94.8	83.3	0	94.2	100	100	100	0	90.6	94.4
Buses	3	16	0	0	19	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	35
% Buses	7.0	2.4	0	0	2.7	0	0	0	0	0	0	3.8	0	0	3.7	0	0	0	0	0	3.0
Trucks	0	17	0	0	17	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	24
% Trucks	0	2.6	0	0	2.4	0	0	0	0	0	0	1.4	16.7	0	1.6	0	0	0	0	0	2.1
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	3	3	6
% Pedestrians	0	0	0	0	0	0	0	0	100	11.1	0	0	0	100	0.5	0	0	0	100	9.4	0.5

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 2-NYS_ROUTE_9D_AT_TOMPKINS_AVE_RALPH_ST_373533_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	NYS ROUTE 9D From North					RALPH ST From East					NYS ROUTE 9D From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	7	109	1	0	117	6	0	0	0	6	1	153	5	10	169	3	1	7	2	13	305
03:45 PM	8	135	2	0	145	1	3	1	3	8	0	120	4	0	124	6	2	6	0	14	291
Total	15	244	3	0	262	7	3	1	3	14	1	273	9	10	293	9	3	13	2	27	596
04:00 PM	12	122	0	0	134	2	1	2	1	6	1	150	2	1	154	7	2	6	0	15	309
04:15 PM	11	121	1	0	133	1	1	2	0	4	1	192	1	3	197	5	0	4	2	11	345
04:30 PM	17	131	0	0	148	6	1	2	0	9	0	167	3	1	171	4	2	3	0	9	337
04:45 PM	11	136	2	0	149	0	0	0	1	1	1	151	4	0	156	9	1	6	1	17	323
Total	51	510	3	0	564	9	3	6	2	20	3	660	10	5	678	25	5	19	3	52	1314
05:00 PM	6	117	1	0	124	1	0	2	0	3	0	154	5	2	161	3	0	9	0	12	300
05:15 PM	9	137	2	0	148	5	0	0	0	5	2	131	2	2	137	5	3	5	0	13	303
05:30 PM	13	162	3	0	178	0	1	0	0	1	0	162	6	0	168	3	0	5	0	8	355
05:45 PM	13	122	0	0	135	0	1	0	0	1	0	95	2	0	97	2	1	3	0	6	239
Total	41	538	6	0	585	6	2	2	0	10	2	542	15	4	563	13	4	22	0	39	1197
06:00 PM	15	132	1	0	148	0	1	0	1	2	0	80	3	1	84	1	3	9	0	13	247
06:15 PM	7	97	1	4	109	2	0	0	0	2	1	220	0	4	225	6	1	0	0	7	343
Grand Total	129	1521	14	4	1668	24	9	9	6	48	7	1775	37	24	1843	54	16	63	5	138	3697
Apprch %	7.7	91.2	0.8	0.2		50	18.8	18.8	12.5		0.4	96.3	2	1.3		39.1	11.6	45.7	3.6		
Total %	3.5	41.1	0.4	0.1	45.1	0.6	0.2	0.2	0.2	1.3	0.2	48	1	0.6	49.9	1.5	0.4	1.7	0.1	3.7	
Lights	126	1489	14	0	1629	22	9	9	0	40	7	1707	33	0	1747	53	16	63	0	132	3548
% Lights	97.7	97.9	100	0	97.7	91.7	100	100	0	83.3	100	96.2	89.2	0	94.8	98.1	100	100	0	95.7	96
Buses	0	18	0	0	18	0	0	0	0	0	0	27	2	0	29	0	0	0	0	0	47
% Buses	0	1.2	0	0	1.1	0	0	0	0	0	0	1.5	5.4	0	1.6	0	0	0	0	0	1.3
Trucks	3	14	0	0	17	2	0	0	0	2	0	41	2	0	43	1	0	0	0	1	63
% Trucks	2.3	0.9	0	0	1	8.3	0	0	0	4.2	0	2.3	5.4	0	2.3	1.9	0	0	0	0.7	1.7
Pedestrians	0	0	0	4	4	0	0	0	6	6	0	0	0	24	24	0	0	0	5	5	39
% Pedestrians	0	0	0	100	0.2	0	0	0	100	12.5	0	0	0	100	1.3	0	0	0	100	3.6	1.1

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 2-NYS_ROUTE_9D_AT_TOMPKINS_AVE_RALPH_ST_373533_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 2

	NYS ROUTE 9D From North					RALPH ST From East					NYS ROUTE 9D From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	12	122	0	0	134	2	1	2	1	6	1	150	2	1	154	7	2	6	0	15	309
04:15 PM	11	121	1	0	133	1	1	2	0	4	1	192	1	3	197	5	0	4	2	11	345
04:30 PM	17	131	0	0	148	6	1	2	0	9	0	167	3	1	171	4	2	3	0	9	337
04:45 PM	11	136	2	0	149	0	0	0	1	1	1	151	4	0	156	9	1	6	1	17	323
Total Volume	51	510	3	0	564	9	3	6	2	20	3	660	10	5	678	25	5	19	3	52	1314
% App. Total	9	90.4	0.5	0		45	15	30	10		0.4	97.3	1.5	0.7		48.1	9.6	36.5	5.8		
PHF	.750	.938	.375	.000	.946	.375	.750	.750	.500	.556	.750	.859	.625	.417	.860	.694	.625	.792	.375	.765	.952
Lights	50	500	3	0	553	8	3	6	0	17	3	630	9	0	642	24	5	19	0	48	1260
% Lights	98.0	98.0	100	0	98.0	88.9	100	100	0	85.0	100	95.5	90.0	0	94.7	96.0	100	100	0	92.3	95.9
Buses	0	5	0	0	5	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	17
% Buses	0	1.0	0	0	0.9	0	0	0	0	0	0	1.8	0	0	1.8	0	0	0	0	0	1.3
Trucks	1	5	0	0	6	1	0	0	0	1	0	18	1	0	19	1	0	0	0	1	27
% Trucks	2.0	1.0	0	0	1.1	11.1	0	0	0	5.0	0	2.7	10.0	0	2.8	4.0	0	0	0	1.9	2.1
Pedestrians	0	0	0	0	0	0	0	0	2	2	0	0	0	5	5	0	0	0	3	3	10
% Pedestrians	0	0	0	0	0	0	0	0	100	10.0	0	0	0	100	0.7	0	0	0	100	5.8	0.8

