

775 NORTH MAIN STREET
OFFICE EXPANSION
TRAFFIC IMPACT AND
PARKING STUDY
TOWN OF NEW HEMPSTEAD, NY

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INTRODUCTION

The existing office building located at 775 North Main Street (Route 45) is planning an expansion of 18,554 square feet. The project is located on State Route 45 (North Main Street). The project is located on Section 42.18, Block 2, Lot 24. The current office space is 26,885 sq ft and has 114 parking spaces. With the proposed addition, the zoning requires 182 parking spaces. The plan shows a total of 139 parking spaces with 102 parking spaces built and 37 parking spaces held in reserve. A variance for 43 parking spaces will be required. **Figure 1** shows the project location. Our parking study is based on the plan prepared by Atzl, Nasher & Zigler, P.C. dated October 31, 2022. The proposed project will use the current entrance/exit. The project Location is shown on **Figure 1**.

The purpose of this study is to determine the potential traffic impact of the proposed health center additions on the adjacent roadway network and, where necessary, make recommendations for roadway improvements necessary to serve the existing and future traffic volumes.

EXISTING ROADWAY NETWORK

The proposed health center addition would be located on Route 45 adjacent to the existing health center. A description of the existing local roadway system is provided below.

- **New York State Route 45** is a roadway under the jurisdiction of the NYSDOT. In the vicinity of the site, the roadway has a north-south orientation. The roadway originates to the north at Route 202 in Mount Ivy at a signalized “T”-intersection. From this point, the roadway continues southbound ending at the New Jersey border with New York in the Village of Chestnut Ridge.

In the immediate area of the site, Route 45 consists of one lane in each direction and then widens out at the intersection of Route 45/New Hempstead Road which is signalized. The main entrance to the Village of New Square is located at the intersection of Route 45/Washington Avenue. This intersection is also signalized. Development in the immediate vicinity of New Square is mixed. There is the Refuah Health Center and wedding hall all located adjacent to New Square along Route 45. Further to the north, there are single family homes on both sides of Route 45. To the south, the development is mixed. While there are residential homes along Route 45, Hillcrest, there are two strip shopping centers, a gas station, bakery, and other commercial businesses. The posted speed limit on Route

45 is 45 mph in the vicinity of New Square. The speed limit changes to 30 mph as you approach Hillcrest.

- **New Hempstead Road** is also referred to as County Road 80 and runs east/west in the vicinity of the site. New Hempstead Road is a one-lane roadway in each direction beginning at Main Street in New City and continuing west. New Hempstead Road intersects with Exit 11 of the Palisades Interstate Parkway. Both the northbound and southbound ramps intersection with New Hempstead Road are signalized. In the vicinity of the Village of New Square, the development is comprised of single-family homes, an office building located on the northeast corner of Route 45 and New Hempstead Road, and Freidwald House, a nursing home. The posted speed limit is 30 mph.
- **Washington Avenue** is the main entrance/exit to the Village of New Square. Washington Avenue winds through the village providing access to the internal street system. The intersection of Route 45/Washington Avenue is signalized. Washington Avenue is one lane in each direction. Within New Square, the intersections are controlled by stop signs. The posted speed limit is 30 mph.

EXISTING TRAFFIC CONDITIONS

The existing weekday traffic volumes were based on traffic counts conducted on November 1, 2023 from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. The following intersections have been included in the study area:

- Route 45/Washington Avenue
- Route 45/New Hempstead Road
- Route 45/775 Route 45

The 2023 balanced traffic volumes are shown in **Figure 2** shows the 8:00-9:00 AM peak hour volumes. **Figure 3** shows the evening 5:00 -6:00 PM peak hour volumes.

Capacity Analysis - Existing Conditions

The Synchro 11 software (standard Highway Capacity Manual) was used to calculate the Level of Service for each intersection. The traffic analysis is performed by calculating the capacity of the facility (e.g., intersection approach roadway) to process traffic. In general, the capacity of a facility is defined as the maximum number of vehicles or pedestrians that can reasonably be expected to traverse a point or section of roadway during a

given time period under prevailing roadway, traffic, and control conditions. Therefore, capacity analyses are a set of procedures used to estimate the traffic carrying capabilities of facilities over a range of defined operational conditions. They provide tools for the analysis and improvement of existing facilities and for the planning and design of future facilities.

Signalized Intersections

The operation of signalized intersections in the Study Area was analyzed by applying the Percentile Delay Methodology included in the Synchro 10 traffic signal software (latest version approved by NYSDOT). This methodology builds on the methodologies presented in the 2016 *Highway Capacity Manual* (HCM2016) for signalized intersections and evaluates signalized intersections for average control delay per vehicle and Level of Service (LOS).

LOS can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Delay quantifies the increase in travel time due to traffic signal control. It is also a surrogate measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operation with a control delay of 10 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is low and ether progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operation with a control delay between 10 and 20 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is low and ether progression is exceptionally favorable or the cycle length is very short. More vehicles will stop than with LOS A.

LOS C describes operation with a control delay between 20 and 35 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operation with a control delay between 35 and 55 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operation with a control delay between 55 and 80 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operation with a control delay is greater than 80 seconds per vehicle or less and volume-to capacity ratio greater than 1.0. This level is typically assigned when the volume-to capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

A lane group can incur a delay less than 80 seconds per vehicle when the volume-to capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 seconds per vehicle represents failure from a delay perspective.)

The control delay criteria for the range of service levels for signalized intersections are shown in **Table 1**.

Control Delay Per Vehicle	Level of Service (LOS)	
	v/c ratio ≤ 1.0	v/c ratio ≥ 1.0
≤10.0 Seconds	A	F
>10.0 and 20.0 seconds	B	F
>20.0 and 35.0 seconds	C	F
>35.0 and 55.0 seconds	D	F
>55.0 and 80.0 seconds	E	F
>80.0 seconds	F	F

Source: Transportation Research Board 2016 *Highway Capacity Manual*
 Note: (1) for approach- based and intersection wide assessments, LOS is defined solely by control delay.

Unsignalized Intersections

LOS for a two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections is determined by the computed or measured control

delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns at TWSC intersections and for all movements at AWSC intersections. LOS is not defined for the intersection as a whole for TWSC and AWSC intersections.

The LOS criteria for both TWSC and AWSC unsignalized intersections are summarized in **Table 2**.

Control Delay Per Vehicle	Level of Service (LOS)	
	v/c ratio \leq 1.0	v/c ratio \geq 1.0
\leq 10.0 Seconds	A	F
>10.0 and 15.0 seconds	B	F
>15.0 and 25.0 seconds	C	F
>25.0 and 35.0 seconds	D	F
>35.0 and 50.0 seconds	E	F
>50.0 seconds	F	F

Source: Transportation Research Board 2016 *Highway Capacity Manual*
 Note: (1) For TWSC intersections, the LOS criteria apply to each lane on a given approach and to each approach on the minor street (for TWSC intersections.) LOS is not calculated for major-street approaches or for the intersection as a whole.

Note that the LOS criteria for unsignalized intersections are somewhat different from the criteria used in signalized intersections. At TWSC intersections, drivers on the stop-controlled approaches are required to select gaps in the major-street flow in order to execute crossing or turning maneuvers. In the presence of a queue, each drive on the controlled approach must also use some time to move into the front-of-queue position and prepare to evaluate gaps in the major-street flow. AWSC intersections require drivers on all approaches to stop before proceeding into the intersection.

The signal timing and phasing plans for the signalized intersections in the study area were obtained from the NYSDOT Region 8 office. These signal timings were used for the analysis of the existing conditions. The results of the capacity analysis are shown in **Table 3** for the existing weekday peak periods.

The results are as follows for the weekday peak periods:

Route 45/Washington Avenue: During both peak hours, the Route 45 northbound combination through/right-turn lane is currently operating at LOS “F.” The Route 45 southbound combination left-turn/through lane is currently operating at LOS “F” during both peak hours. The overall intersection LOS is operating at LOS “F” in both peak hours.

TABLE 3						
2023 EXISTING CONDITIONS						
SIGNALIZED INTERSECTIONS						
Intersection	8:00 AM-9:00 AM			5:00 PM- 6:00 PM		
	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay
Route 45/Washington Avenue						
Route 45						
Northbound Th + Rt	F	1.16	110.4	F	1.31	179.9
Southbound Lt + Th	F	1.18	121.2	F	1.20	131.2
Washington Avenue						
Westbound Lt + Rt	B	0.51	10.8	B	0.57	12.7
Overall	F		97.9	F		126.2
Route 45/New Hempstead Road						
Route 45						
Northbound Lt	C	0.32	32.2	C	0.30	31.4
Northbound Th + Rt	D	0.78	44.0	D	0.66	36.9
Southbound Lt	D	0.67	40.9	C	0.60	33.8
Southbound Th + Rt	D	0.70	37.1	C	0.68	33.3
New Hempstead Road						
Eastbound Lt	B	0.16	17.8	B	0.12	15.6
Eastbound Th + Rt	D	0.85	47.3	D	0.78	39.5
Westbound Lt	C	0.53	24.3	C	0.56	22.2
Westbound Th + Rt	C	0.68	33.3	C	0.67	30.6
Overall	D		38.4	C		33.0

TABLE 3						
2023 EXISTING CONDITIONS						
UNSIGNALIZED INTERSECTIONS						
Intersection	8:00 AM-9:00 AM			4:15 PM-5:15 PM		
	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay
Route 45/775 North Main Street						
Route 45						
Northbound Lt	A	0.00	8.4	A	0.01	8.4
Refuah Driveway						
Eastbound Lt + Rt	B	0.00	11.4	C	0.09	17.9

c The Route 45 northbound exclusive left-turn lane and combination thru/right turn lane are operating at LOS “D” in the AM peak hour. The New Hempstead Road combination eastbound thru/right-turn lane is operating at LOS “D” and overall intersection is operating at LOS “D” in the AM peak hour. The northbound combination thru/right turn lane and the combination eastbound thru/right-turn lane is operating at LOS “D” in the PM peak hour.

The remainder of the approaches are currently operating at LOS “D” or better on both peak hours.

2026 NO-BUILD CONDITIONS

It is expected that the new office building expansion will open in 2026. The background growth rate for Route 45 is 1.01%. The growth rate was calculated by multiplying the 1.01% for three years compounded resulting in a growth of 1.03%. The existing traffic volumes were multiplied by this factor to develop the 2026 No-Build traffic volumes. Figures 3 and 4 show the AM and PM peak hour volumes, respectively.