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 3-BEEKMAN_ST_AT_WEST_MAIN_ST_373534_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	BEEKMAN ST From North					From East					BEEKMAN ST From South					W. MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	61	32	0	0	93	0	0	0	0	0	0	22	1	0	23	0	0	1	0	1	117
06:45 AM	85	45	0	0	130	0	0	0	0	0	0	29	0	0	29	0	0	2	0	2	161
Total	146	77	0	0	223	0	0	0	0	0	0	51	1	0	52	0	0	3	0	3	278
07:00 AM	76	49	0	0	125	0	0	0	0	0	0	32	2	0	34	0	0	2	1	3	162
07:15 AM	88	39	0	0	127	0	0	0	0	0	0	61	0	0	61	1	0	0	0	1	189
07:30 AM	39	25	0	0	64	0	0	0	0	0	0	13	0	0	13	0	0	3	0	3	80
07:45 AM	27	13	0	1	41	0	0	0	0	0	0	39	0	0	39	0	0	3	0	3	83
Total	230	126	0	1	357	0	0	0	0	0	0	145	2	0	147	1	0	8	1	10	514
08:00 AM	43	22	0	0	65	0	0	0	0	0	0	10	1	0	11	0	0	1	0	1	77
08:15 AM	24	15	0	0	39	0	0	0	0	0	0	29	0	0	29	1	0	2	0	3	71
08:30 AM	21	31	0	2	54	0	0	0	0	0	0	14	0	0	14	1	0	7	0	8	76
08:45 AM	14	11	0	0	25	0	0	0	0	0	0	25	1	0	26	0	0	10	0	10	61
Total	102	79	0	2	183	0	0	0	0	0	0	78	2	0	80	2	0	20	0	22	285
09:00 AM	46	21	0	0	67	0	0	0	0	0	0	35	2	0	37	0	0	2	0	2	106
09:15 AM	15	14	0	0	29	0	0	0	0	0	0	28	1	0	29	0	0	2	0	2	60
Grand Total	539	317	0	3	859	0	0	0	0	0	0	337	8	0	345	3	0	35	1	39	1243
Apprch %	62.7	36.9	0	0.3		0	0	0	0		0	97.7	2.3	0		7.7	0	89.7	2.6		
Total %	43.4	25.5	0	0.2	69.1	0	0	0	0	0	0	27.1	0.6	0	27.8	0.2	0	2.8	0.1	3.1	
Lights	526	304	0	0	830	0	0	0	0	0	0	324	4	0	328	3	0	30	0	33	1191
% Lights	97.6	95.9	0	0	96.6	0	0	0	0	0	0	96.1	50	0	95.1	100	0	85.7	0	84.6	95.8
Buses	7	2	0	0	9	0	0	0	0	0	0	10	3	0	13	0	0	0	0	0	22
% Buses	1.3	0.6	0	0	1	0	0	0	0	0	0	3	37.5	0	3.8	0	0	0	0	0	1.8
Trucks	6	11	0	0	17	0	0	0	0	0	0	3	1	0	4	0	0	5	0	5	26
% Trucks	1.1	3.5	0	0	2	0	0	0	0	0	0	0.9	12.5	0	1.2	0	0	14.3	0	12.8	2.1
Pedestrians	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
% Pedestrians	0	0	0	100	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	100	2.6	0.3

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 3-BEEKMAN_ST_AT_WEST_MAIN_ST_373534_12-14-2016

Site Code :

Start Date : 12/14/2016

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	BEEKMAN ST From North					From East					BEEKMAN ST From South					W. MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:30 AM																					
06:30 AM	61	32	0	0	93	0	0	0	0	0	0	22	1	0	23	0	0	1	0	1	117
06:45 AM	85	45	0	0	130	0	0	0	0	0	0	29	0	0	29	0	0	2	0	2	161
07:00 AM	76	49	0	0	125	0	0	0	0	0	0	32	2	0	34	0	0	2	1	3	162
07:15 AM	88	39	0	0	127	0	0	0	0	0	0	61	0	0	61	1	0	0	0	1	189
Total Volume	310	165	0	0	475	0	0	0	0	0	0	144	3	0	147	1	0	5	1	7	629
% App. Total	65.3	34.7	0	0		0	0	0	0		0	98	2	0		14.3	0	71.4	14.3		
PHF	.881	.842	.000	.000	.913	.000	.000	.000	.000	.000	.000	.590	.375	.000	.602	.250	.000	.625	.250	.583	.832
Lights	306	163	0	0	469	0	0	0	0	0	0	137	1	0	138	1	0	5	0	6	613
% Lights	98.7	98.8	0	0	98.7	0	0	0	0	0	0	95.1	33.3	0	93.9	100	0	100	0	85.7	97.5
Buses	3	1	0	0	4	0	0	0	0	0	0	6	2	0	8	0	0	0	0	0	12
% Buses	1.0	0.6	0	0	0.8	0	0	0	0	0	0	4.2	66.7	0	5.4	0	0	0	0	0	1.9
Trucks	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Trucks	0.3	0.6	0	0	0.4	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0	0	0	0.5
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	14.3	0.2

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 3-BEEKMAN_ST_AT_WEST_MAIN_ST_373534_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