The results are as follows for the weekday peak periods are shown in **Table 4**.

Route 45/Washington Avenue: There will be no change in the LOS. The average vehicle delays and vehicle queues will get worse in both peak hours.

Route 45/Washington Avenue: The Route 45 southbound exclusive left-turn lane is projected to change from LOS “C” to “D” in the PM peak hour.

The remainder of the approaches will remain at their existing condition LOS.

2026 BUILD CONDITIONS

The existing office building located at 775 North Main Street (Route 45) is planning an expansion of 18,554 square feet. The project is located on State Route 45 (North Main Street). The project is located on Section 42.18, Block 2, Lot 24. The current office space is 26,885 sq ft and has 114 parking spaces. With the proposed addition, the zoning requires 182 parking spaces. The plan shows a total of 139 parking spaces with 102 parking spaces built and 37 parking spaces held in reserve. A variance for 43 parking spaces will be required.

To calculate the number of vehicular trips generated by the two clinics, we used the Institute of Transportation Engineers, 11th Edition, “Trip Generation Manual” Land Use 710 for the office. **Table 5** summarizes the number of vehicle trips that will be generated by this project.

TABLE 4						
2026 NO-BUILD CONDITIONS SIGNALIZED INTERSECTIONS						
Intersection	8:00 AM-9:00 AM			5:00 PM- 6:00 PM		
	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay
Route 45/Washington Avenue						
Route 45						
Northbound Th + Rt	F	1.44	229.2	F	1.37	200.0
Southbound Lt + Th	F	1.36	198.1	F	1.26	157.7
Washington Avenue						
Westbound Lt + Rt	B	0.59	12.3	B	0.62	13.4
Overall	F		178.2	F		145.5
Route 45/New Hempstead Road						
Route 45						
Northbound Lt	C	0.33	32.5	C	0.31	31.7
Northbound Th + Rt	D	0.79	44.9	D	0.66	37.4
Southbound Lt	D	0.70	43.3	D	0.63	35.8
Southbound Th + Rt	D	0.72	38.2	C	0.70	34.0
New Hempstead Road						
Eastbound Lt	B	0.18	18.4	B	0.13	16.1
Eastbound Th + Rt	D	0.86	49.0	D	0.79	40.6
Westbound Lt	C	0.57	26.4	C	0.59	23.8
Westbound Th + Rt	C	0.75	37.9	C	0.68	31.6
Overall	D		40.5	C		34.0

TABLE 4						
2026 NO-BUILD CONDITIONS UNSIGNALIZED INTERSECTIONS						
Intersection	8:00 AM-9:00 AM			4:15 PM-5:15 PM		
	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay
Route 45/775 North Main Street						
Route 45						
Northbound Lt	A	0.00	8.5	A	0.01	8.5
Refuah Driveway						
Eastbound Lt + Rt	B	0.00	11.6	C	0.10	18.6

TABLE 5- Calculation of Weekday Peak Hour Trips	
General Office – 18,554 sq. ft.	
Morning Peak Hour	Afternoon Peak Hour
Total Trips = 2.16 x 18,554 sq. ft. = 40 trips	Total Trips = 2.21 x 18,554 sq. ft.= 41 trips
Trips Entering = 0.88 x 40 trips = 35 trips	Trips Entering = 0.17 x 41 trips = 7 trips
Trips Exiting = 0.12 x 40 trips = 5 trips	Trips Exiting = 0.83 x 41 trips = 34 trips

The vehicle trips generated by the proposed addition we assigned to the street network based on the existing traffic flow. **Figure 6** shows the trip distribution. **Figures 7 and 8** show the AM and PM peak hour volumes, respectively. The results are shown in **Table 6** for the 2026 Build weekday peak periods

Route 45/Washington Avenue: There will be no change in the LOS. The average vehicle delays and vehicle queues will get worse in both peak hours.

Route 45/Washington Avenue: The New Hempstead Road westbound combination thru/right turn lane is projected to change from LOS “C” to “D” in the AM peak hour.

The remainder of the approaches will remain at their existing condition LOS.

NYSDOT Letter Dated March 1, 2010

NYSDOT has declared this section of Route 45 a Priority Investigation Location (PIL) from reference marker 45 8501 1050 to 45 8501 1055 which includes the section of Route 45 in front of the health center. One aspect of the mitigation is to upgrade the existing traffic signal by replacing the existing traffic signal heads with 12” LED heads. There are two issues with this item. First is whether the existing signal pole foundations are sized properly to take these additional loadings and second whether the height of the traffic signals will still provide the minimum clearance required.

The operating conditions of the Route 45/Washington Avenue intersection and that of the Route 45/Refuah driveways were also discussed and vehicle queuing was the issue. The results of the 2026 Build 95% queue analysis are shown in **Table 7**.

The vehicle queues extend past the available storage length for the Route 45 southbound exclusive left-turn lane for all time periods and for the New Hempstead Road westbound exclusive left-turn lane for all periods except the existing and 2026 no-build AM peak hour.

TABLE 6						
2026 BUILD CONDITIONS						
SIGNALIZED INTERSECTIONS						
Intersection	8:00 AM-9:00 AM			5:00 PM- 6:00 PM		
	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay
Route 45/Washington Avenue						
Route 45						
Northbound Th + Rt	F	1.46	236.2	F	1.38	203.8
Southbound Lt + Th	F	1.38	204.7	F	1.33	187.5
Washington Avenue						
Westbound Lt + Rt	B	0.59	12.2	B	0.62	13.4
Overall	F		183.8	F		157.7
Route 45/New Hempstead Road						
Route 45						
Northbound Lt	C	0.35	33.5	C	0.31	31.8
Northbound Th + Rt	D	0.79	45.5	D	0.67	37.7
Southbound Lt	D	0.71	43.6	D	0.64	35.9
Southbound Th + Rt	D	0.74	38.9	C	0.70	34.0
New Hempstead Road						
Eastbound Lt	B	0.18	18.4	B	0.13	16.1
Eastbound Th + Rt	D	0.86	49.3	D	0.79	40.7
Westbound Lt	C	0.60	27.8	C	0.59	23.9
Westbound Th + Rt	D	0.74	37.5	C	0.68	31.6
Overall	D		40.8	C		34.1

TABLE 6						
2026 BUILD CONDITIONS						
UNSIGNALIZED INTERSECTIONS						
Intersection	8:00 AM-9:00 AM			4:15 PM-5:15 PM		
	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay
Route 45/775 North Main Street						
Route 45						
Northbound Lt	A	0.01	8.6	A	0.02	8.5
Refuah Driveway						
Eastbound Lt + Rt	B	0.02	13.8	C	0.19	17.2

TABLE 7
95 % VEHICLE QUEUE

	Distance	EXISTING		2026 NO-BUILD		2026 BUILD	
		AM	PM	AM	PM	AM	PM
Route 45/Washington Avenue							
Route 45							
Northbound Th + Rt	500	374	389	430	405	434	405
Southbound Lt + Th	500	311	289	331	297	334	315
Washington Avenue							
Westbound Lt + Rt	200	53	73	69	85	70	85
Overall							
Route 45/New Hempstead Road							
Route 45							
Northbound Lt	100	89	83	92	83	92	85
Northbound Th + Rt	500	326	244	336	251	337	256
Southbound Lt	100	164	143	160	155	166	154
Southbound Th + Rt	500	346	330	365	342	384	343
New Hempstead Road							
Eastbound Lt	100	43	33	45	35	45	35
Eastbound Th + Rt	500	458	341	487	358	495	359
Westbound Lt	115	111	128	115	134	125	135
Westbound Th + Rt	500	441	403	470	435	470	436
Overall							
Route 45/775 North Main Street							
Route 45							
Northbound Lt	500	0	0	0	0	0	0
775 North Main Street							
Eastbound Lt + Rt	75	0	8	0	8	0	23

Queue length extends more than one block

2026 BUILD CONDITIONS WITH MITIGATION

Table 8 shows a comparison of the level of service for the 2026 No-Build, 2026 Build, and 2026 Build with mitigation for the Route 45/Washington Avenue intersection. The Route 45/Washington Avenue intersection will be reconstructed with the following improvements:

- Add exclusive Route 45 southbound left-turn lane
- Add exclusive Route 45 northbound right-turn lane
- The Washington Avenue westbound approach will have exclusive left and right turn lanes.
- A new controller will be installed.

The Synchro 11 analysis has been rerun with these improvements and the results are summarized in **Table 8**.

Route 45/Washington Avenue

With the proposed improvements, all of the approaches will operate at LOS “C or better. More importantly, the LOS “F” condition on the Route 45 northbound and southbound approached will now operate at LOS “C”, “B” or “A” depending on the peak hour. The northbound and southbound 95 % vehicle queue lengths will substantially decrease. We have shown the proposed mitigation for informational purposes only. NYTSDOT needs to undertake this project to improve the traffic flow and reduce crashes.

PARKING STUDY

We conducted a parking accumulation study from 8 AM to 6 PM. For each row in the parking lot, we counted the number of cars parked once per 30 minutes. **Figure 9** shows the map of the parking lot with the ROW designations. The parking study was conducted on Tuesday, November 8, 2022, and Thursday, November 10, 2022. Both days were normal workdays.

Tables 9 and 10 summarize the Half-hour counts for the parking study. There are a total of 114 parking spaces on the side and rear of the building. The maximum capacity occurred at 1:00 PM on November 8, 2022, when 42 cars were parked. The occupancy rate was 36.84%. On November 10, 2022, the peak parking occupancy occurred at 11:00 AM, 12:30 PM, and 1:00 PM when 40 cars were parked. The occupancy rate was 35.09%.

In addition to the parking study, we have also used two other sources of information to calculate how many parking spaces are required for the office space. The first source is the ITE Parking Generation Manual, 5th Edition for Land Use 710 (Office). The formula to calculate the number of parking spaces is

TABLE 82026 BUILD CONDITIONS WITH MITIGATION
SIGNALIZED INTERSECTIONS

Intersection	2026 BUILD					
	8:00 AM-9:00 AM			5:00 PM- 6:00 PM		
	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay
Route 45/Washington Avenue						
Route 45						
Northbound Th + Rt	F	1.46	236.2	F	1.38	203.8
Southbound Lt + Th	F	1.38	204.7	F	1.33	187.5
Northbound Th						
Northbound Rt						
Southbound Lt + Th						
Southbound Th						
Washington Avenue						
Westbound Lt + Rt	B	0.59	12.2	B	0.62	13.4
Westbound Lt						
Westbound Rt						
Overall	F		183.8	F		157.7

for the peak period parking demand which is from 10:00 AM to 3:00 PM, the formula is $P=2.15x+34.60$ per 1,000 gross sq. ft. The P is the number of cars parked. The x is the square footage of the building divided by 1,000 sq. ft. Using the formula, the maximum parking spaces required would be 132 for 45,439 sq ft of office space. According to the zoning code for the Village of New Hempstead, the parking requirement would be 182 spaces.