Start Time	BEEKMAN ST From North					From East					BEEKMAN ST From South					W. MAIN ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	7	6	0	0	13	0	0	0	0	0	0	11	0	0	11	0	0	7	0	7	31
03:45 PM	10	26	0	0	36	0	0	0	0	0	0	14	2	0	16	0	0	0	0	0	52
Total	17	32	0	0	49	0	0	0	0	0	0	25	2	0	27	0	0	7	0	7	83
04:00 PM	12	12	0	2	26	0	0	0	0	0	0	21	0	0	21	0	0	6	1	7	54
04:15 PM	6	16	0	0	22	0	0	0	0	0	0	78	0	0	78	0	0	9	0	9	109
04:30 PM	14	17	0	0	31	0	0	0	0	0	0	66	1	0	67	2	0	7	0	9	107
04:45 PM	13	13	0	1	27	0	0	0	0	0	0	38	1	0	39	0	0	5	0	5	71
Total	45	58	0	3	106	0	0	0	0	0	0	203	2	0	205	2	0	27	1	30	341
05:00 PM	13	7	0	1	21	0	0	0	0	0	0	65	1	0	66	0	0	14	0	14	101
05:15 PM	10	10	0	0	20	0	0	0	0	0	0	26	0	0	26	2	0	9	0	11	57
05:30 PM	18	13	0	1	32	0	0	0	0	0	0	85	3	0	88	0	0	11	0	11	131
05:45 PM	11	12	0	0	23	0	0	0	0	0	0	25	1	0	26	1	0	1	0	2	51
Total	52	42	0	2	96	0	0	0	0	0	0	201	5	0	206	3	0	35	0	38	340
06:00 PM	17	22	0	0	39	0	0	0	0	0	0	10	2	0	12	0	0	7	0	7	58
06:15 PM	17	11	0	3	31	0	0	0	0	0	0	174	2	0	176	1	0	8	0	9	216
Grand Total	148	165	0	8	321	0	0	0	0	0	0	613	13	0	626	6	0	84	1	91	1038
Apprch %	46.1	51.4	0	2.5		0	0	0	0	0	0	97.9	2.1	0		6.6	0	92.3	1.1		
Total %	14.3	15.9	0	0.8	30.9	0	0	0	0	0	0	59.1	1.3	0	60.3	0.6	0	8.1	0.1	8.8	
Lights	136	164	0	0	300	0	0	0	0	0	0	603	8	0	611	6	0	81	0	87	998
% Lights	91.9	99.4	0	0	93.5	0	0	0	0	0	0	98.4	61.5	0	97.6	100	0	96.4	0	95.6	96.1
Buses	8	0	0	0	8	0	0	0	0	0	0	8	5	0	13	0	0	0	0	0	21
% Buses	5.4	0	0	0	2.5	0	0	0	0	0	0	1.3	38.5	0	2.1	0	0	0	0	0	2
Trucks	4	1	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	3	0	3	10
% Trucks	2.7	0.6	0	0	1.6	0	0	0	0	0	0	0.3	0	0	0.3	0	0	3.6	0	3.3	1
Pedestrians	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9
% Pedestrians	0	0	0	100	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	100	1.1	0.9

11 Bradhurst Avenue
Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

Site Code :

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 4-WEST_MAIN_ST_AT_BANK_ST_373535_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

Start Time	BANK ST From North					W. MAIN ST From East					From South					W. MAIN ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:30 AM	0	0	1	0	1	0	59	0	0	59	0	0	0	0	0	0	0	0	0	0	60
06:45 AM	5	0	1	6	12	0	81	0	0	81	0	0	0	0	0	0	1	0	0	1	94
Total	5	0	2	6	13	0	140	0	0	140	0	0	0	0	0	0	1	0	0	1	154
07:00 AM	6	0	0	9	15	0	85	0	1	86	0	0	0	0	0	0	2	0	0	2	103
07:15 AM	23	0	0	9	32	0	80	0	0	80	0	0	0	0	0	0	2	0	1	3	115
07:30 AM	5	0	0	10	15	0	44	0	0	44	0	0	0	0	0	0	3	2	0	5	64
07:45 AM	9	0	1	4	14	1	18	0	0	19	0	0	0	0	0	0	2	0	0	2	35
Total	43	0	1	32	76	1	227	0	1	229	0	0	0	0	0	0	9	2	1	12	317
08:00 AM	5	0	1	5	11	1	46	0	0	47	0	0	0	0	0	0	0	2	0	2	60
08:15 AM	4	0	1	1	6	0	21	0	0	21	0	0	0	0	0	0	3	2	0	5	32
08:30 AM	2	0	0	5	7	0	16	0	0	16	0	0	0	0	0	0	6	1	0	7	30
08:45 AM	2	0	0	1	3	0	15	0	0	15	0	0	0	0	0	0	7	0	0	7	25
Total	13	0	2	12	27	1	98	0	0	99	0	0	0	0	0	0	16	5	0	21	147
09:00 AM	2	0	0	7	9	3	33	0	0	36	0	0	0	0	0	0	1	0	0	1	46
09:15 AM	1	0	0	1	2	0	9	0	0	9	0	0	0	0	0	0	2	1	0	3	14
Grand Total	64	0	5	58	127	5	507	0	1	513	0	0	0	0	0	0	29	8	1	38	678
Apprch %	50.4	0	3.9	45.7		1	98.8	0	0.2		0	0	0	0		0	76.3	21.1	2.6		
Total %	9.4	0	0.7	8.6	18.7	0.7	74.8	0	0.1	75.7	0	0	0	0	0	0	4.3	1.2	0.1	5.6	
Lights	62	0	4	0	66	4	492	0	0	496	0	0	0	0	0	0	25	8	0	33	595
% Lights	96.9	0	80	0	52	80	97	0	0	96.7	0	0	0	0	0	0	86.2	100	0	86.8	87.8
Buses	1	0	0	0	1	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	11
% Buses	1.6	0	0	0	0.8	0	2	0	0	1.9	0	0	0	0	0	0	0	0	0	0	1.6
Trucks	1	0	1	0	2	1	5	0	0	6	0	0	0	0	0	0	4	0	0	4	12
% Trucks	1.6	0	20	0	1.6	20	1	0	0	1.2	0	0	0	0	0	0	13.8	0	0	10.5	1.8
Pedestrians	0	0	0	58	58	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	60
% Pedestrians	0	0	0	100	45.7	0	0	0	100	0.2	0	0	0	0	0	0	0	0	100	2.6	8.8

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 4-WEST_MAIN_ST_AT_BANK_ST_373535_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 2

	BANK ST From North					W. MAIN ST From East					From South					W. MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	5	0	1	6	12	0	81	0	0	81	0	0	0	0	0	0	1	0	0	1	94
07:00 AM	6	0	0	9	15	0	85	0	1	86	0	0	0	0	0	0	2	0	0	2	103
07:15 AM	23	0	0	9	32	0	80	0	0	80	0	0	0	0	0	0	2	0	1	3	115
07:30 AM	5	0	0	10	15	0	44	0	0	44	0	0	0	0	0	0	3	2	0	5	64
Total Volume	39	0	1	34	74	0	290	0	1	291	0	0	0	0	0	0	8	2	1	11	376
% App. Total	52.7	0	1.4	45.9		0	99.7	0	0.3		0	0	0	0	0	0	72.7	18.2	9.1		
PHF	.424	.000	.250	.850	.578	.000	.853	.000	.250	.846	.000	.000	.000	.000	.000	.000	.667	.250	.250	.550	.817
Lights	38	0	1	0	39	0	286	0	0	286	0	0	0	0	0	0	8	2	0	10	335
% Lights	97.4	0	100	0	52.7	0	98.6	0	0	98.3	0	0	0	0	0	0	100	100	0	90.9	89.1
Buses	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
% Buses	2.6	0	0	0	1.4	0	1.0	0	0	1.0	0	0	0	0	0	0	0	0	0	0	1.1
Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0.3
Pedestrians	0	0	0	34	34	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	36
% Pedestrians	0	0	0	100	45.9	0	0	0	100	0.3	0	0	0	0	0	0	0	0	100	9.1	9.6

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 4-WEST_MAIN_ST_AT_BANK_ST_373535_12-14-2016

Site Code :

Start Date : 12/14/2016

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

Start Time	BANK ST From North					W. MAIN ST From East					From South					W. MAIN ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	1	0	2	0	3	2	7	0	0	9	0	0	0	0	0	0	2	0	0	2	14
03:45 PM	2	0	1	2	5	2	9	0	0	11	0	0	0	0	0	0	0	1	0	1	17
Total	3	0	3	2	8	4	16	0	0	20	0	0	0	0	0	0	2	1	0	3	31
04:00 PM	0	0	1	2	3	1	10	0	0	11	0	0	0	0	0	0	0	1	1	2	16
04:15 PM	4	0	1	6	11	0	4	0	1	5	0	0	0	0	0	0	2	0	0	2	18
04:30 PM	3	0	0	5	8	0	13	0	0	13	0	0	0	0	0	0	6	1	1	8	29
04:45 PM	0	0	0	2	2	1	10	0	2	13	0	0	0	0	0	0	0	0	0	0	15
Total	7	0	2	15	24	2	37	0	3	42	0	0	0	0	0	0	8	2	2	12	78
05:00 PM	0	0	1	6	7	0	10	0	1	11	0	0	0	0	0	0	5	1	0	6	24
05:15 PM	2	0	1	0	3	0	10	0	0	10	0	0	0	0	0	0	4	0	0	4	17
05:30 PM	3	0	0	2	5	0	20	0	0	20	0	0	0	0	0	0	10	0	0	10	35
05:45 PM	2	0	0	0	2	2	14	0	0	16	0	0	0	0	0	0	1	0	0	1	19
Total	7	0	2	8	17	2	54	0	1	57	0	0	0	0	0	0	20	1	0	21	95
06:00 PM	3	0	1	1	5	1	14	0	0	15	0	0	0	0	0	0	3	1	0	4	24
06:15 PM	0	0	0	12	12	1	14	0	0	15	0	0	0	0	0	0	6	1	0	7	34
Grand Total	20	0	8	38	66	10	135	0	4	149	0	0	0	0	0	0	39	6	2	47	262
Apprch %	30.3	0	12.1	57.6		6.7	90.6	0	2.7		0	0	0	0		0	83	12.8	4.3		
Total %	7.6	0	3.1	14.5	25.2	3.8	51.5	0	1.5	56.9	0	0	0	0	0	0	14.9	2.3	0.8	17.9	
Lights	19	0	8	0	27	10	121	0	0	131	0	0	0	0	0	0	39	6	0	45	203
% Lights	95	0	100	0	40.9	100	89.6	0	0	87.9	0	0	0	0	0	0	100	100	0	95.7	77.5
Buses	1	0	0	0	1	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	13
% Buses	5	0	0	0	1.5	0	8.9	0	0	8.1	0	0	0	0	0	0	0	0	0	0	5
Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Trucks	0	0	0	0	0	0	1.5	0	0	1.3	0	0	0	0	0	0	0	0	0	0	0.8
Pedestrians	0	0	0	38	38	0	0	0	4	4	0	0	0	0	0	0	0	0	2	2	44
% Pedestrians	0	0	0	100	57.6	0	0	0	100	2.7	0	0	0	0	0	0	0	0	100	4.3	16.8

11 Bradhurst Avenue
Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

Site Code :

Page No : 2

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : NYS_ROUTE_9D_AND_BEEKMAN_ST_W_CHURCH_ST_389048_03-07-2017

Site Code :

Start Date : 3/7/2017

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	ROUTE 9D From North					W CHURCH ST From East					BEEKMAN ST From South					ROUTE 9D From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	108	43	0	0	151	0	1	0	2	3	0	47	4	0	51	2	0	26	0	28	233
06:45 AM	126	66	0	0	192	3	5	3	0	11	0	56	3	0	59	6	2	38	0	46	308
Total	234	109	0	0	343	3	6	3	2	14	0	103	7	0	110	8	2	64	0	74	541
07:00 AM	122	60	0	2	184	0	4	0	2	6	0	58	2	0	60	2	2	29	0	33	283
07:15 AM	101	44	0	1	146	6	4	0	1	11	0	77	4	0	81	4	0	45	1	50	288
07:30 AM	65	74	1	3	143	1	2	0	2	5	0	103	2	0	105	2	0	19	1	22	275
07:45 AM	31	100	0	0	131	4	1	1	0	6	0	69	2	0	71	8	1	24	0	33	241
Total	319	278	1	6	604	11	11	1	5	28	0	307	10	0	317	16	3	117	2	138	1087
08:00 AM	52	79	2	1	134	1	1	1	0	3	2	88	7	0	97	3	1	15	0	19	253
08:15 AM	24	107	0	3	134	4	2	4	2	12	1	66	4	0	71	3	1	23	0	27	244
08:30 AM	31	119	0	1	151	4	2	5	0	11	0	123	9	0	132	2	2	17	1	22	316
08:45 AM	36	113	0	0	149	4	0	2	0	6	1	96	4	0	101	1	1	31	0	33	289
Total	143	418	2	5	568	13	5	12	2	32	4	373	24	0	401	9	5	86	1	101	1102
09:00 AM	42	87	1	1	131	0	0	0	2	2	0	91	8	1	100	9	0	20	0	29	262
09:15 AM	13	88	1	1	103	0	0	3	1	4	0	72	4	0	76	2	0	18	0	20	203
Grand Total	751	980	5	13	1749	27	22	19	12	80	4	946	53	1	1004	44	10	305	3	362	3195
Apprch %	42.9	56	0.3	0.7		33.8	27.5	23.8	15		0.4	94.2	5.3	0.1		12.2	2.8	84.3	0.8		
Total %	23.5	30.7	0.2	0.4	54.7	0.8	0.7	0.6	0.4	2.5	0.1	29.6	1.7	0	31.4	1.4	0.3	9.5	0.1	11.3	
Lights	740	917	4	0	1661	27	22	18	0	67	3	891	48	0	942	43	10	289	0	342	3012
% Lights	98.5	93.6	80	0	95	100	100	94.7	0	83.8	75	94.2	90.6	0	93.8	97.7	100	94.8	0	94.5	94.3
Buses	6	27	1	0	34	0	0	1	0	1	0	23	4	0	27	0	0	8	0	8	70
% Buses	0.8	2.8	20	0	1.9	0	0	5.3	0	1.2	0	2.4	7.5	0	2.7	0	0	2.6	0	2.2	2.2
Trucks	5	36	0	0	41	0	0	0	0	0	1	32	1	0	34	1	0	8	0	9	84
% Trucks	0.7	3.7	0	0	2.3	0	0	0	0	0	25	3.4	1.9	0	3.4	2.3	0	2.6	0	2.5	2.6
Pedestrians	0	0	0	13	13	0	0	0	12	12	0	0	0	1	1	0	0	0	3	3	29
% Pedestrians	0	0	0	100	0.7	0	0	0	100	15	0	0	0	100	0.1	0	0	0	100	0.8	0.9