To determine the number of vehicular trips generated by this proposed development, the Institute of Transportation Engineers “Trip Generation Manual” 11th Edition, Land Use Code 710 (General Office) was used for the office space. **Table 11** shows the calculations of the peak hour trips for the general office space.

Table 12 summarizes the total number of cars entering and exiting each 30-minute period for the proposed office space. We then added the number of existing vehicles parked each half hour from our survey to calculate parking occupancy with the construction of the 18,554 sq. ft of additional office space. The data in **Table 13** shows the number of vehicles entering and exiting the parking lot in 30-minute segments for the existing and proposed office building. The results of the analysis show that the peak parking occurred between 1:00 PM and 1:30 PM when a total of 78 vehicles were parked. The parking occupancy rate is 76.5% based on 102 parking spaces being constructed.

We have compared the parking requirements of the Village to the ITE Parking Generation Manual 5th Edition.

Development Type	Village of New Hempstead Zoning	ITE Parking Generation
Office	182	132
Total	182	132

CRASH ANALYSIS

We obtained the crash data from 2017 to 2022 from NYSDOT for the Route 45/Washington Avenue, Route 45/775 Router 45, and Route 45/New Hempstead Road.

Table 14 summarizes the crash data by intersection for 2017. Overall, there were 37 crashes with 9 injuries from these crashes. On New Hempstead Road at Route 45, there were a total of 9 crashes. There were 3 rear-end, 1 left turn, 1 overtaking, 1 right turn and 3 other. There was 1 left turn crash on Rensselaer at Route 45. There were 27 crashes on Route 45 between New Hempstead Road and Washington Avenue. There were 11 rear-end, 1 overtaking, 7 other, 4 right angle, 2 left turn, 1 right turn, and 1 sideswipe.

Table 15 summarizes the crash data by intersection for 2018. There was a total of 45 crashes with 13 injuries from these crashes. On New Hempstead Road at Route 45, there were a total of 3 crashes. There were 2 rear-end and one overtaking. On Washington Avenue there were a total of 3 crashes. There was 1 rear end, 1 other, and 1 left turn. There were 39 crashes on Route 45 between New Hempstead Road and Washington Avenue. There were 20 rear-end, 7 overtaking, 2 other, 2 unknown, 3 right angle, 4 left turn, and 1 head-on.

Table 16 summarizes the crash data by intersection for 2019. There was a total of 41 crashes with 13 injuries from these crashes. On New Hempstead Road at Route 45, there were a total of 5 crashes. There were 3 rear-end and one overtaking, and 1 other. On Washington Avenue there was 1 overtaking crash. There were 34 crashes on Route 45 between New Hempstead Road and Washington Avenue. There were 14 rear-end, 2 overtaking, 7 other, 1 unknown, 6 right angle, 3 left turn, and 1 right turn.

Table 17 summarizes the crash data by intersection for 2020. There was a total of 39 crashes with 8 injuries from these crashes. On New Hempstead Road at Route 45, there were a total of 5 crashes. There were 2 other, 1 right angle, 1 rear end, and 1 overtaking. and one overtaking. On Washington Avenue there was 1 other crash. There were 33 crashes on Route 45 between New Hempstead Road and Washington Avenue. There were 13 rear-end, 6 other, 7 right angle, 1 left turn, 2 right run, 2 sideswipe, 1 overtaking and 1 head-on.

Table 18 summarizes the crash data by intersection for 2021. There was a total of 34 crashes with 8 injuries from these crashes. On New Hempstead Road at Route 45, there was 1 overtaking crash. On Greenridge Way, there was 1 right angle crash. There were 32 crashes on Route 45 between new Hempstead Road and Washington Avenue. There were 16 rear-end, 4 other, 4 overtaking, 4 right angle, 1 right turn, 2 left turn, and 1 unknown.

Table 19 summarizes the crash data by intersection for 2022. There was a total of 44 crashes with 8 injuries and 1 fatality from these crashes. On New Hempstead Road at Route 45, there was 1 rear end and 1 other type crash. On Washington Avenue, there was 1 rear end crash. There was 1 crash on an unnamed street. There were 40 crashes on Route 45 between New Hempstead Road and Washington Avenue. There were 17 rear-end, 13 other, 5 left turn, and 5 right angle.

Many of these crashes are because Route 45 is one lane in each direction and drivers have to stop in traffic to wait for a gap to make a left turn causing rear-end crashes. As noted in the NYSDOT PIL report, this section of Route 45 needs to be widened to include at a minimum a two-way left turn lane and possible widening out to two lanes in each direction.

TABLE 14

	Crash Date	Crash Time	Crash Severity	Collision Type	Light Conditions	Road Surface Conditions	Weather Conditions	Closest Cross Street	Direction From	Distance From	On Street
1	2017-01-28T00:00:00	9:03 PM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DARK-ROAD LIGHTED	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
2	2017-01-30T00:00:00	6:50 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
3	2017-05-28T00:00:00	12:00 PM	INJURY	OTHER	DAYLIGHT	DRY	CLOUDY	[Route] 45		8	0 NEW HEMPSTEAD RD
4	2017-06-25T00:00:00	8:22 AM	INJURY	RIGHT TURN (WITH OTHER CAR)	DAYLIGHT	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
5	2017-08-02T00:00:00	9:24 AM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
6	2017-08-23T00:00:00	2:02 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
7	2017-08-28T00:00:00	4:10 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
8	2017-11-26T00:00:00	7:37 PM	INJURY	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
9	2017-11-26T00:00:00	9:45 PM	PROPERTY DAMAGE	OVERTAKING	DARK-ROAD LIGHTED	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
10	2017-07-19T00:00:00	4:48 PM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DAYLIGHT	DRY	CLEAR	N MAIN ST			0 RENSSELAER DR
11	2017-03-20T00:00:00	8:30 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		8	0 ROUTE 45
12	2017-03-18T00:00:00	10:43 PM	PROPERTY DAMAGE	OVERTAKING	DARK-ROAD LIGHTED	DRY	CLOUDY	ROVITZ PL		1	23 ROUTE 45
13	2017-04-07T00:00:00	3:15 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	GREENRIDGE WAY		7	0 ROUTE 45
14	2017-06-15T00:00:00	3:12 PM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	Old Schoolhouse Rd		1	48 ROUTE 45
15	2017-06-16T00:00:00	11:33 AM	PROPERTY DAMAGE	OTHER	DAYLIGHT	WET	RAIN	NEW HEMPSTEAD RD		1	18 ROUTE 45
16	2017-06-02T00:00:00	7:10 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		4	6 ROUTE 45
17	2017-06-29T00:00:00	10:28 AM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		4	30 ROUTE 45
18	2017-07-14T00:00:00	8:01 PM	PROPERTY DAMAGE	REAR END	DUSK	WET	CLOUDY	NEW HEMPSTEAD RD		8	0 ROUTE 45
19	2017-08-01T00:00:00	1:55 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 ROUTE 45
20	2017-08-16T00:00:00	4:55 PM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	RENSSELAER DR		1	0 ROUTE 45
21	2017-08-27T00:00:00	2:25 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		8	0 ROUTE 45
22	2017-10-20T00:00:00	6:40 PM	PROPERTY DAMAGE	OTHER	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		4	15 ROUTE 45
23	2017-10-30T00:00:00	2:53 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 ROUTE 45
24	2017-12-08T00:00:00	6:20 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD UNLIGHTED	DRY	CLOUDY	NEW HEMPSTEAD RD		1	46 ROUTE 45
25	2017-12-14T00:00:00	10:57 PM	INJURY	LEFT TURN (WITH OTHER CAR)	DARK-ROAD LIGHTED	DRY	CLEAR	Driveway		4	63 ROUTE 45
26	2017-03-09T00:00:00	9:56 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		7	0 ROUTE 45
27	2017-05-13T00:00:00	2:20 PM	INJURY	RIGHT ANGLE	DAYLIGHT	WET	RAIN	NEW HEMPSTEAD RD		8	0 ROUTE 45
28	2017-06-12T00:00:00	6:09 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	ROVITZ PL		1	61 ROUTE 45
29	2017-06-29T00:00:00	8:19 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 ROUTE 45
30	2017-10-18T00:00:00	4:38 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		4	15 ROUTE 45
31	2017-11-04T00:00:00	10:43 AM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 ROUTE 45
32	2017-10-27T00:00:00	11:30 AM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		7	0 ROUTE 45
33	2017-11-06T00:00:00	10:45 PM	PROPERTY DAMAGE	LEFT TURN (WITH OTHER CAR)	DARK-ROAD LIGHTED	DRY	CLEAR	Greenridge Way		4	7 ROUTE 45
34	2017-11-09T00:00:00	10:44 AM	PROPERTY DAMAGE	RIGHT TURN (WITH OTHER CAR)	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		4	24 ROUTE 45
35	2017-05-11T00:00:00	8:20 PM	PROPERTY DAMAGE	OTHER	DUSK	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 ROUTE 45
36	2017-06-09T00:00:00	8:05 AM	INJURY	OTHER	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		4	46 ROUTE 45
37	2017-12-06T00:00:00	3:00 PM	PROPERTY DAMAGE	SIDESWIPE	DAYLIGHT	DRY	CLOUDY	NEW HEMPSTEAD RD		8	0 ROUTE 45