Maser Consulting

11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : NYS_ROUTE_9D_AND_BEEKMAN_ST_W_CHURCH_ST_389048_03-07-2017

Site Code :

Start Date : 3/7/2017

Page No : 2

	ROUTE 9D From North					W CHURCH ST From East					BEEKMAN ST From South					ROUTE 9D From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	126	66	0	0	192	3	5	3	0	11	0	56	3	0	59	6	2	38	0	46	308
07:00 AM	122	60	0	2	184	0	4	0	2	6	0	58	2	0	60	2	2	29	0	33	283
07:15 AM	101	44	0	1	146	6	4	0	1	11	0	77	4	0	81	4	0	45	1	50	288
07:30 AM	65	74	1	3	143	1	2	0	2	5	0	103	2	0	105	2	0	19	1	22	275
Total Volume	414	244	1	6	665	10	15	3	5	33	0	294	11	0	305	14	4	131	2	151	1154
% App. Total	62.3	36.7	0.2	0.9		30.3	45.5	9.1	15.2		0	96.4	3.6	0		9.3	2.6	86.8	1.3		
PHF	.821	.824	.250	.500	.866	.417	.750	.250	.625	.750	.000	.714	.688	.000	.726	.583	.500	.728	.500	.755	.937
Lights	410	217	1	0	628	10	15	2	0	27	0	278	10	0	288	14	4	124	0	142	1085
% Lights	99.0	88.9	100	0	94.4	100	100	66.7	0	81.8	0	94.6	90.9	0	94.4	100	100	94.7	0	94.0	94.0
Buses	1	15	0	0	16	0	0	1	0	1	0	8	1	0	9	0	0	6	0	6	32
% Buses	0.2	6.1	0	0	2.4	0	0	33.3	0	3.0	0	2.7	9.1	0	3.0	0	0	4.6	0	4.0	2.8
Trucks	3	12	0	0	15	0	0	0	0	0	0	8	0	0	8	0	0	1	0	1	24
% Trucks	0.7	4.9	0	0	2.3	0	0	0	0	0	0	2.7	0	0	2.6	0	0	0.8	0	0.7	2.1
Pedestrians	0	0	0	6	6	0	0	0	5	5	0	0	0	0	0	0	0	0	2	2	13
% Pedestrians	0	0	0	100	0.9	0	0	0	100	15.2	0	0	0	0	0	0	0	0	100	1.3	1.1

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : NYS_ROUTE_9D_AND_BEEKMAN_ST_W_CHURCH_ST_389048_03-07-2017

Site Code :

Start Date : 3/7/2017

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	ROUTE 9D From North					W CHURCH ST From East					BEEKMAN ST From South					ROUTE 9D From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	24	90	1	0	115	4	0	1	3	8	1	105	7	0	113	6	1	13	2	22	258
03:45 PM	21	99	1	2	123	1	1	1	5	8	0	72	4	2	78	4	1	19	0	24	233
Total	45	189	2	2	238	5	1	2	8	16	1	177	11	2	191	10	2	32	2	46	491
04:00 PM	29	106	2	0	137	4	3	1	4	12	1	94	3	5	103	5	2	51	3	61	313
04:15 PM	19	87	0	1	107	3	0	1	1	5	0	80	3	1	84	4	2	61	3	70	266
04:30 PM	26	111	1	2	140	2	2	1	2	7	0	117	2	0	119	5	2	55	1	63	329
04:45 PM	29	98	0	5	132	4	1	0	3	8	0	81	5	0	86	10	1	75	2	88	314
Total	103	402	3	8	516	13	6	3	10	32	1	372	13	6	392	24	7	242	9	282	1222
05:00 PM	25	88	0	1	114	1	0	0	2	3	0	89	6	0	95	5	2	63	2	72	284
05:15 PM	17	121	3	0	141	1	0	2	4	7	4	82	2	0	88	11	0	55	0	66	302
05:30 PM	21	132	3	0	156	0	0	4	0	4	6	93	6	0	105	5	2	97	1	105	370
05:45 PM	11	123	2	0	136	6	1	1	1	9	2	81	3	0	86	6	1	21	0	28	259
Total	74	464	8	1	547	8	1	7	7	23	12	345	17	0	374	27	5	236	3	271	1215
Grand Total	222	1055	13	11	1301	26	8	12	25	71	14	894	41	8	957	61	14	510	14	599	2928
Apprch %	17.1	81.1	1	0.8		36.6	11.3	16.9	35.2		1.5	93.4	4.3	0.8		10.2	2.3	85.1	2.3		
Total %	7.6	36	0.4	0.4	44.4	0.9	0.3	0.4	0.9	2.4	0.5	30.5	1.4	0.3	32.7	2.1	0.5	17.4	0.5	20.5	
Lights	214	1032	13	0	1259	24	8	12	0	44	14	864	35	0	913	60	14	499	0	573	2789
% Lights	96.4	97.8	100	0	96.8	92.3	100	100	0	62	100	96.6	85.4	0	95.4	98.4	100	97.8	0	95.7	95.3
Buses	5	16	0	0	21	1	0	0	0	1	0	20	6	0	26	0	0	6	0	6	54
% Buses	2.3	1.5	0	0	1.6	3.8	0	0	0	1.4	0	2.2	14.6	0	2.7	0	0	1.2	0	1	1.8
Trucks	3	7	0	0	10	1	0	0	0	1	0	10	0	0	10	1	0	5	0	6	27
% Trucks	1.4	0.7	0	0	0.8	3.8	0	0	0	1.4	0	1.1	0	0	1	1.6	0	1	0	1	0.9
Pedestrians	0	0	0	11	11	0	0	0	25	25	0	0	0	8	8	0	0	0	14	14	58
% Pedestrians	0	0	0	100	0.8	0	0	0	100	35.2	0	0	0	100	0.8	0	0	0	100	2.3	2

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : NYS_ROUTE_9D_AND_BEEKMAN_ST_W_CHURCH_ST_389048_03-07-2017

Site Code :

Start Date : 3/7/2017

Page No : 2

	ROUTE 9D From North					W CHURCH ST From East					BEEKMAN ST From South					ROUTE 9D From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	29	98	0	5	132	4	1	0	3	8	0	81	5	0	86	10	1	75	2	88	314
05:00 PM	25	88	0	1	114	1	0	0	2	3	0	89	6	0	95	5	2	63	2	72	284
05:15 PM	17	121	3	0	141	1	0	2	4	7	4	82	2	0	88	11	0	55	0	66	302
05:30 PM	21	132	3	0	156	0	0	4	0	4	6	93	6	0	105	5	2	97	1	105	370
Total Volume	92	439	6	6	543	6	1	6	9	22	10	345	19	0	374	31	5	290	5	331	1270
% App. Total	16.9	80.8	1.1	1.1		27.3	4.5	27.3	40.9		2.7	92.2	5.1	0		9.4	1.5	87.6	1.5		
PHF	.793	.831	.500	.300	.870	.375	.250	.375	.563	.688	.417	.927	.792	.000	.890	.705	.625	.747	.625	.788	.858
Lights	88	435	6	0	529	5	1	6	0	12	10	340	16	0	366	30	5	285	0	320	1227
% Lights	95.7	99.1	100	0	97.4	83.3	100	100	0	54.5	100	98.6	84.2	0	97.9	96.8	100	98.3	0	96.7	96.6
Buses	2	1	0	0	3	1	0	0	0	1	0	3	3	0	6	0	0	3	0	3	13
% Buses	2.2	0.2	0	0	0.6	16.7	0	0	0	4.5	0	0.9	15.8	0	1.6	0	0	1.0	0	0.9	1.0
Trucks	2	3	0	0	5	0	0	0	0	0	0	2	0	0	2	1	0	2	0	3	10
% Trucks	2.2	0.7	0	0	0.9	0	0	0	0	0	0	0.6	0	0	0.5	3.2	0	0.7	0	0.9	0.8
Pedestrians	0	0	0	6	6	0	0	0	9	9	0	0	0	0	0	0	0	0	5	5	20
% Pedestrians	0	0	0	100	1.1	0	0	0	100	40.9	0	0	0	0	0	0	0	0	100	1.5	1.6

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Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : NYS_ROUTE_9D_AND_BEEKMAN_ST_W_CHURCH_ST_389358_03-09-2017

Site Code :

Start Date : 3/9/2017

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	NYS ROUTE 9W From North					W CHURCH ST From East					NYS ROUTE 9W From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
05:30 PM	34	121	2	2	159	2	2	1	2	7	1	89	9	0	99	9	0	59	2	70	335
05:45 PM	15	131	3	0	149	2	0	0	1	3	0	102	12	0	114	5	3	65	5	78	344
Total	49	252	5	2	308	4	2	1	3	10	1	191	21	0	213	14	3	124	7	148	679
06:00 PM	28	93	3	1	125	3	0	0	1	4	1	85	5	0	91	4	0	21	0	25	245
06:15 PM	27	105	3	5	140	4	1	1	2	8	1	82	5	1	89	14	1	147	5	167	404
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	104	450	11	8	573	11	3	2	6	22	3	358	31	1	393	32	4	292	12	340	1328
Apprch %	18.2	78.5	1.9	1.4		50	13.6	9.1	27.3		0.8	91.1	7.9	0.3		9.4	1.2	85.9	3.5		
Total %	7.8	33.9	0.8	0.6	43.1	0.8	0.2	0.2	0.5	1.7	0.2	27	2.3	0.1	29.6	2.4	0.3	22	0.9	25.6	
Lights	99	448	11	0	558	10	3	2	0	15	3	354	29	0	386	31	4	289	0	324	1283
% Lights	95.2	99.6	100	0	97.4	90.9	100	100	0	68.2	100	98.9	93.5	0	98.2	96.9	100	99	0	95.3	96.6
Buses	4	1	0	0	5	0	0	0	0	0	0	2	2	0	4	0	0	2	0	2	11
% Buses	3.8	0.2	0	0	0.9	0	0	0	0	0	0	0.6	6.5	0	1	0	0	0.7	0	0.6	0.8
Trucks	1	1	0	0	2	1	0	0	0	1	0	2	0	0	2	1	0	1	0	2	7
% Trucks	1	0.2	0	0	0.3	9.1	0	0	0	4.5	0	0.6	0	0	0.5	3.1	0	0.3	0	0.6	0.5
Pedestrians	0	0	0	8	8	0	0	0	6	6	0	0	0	1	1	0	0	0	12	12	27
% Pedestrians	0	0	0	100	1.4	0	0	0	100	27.3	0	0	0	100	0.3	0	0	0	100	3.5	2

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : NYS_ROUTE_9D_AND_BEEKMAN_ST_W_CHURCH_ST_389358_03-09-2017

Site Code :