TABLE 15

	Crash Date	Crash Time	Crash Severity	Collision Type	Light Conditions	Road Surface Conditions	Weather Conditions	Closest Cross Street	Direction From	Distance From	On Street
1	2018-04-03T00:00:00	3:03 PM	INJURY	REAR END	DAYLIGHT	WET	RAIN	[Route] 45		8	0 NEW HEMPSTEAD RD
2	2018-06-14T00:00:00	8:55 PM	INJURY	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
3	2018-08-23T00:00:00	10:45 PM	PROPERTY DAMAGE	OVERTAKING	DARK-ROAD LIGHTED	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
4	2018-01-03T00:00:00	9:30 AM	PROPERTY DAMAGE	LEFT TURN (WITH OTHER CAR)	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
5	2018-01-22T00:00:00	4:51 PM	PROPERTY DAMAGE	OVERTAKING	DUSK	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
6	2018-01-12T00:00:00	12:33 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	RAIN	GREENRIDGE WAY		7	0 Route 45
7	2018-02-06T00:00:00	12:00 AM	PROPERTY DAMAGE	OVERTAKING	UNKNOWN	UNKNOWN	UNKNOWN	NEW HEMPSTEAD RD		8	0 Route 45
8	2018-02-21T00:00:00	8:11 PM	INJURY	OVERTAKING	DARK-ROAD LIGHTED	DRY	CLOUDY	WASHINGTON AVE		8	0 Route 45
9	2018-02-26T00:00:00	4:15 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	RENSSELAER DR		4	9 Route 45
10	2018-02-27T00:00:00	1:19 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		7	0 Route 45
11	2018-03-10T00:00:00	12:36 PM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLOUDY	NEW HEMPSTEAD RD		8	0 Route 45
12	2018-03-10T00:00:00	9:32 AM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
13	2018-03-12T00:00:00	5:30 PM	INJURY	HEAD ON	DAYLIGHT	DRY	CLOUDY	NEW HEMPSTEAD RD		8	0 Route 45
14	2018-03-25T00:00:00	1:05 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	NEW HEMPSTEAD RD		8	0 Route 45
15	2018-04-28T00:00:00	10:15 PM	PROPERTY DAMAGE	OVERTAKING	DARK-ROAD LIGHTED	WET	RAIN	New Hempstead Rd		4	23 Route 45
16	2018-05-06T00:00:00	12:00 AM	INJURY	REAR END	DARK-ROAD LIGHTED	DRY	CLOUDY	WASHINGTON AVE		8	0 Route 45
17	2018-05-11T00:00:00	1:28 PM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		1	18 Route 45
18	2018-05-09T00:00:00	2:21 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		1	46 Route 45
19	2018-05-25T00:00:00	2:59 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	Driveway		4	47 Route 45
20	2018-05-28T00:00:00	1:09 PM	INJURY	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		1	12 Route 45
21	2018-05-28T00:00:00	6:45 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		1	15 Route 45
22	2018-06-04T00:00:00	1:10 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		8	0 Route 45
23	2018-06-11T00:00:00	3:45 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	RENSSELAER DR		1	0 Route 45
24	2018-06-26T00:00:00	3:20 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		4	15 Route 45
25	2018-07-05T00:00:00	3:10 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		1	15 Route 45
26	2018-07-24T00:00:00	9:09 PM	INJURY	OTHER	DARK-ROAD LIGHTED	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
27	2018-07-31T00:00:00	4:35 PM	INJURY	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		8	0 Route 45
28	2018-08-02T00:00:00	6:25 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
29	2018-08-16T00:00:00	6:19 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	Greenridge Way		1	14 Route 45
30	2018-08-25T00:00:00	9:35 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		4	30 Route 45
31	2018-09-03T00:00:00	8:10 PM	INJURY	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	GREENRIDGE WAY		7	0 Route 45
32	2018-09-04T00:00:00	9:33 AM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DAYLIGHT	DRY	CLEAR	Greenridge Way		4	7 Route 45
33	2018-09-17T00:00:00	6:05 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	WET	RAIN	NEW HEMPSTEAD RD		8	0 Route 45
34	2018-09-26T00:00:00	5:30 PM	PROPERTY DAMAGE	UNKNOWN	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
35	2018-10-04T00:00:00	5:30 PM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	WET	RAIN	RENSSELAER DR		1	0 Route 45
36	2018-10-09T00:00:00	12:30 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	Driveway		4	47 Route 45
37	2018-10-18T00:00:00	3:05 PM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DAYLIGHT	DRY	CLEAR	Washington Ave		4	24 Route 45
38	2018-10-26T00:00:00	11:28 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		8	0 Route 45
39	2018-10-28T00:00:00	12:00 AM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	WET	RAIN	NEW HEMPSTEAD RD		4	15 Route 45
40	2018-11-13T00:00:00	9:55 PM	INJURY	UNKNOWN	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		8	0 Route 45
41	2018-12-05T00:00:00	9:51 AM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	RENSSELAER DR		1	0 Route 45
42	2018-12-16T00:00:00	2:30 PM	PROPERTY DAMAGE	LEFT TURN (WITH OTHER CAR)	DAYLIGHT	WET	RAIN	WASHINGTON AVE		8	0 Route 45
43	2018-01-21T00:00:00	9:09 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	CLEAR	[Route] 45		8	0 WASHINGTON AVE
44	2018-04-30T00:00:00	7:00 PM	INJURY	OTHER	DAYLIGHT	WET	RAIN	N Main St		8	0 WASHINGTON AVE
45	2018-11-25T00:00:00	1:20 AM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DARK-ROAD LIGHTED	WET	RAIN	[Route] 45		8	0 WASHINGTON AVE