Start Date : 3/9/2017

Page No : 2

	NYS ROUTE 9W From North					W CHURCH ST From East					NYS ROUTE 9W From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 05:30 PM to 06:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:30 PM																					
05:30 PM	34	121	2	2	159	2	2	1	2	7	1	89	9	0	99	9	0	59	2	70	335
05:45 PM	15	131	3	0	149	2	0	0	1	3	0	102	12	0	114	5	3	65	5	78	344
06:00 PM	28	93	3	1	125	3	0	0	1	4	1	85	5	0	91	4	0	21	0	25	245
06:15 PM	27	105	3	5	140	4	1	1	2	8	1	82	5	1	89	14	1	147	5	167	404
Total Volume	104	450	11	8	573	11	3	2	6	22	3	358	31	1	393	32	4	292	12	340	1328
% App. Total	18.2	78.5	1.9	1.4		50	13.6	9.1	27.3		0.8	91.1	7.9	0.3		9.4	1.2	85.9	3.5		
PHF	.765	.859	.917	.400	.901	.688	.375	.500	.750	.688	.750	.877	.646	.250	.862	.571	.333	.497	.600	.509	.822
Lights	99	448	11	0	558	10	3	2	0	15	3	354	29	0	386	31	4	289	0	324	1283
% Lights	95.2	99.6	100	0	97.4	90.9	100	100	0	68.2	100	98.9	93.5	0	98.2	96.9	100	99.0	0	95.3	96.6
Buses	4	1	0	0	5	0	0	0	0	0	0	2	2	0	4	0	0	2	0	2	11
% Buses	3.8	0.2	0	0	0.9	0	0	0	0	0	0	0.6	6.5	0	1.0	0	0	0.7	0	0.6	0.8
Trucks	1	1	0	0	2	1	0	0	0	1	0	2	0	0	2	1	0	1	0	2	7
% Trucks	1.0	0.2	0	0	0.3	9.1	0	0	0	4.5	0	0.6	0	0	0.5	3.1	0	0.3	0	0.6	0.5
Pedestrians	0	0	0	8	8	0	0	0	6	6	0	0	0	1	1	0	0	0	12	12	27
% Pedestrians	0	0	0	100	1.4	0	0	0	100	27.3	0	0	0	100	0.3	0	0	0	100	3.5	2.0

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : NYS_ROUTE_9D_AND_MAIN_ST_CITY_HALL_DRIVEWAY_389053_03-07-2017

Site Code :

Start Date : 3/7/2017

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	ROUTE 9D From North					MAIN ST From East					ROUTE 9D From South					MINICIPAL PLAZA From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	29	16	1	46	10	2	1	3	16	1	42	0	4	47	0	0	0	0	0	109
06:45 AM	0	49	27	0	76	16	0	0	0	16	0	37	0	5	42	0	0	0	0	0	134
Total	0	78	43	1	122	26	2	1	3	32	1	79	0	9	89	0	0	0	0	0	243
07:00 AM	1	51	14	0	66	8	0	0	0	8	3	56	0	4	63	0	0	0	0	0	137
07:15 AM	1	29	22	0	52	23	2	6	0	31	2	67	1	5	75	0	1	0	1	2	160
07:30 AM	1	45	28	0	74	16	1	3	0	20	7	80	2	3	92	1	0	0	0	1	187
07:45 AM	6	65	38	0	109	15	2	2	0	19	3	54	1	1	59	0	0	0	0	0	187
Total	9	190	102	0	301	62	5	11	0	78	15	257	4	13	289	1	1	0	1	3	671
08:00 AM	0	41	39	0	80	31	0	2	1	34	0	65	2	4	71	0	4	1	0	5	190
08:15 AM	0	59	49	0	108	22	3	1	0	26	9	53	3	2	67	0	0	1	0	1	202
08:30 AM	2	78	53	0	133	25	1	1	0	27	6	106	0	4	116	0	2	2	1	5	281
08:45 AM	2	54	61	0	117	24	1	3	0	28	8	79	1	3	91	1	2	0	0	3	239
Total	4	232	202	0	438	102	5	7	1	115	23	303	6	13	345	1	8	4	1	14	912
09:00 AM	1	44	50	0	95	36	1	3	1	41	1	55	0	2	58	1	0	0	0	1	195
09:15 AM	0	44	49	0	93	30	0	1	0	31	4	46	1	3	54	0	1	0	1	2	180
Grand Total	14	588	446	1	1049	256	13	23	5	297	44	740	11	40	835	3	10	4	3	20	2201
Apprch %	1.3	56.1	42.5	0.1		86.2	4.4	7.7	1.7		5.3	88.6	1.3	4.8		15	50	20	15		
Total %	0.6	26.7	20.3	0	47.7	11.6	0.6	1	0.2	13.5	2	33.6	0.5	1.8	37.9	0.1	0.5	0.2	0.1	0.9	
Lights	14	557	411	0	982	242	13	23	0	278	37	697	11	0	745	3	10	4	0	17	2022
% Lights	100	94.7	92.2	0	93.6	94.5	100	100	0	93.6	84.1	94.2	100	0	89.2	100	100	100	0	85	91.9
Buses	0	14	13	0	27	3	0	0	0	3	4	25	0	0	29	0	0	0	0	0	59
% Buses	0	2.4	2.9	0	2.6	1.2	0	0	0	1	9.1	3.4	0	0	3.5	0	0	0	0	0	2.7
Trucks	0	17	22	0	39	11	0	0	0	11	3	18	0	0	21	0	0	0	0	0	71
% Trucks	0	2.9	4.9	0	3.7	4.3	0	0	0	3.7	6.8	2.4	0	0	2.5	0	0	0	0	0	3.2
Pedestrians	0	0	0	1	1	0	0	0	5	5	0	0	0	40	40	0	0	0	3	3	49
% Pedestrians	0	0	0	100	0.1	0	0	0	100	1.7	0	0	0	100	4.8	0	0	0	100	15	2.2

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11 Bradhurst Avenue

Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

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	ROUTE 9D From North					MAIN ST From East					ROUTE 9D From South					MINICIPAL PLAZA From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:15 AM																					
08:15 AM	0	59	49	0	108	22	3	1	0	26	9	53	3	2	67	0	0	1	0	1	202
08:30 AM	2	78	53	0	133	25	1	1	0	27	6	106	0	4	116	0	2	2	1	5	281
08:45 AM	2	54	61	0	117	24	1	3	0	28	8	79	1	3	91	1	2	0	0	3	239
09:00 AM	1	44	50	0	95	36	1	3	1	41	1	55	0	2	58	1	0	0	0	1	195
Total Volume	5	235	213	0	453	107	6	8	1	122	24	293	4	11	332	2	4	3	1	10	917
% App. Total	1.1	51.9	47	0		87.7	4.9	6.6	0.8		7.2	88.3	1.2	3.3		20	40	30	10		
PHF	.625	.753	.873	.000	.852	.743	.500	.667	.250	.744	.667	.691	.333	.688	.716	.500	.500	.375	.250	.500	.816
Lights	5	225	200	0	430	104	6	8	0	118	19	271	4	0	294	2	4	3	0	9	851
% Lights	100	95.7	93.9	0	94.9	97.2	100	100	0	96.7	79.2	92.5	100	0	88.6	100	100	100	0	90.0	92.8
Buses	0	2	5	0	7	1	0	0	0	1	3	13	0	0	16	0	0	0	0	0	24
% Buses	0	0.9	2.3	0	1.5	0.9	0	0	0	0.8	12.5	4.4	0	0	4.8	0	0	0	0	0	2.6
Trucks	0	8	8	0	16	2	0	0	0	2	2	9	0	0	11	0	0	0	0	0	29
% Trucks	0	3.4	3.8	0	3.5	1.9	0	0	0	1.6	8.3	3.1	0	0	3.3	0	0	0	0	0	3.2
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	11	11	0	0	0	1	1	13
% Pedestrians	0	0	0	0	0	0	0	0	100	0.8	0	0	0	100	3.3	0	0	0	100	10.0	1.4

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Groups Printed- Lights - Buses - Trucks - Pedestrians

	ROUTE 9D From North					MAIN ST From East					ROUTE 9D From South					MINICIPAL PLAZA From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	1	46	53	0	100	25	0	4	0	29	4	76	0	2	82	3	1	1	3	8	219
03:45 PM	1	50	51	0	102	25	0	2	3	30	1	58	0	5	64	1	3	4	0	8	204
Total	2	96	104	0	202	50	0	6	3	59	5	134	0	7	146	4	4	5	3	16	423
04:00 PM	0	58	56	0	114	25	1	4	1	31	3	69	0	0	72	1	2	3	0	6	223
04:15 PM	0	49	45	0	94	18	2	6	0	26	5	61	1	7	74	0	1	1	1	3	197
04:30 PM	0	67	47	0	114	33	0	5	1	39	3	78	0	1	82	0	0	2	0	2	237
04:45 PM	0	48	62	0	110	25	0	0	0	25	9	60	1	3	73	0	0	1	1	2	210
Total	0	222	210	0	432	101	3	15	2	121	20	268	2	11	301	1	3	7	2	13	867
05:00 PM	0	51	43	0	94	34	1	5	2	42	8	66	0	0	74	0	0	0	0	0	210
05:15 PM	0	71	62	0	133	27	0	4	0	31	12	57	0	3	72	1	1	0	0	2	238
05:30 PM	0	79	64	1	144	39	1	3	1	44	14	66	1	6	87	0	5	0	0	5	280
05:45 PM	0	65	57	0	122	28	0	4	0	32	3	52	0	8	63	0	1	0	0	1	218
Total	0	266	226	1	493	128	2	16	3	149	37	241	1	17	296	1	7	0	0	8	946
06:00 PM	0	42	49	0	91	34	0	5	0	39	3	56	1	3	63	0	0	0	0	0	193
06:15 PM	0	52	58	2	112	18	2	2	0	22	18	70	0	3	91	0	1	0	0	1	226
Grand Total	2	678	647	3	1330	331	7	44	8	390	83	769	4	41	897	6	15	12	5	38	2655
Apprch %	0.2	51	48.6	0.2		84.9	1.8	11.3	2.1		9.3	85.7	0.4	4.6		15.8	39.5	31.6	13.2		
Total %	0.1	25.5	24.4	0.1	50.1	12.5	0.3	1.7	0.3	14.7	3.1	29	0.2	1.5	33.8	0.2	0.6	0.5	0.2	1.4	
Lights	2	660	635	0	1297	324	7	42	0	373	75	735	4	0	814	6	15	12	0	33	2517
% Lights	100	97.3	98.1	0	97.5	97.9	100	95.5	0	95.6	90.4	95.6	100	0	90.7	100	100	100	0	86.8	94.8
Buses	0	11	8	0	19	3	0	0	0	3	7	25	0	0	32	0	0	0	0	0	54
% Buses	0	1.6	1.2	0	1.4	0.9	0	0	0	0.8	8.4	3.3	0	0	3.6	0	0	0	0	0	2
Trucks	0	7	4	0	11	4	0	2	0	6	1	9	0	0	10	0	0	0	0	0	27
% Trucks	0	1	0.6	0	0.8	1.2	0	4.5	0	1.5	1.2	1.2	0	0	1.1	0	0	0	0	0	1
Pedestrians	0	0	0	3	3	0	0	0	8	8	0	0	0	41	41	0	0	0	5	5	57
% Pedestrians	0	0	0	100	0.2	0	0	0	100	2.1	0	0	0	100	4.6	0	0	0	100	13.2	2.1

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Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	51	43	0	94	34	1	5	2	42	8	66	0	0	74	0	0	0	0	0	210
05:15 PM	0	71	62	0	133	27	0	4	0	31	12	57	0	3	72	1	1	0	0	2	238
05:30 PM	0	79	64	1	144	39	1	3	1	44	14	66	1	6	87	0	5	0	0	5	280
05:45 PM	0	65	57	0	122	28	0	4	0	32	3	52	0	8	63	0	1	0	0	1	218
Total Volume	0	266	226	1	493	128	2	16	3	149	37	241	1	17	296	1	7	0	0	8	946
% App. Total	0	54	45.8	0.2		85.9	1.3	10.7	2		12.5	81.4	0.3	5.7		12.5	87.5	0	0		
PHF	.000	.842	.883	.250	.856	.821	.500	.800	.375	.847	.661	.913	.250	.531	.851	.250	.350	.000	.000	.400	.845
Lights	0	263	224	0	487	126	2	16	0	144	34	238	1	0	273	1	7	0	0	8	912
% Lights	0	98.9	99.1	0	98.8	98.4	100	100	0	96.6	91.9	98.8	100	0	92.2	100	100	0	0	100	96.4
Buses	0	1	0	0	1	1	0	0	0	1	3	3	0	0	6	0	0	0	0	0	8
% Buses	0	0.4	0	0	0.2	0.8	0	0	0	0.7	8.1	1.2	0	0	2.0	0	0	0	0	0	0.8
Trucks	0	2	2	0	4	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
% Trucks	0	0.8	0.9	0	0.8	0.8	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0.5
Pedestrians	0	0	0	1	1	0	0	0	3	3	0	0	0	17	17	0	0	0	0	0	21
% Pedestrians	0	0	0	100	0.2	0	0	0	100	2.0	0	0	0	100	5.7	0	0	0	0	0	2.2