TABLE 16

	Crash Date	Crash Time	Crash Severity	Collision Type	Light Conditions	Road Surface Conditions	Weather Conditions	Closest Cross Street	Direction From	Distance From	On Street
1	2019-07-18T00:00:00	10:34 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	RAIN	[Route] 45		8	0 NEW HEMPSTEAD RD
2	2019-08-29T00:00:00	2:29 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
3	2019-10-16T00:00:00	9:34 PM	INJURY	OTHER	DARK-ROAD LIGHTED	WET	RAIN	[Route] 45		8	0 NEW HEMPSTEAD RD
4	2019-10-29T00:00:00	11:25 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	WET	CLOUDY	ROUTE 45		8	0 NEW HEMPSTEAD RD
5	2019-12-10T00:00:00	10:49 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	CLOUDY	N MAIN ST		8	0 NEW HEMPSTEAD RD
6	2019-03-24T00:00:00	5:50 PM	INJURY	OVERTAKING	DAYLIGHT	DRY	CLEAR	[Route] 45		4	0 OLD SCHOOLHOUSE RD
7	2019-01-14T00:00:00	1:10 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		8	0 Route 45
8	2018-12-20T00:00:00	9:35 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
9	2019-01-24T00:00:00	12:35 AM	INJURY	RIGHT ANGLE	DARK-ROAD LIGHTED	WET	RAIN	NEW HEMPSTEAD RD		8	0 Route 45
10	2019-04-01T00:00:00	8:10 AM	PROPERTY DAMAGE	RIGHT TURN (AGAINST OTHER CAR)	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
11	2019-04-06T00:00:00	9:00 PM	INJURY	LEFT TURN (AGAINST OTHER CAR)	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		8	0 Route 45
12	2019-04-03T00:00:00	8:08 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	RENSSELAER DR		4	15 Route 45
13	2019-04-22T00:00:00	8:28 PM	PROPERTY DAMAGE	RIGHT ANGLE	DARK-ROAD LIGHTED	WET	RAIN	NEW HEMPSTEAD RD		8	0 Route 45
14	2019-05-02T00:00:00	10:13 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		8	0 Route 45
15	2019-05-15T00:00:00	8:56 AM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		7	0 Route 45
16	2019-06-16T00:00:00	1:30 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	CLOUDY	WASHINGTON AVE		8	0 Route 45
17	2019-06-16T00:00:00	10:35 AM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	RENSSELAER DR		4	8 Route 45
18	2019-07-02T00:00:00	6:14 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		1	30 Route 45
19	2019-08-02T00:00:00	11:35 AM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		8	0 Route 45
20	2019-08-23T00:00:00	2:32 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		8	0 Route 45
21	2019-08-29T00:00:00	10:00 AM	INJURY	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	RENSSELAER DR		1	0 Route 45
22	2019-09-01T00:00:00	11:02 AM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	Old Schoolhouse Rd		4	73 Route 45
23	2019-09-05T00:00:00	4:51 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		1	15 Route 45
24	2019-09-05T00:00:00	6:59 PM	INJURY	REAR END	DUSK	DRY	CLEAR	Rensselaer Dr		4	7 Route 45
25	2019-09-07T00:00:00	9:20 AM	PROPERTY DAMAGE	LEFT TURN (WITH OTHER CAR)	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		1	30 Route 45
26	2019-09-06T00:00:00	5:39 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	Washington Ave		4	14 Route 45
27	2019-06-04T00:00:00	4:32 AM	INJURY	OTHER	DARK-ROAD LIGHTED	DRY	CLOUDY	WASHINGTON AVE		1	30 Route 45
28	2019-09-19T00:00:00	12:23 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	ROVITZ PL		1	30 Route 45
29	2019-10-01T00:00:00	2:07 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	Old Schoolhouse Rd		4	13 Route 45
30	2019-10-07T00:00:00	9:08 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLOUDY	Rovitz Pl		1	92 Route 45
31	2019-10-15T00:00:00	7:07 PM	INJURY	OTHER	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		1	3 Route 45
32	2019-10-12T00:00:00	3:41 AM	INJURY	OTHER	DARK-ROAD LIGHTED	DRY	CLEAR	Greenridge Way		4	7 Route 45
33	2019-10-18T00:00:00	3:55 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		4	6 Route 45
34	2019-10-22T00:00:00	6:50 AM	PROPERTY DAMAGE	RIGHT ANGLE	DAWN	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
35	2019-10-27T00:00:00	2:09 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	RAIN	Unnamed Street		4	0 Route 45
36	2019-12-02T00:00:00	9:30 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	SLUSH	SLEET/HAIL	NEW HEMPSTEAD RD		4	2 Route 45
37	2019-12-16T00:00:00	11:50 PM	INJURY	OTHER	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		8	0 Route 45
38	2019-12-18T00:00:00	3:26 PM	INJURY	REAR END	DAYLIGHT	SNOW/ICE	SNOW	NEW HEMPSTEAD RD		8	0 Route 45
39	2019-12-23T00:00:00	3:13 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	Greenridge Way		1	14 Route 45
40	2019-09-26T00:00:00	8:00 AM	PROPERTY DAMAGE	UNKNOWN	DAYLIGHT	DRY	CLEAR	Rovitz Pl		1	48 Route 45
41	2019-11-11T00:00:00	9:33 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	ROUTE 45		8	0 WASHINGTON AVE

TABLE 17

	Crash Date	Crash Time	Crash Severity	Collision Type	Light Conditions	Road Surface Conditions	Weather Conditions	Closest Cross Street	Direction From	Distance From	On Street	
1	2020-07-27T00:00:00	9:30 AM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	ROUTE 45		8	0	NEW HEMPSTEAD RD
2	2020-09-05T00:00:00	7:50 PM	INJURY	RIGHT ANGLE	DARK-ROAD LIGHTED	DRY	CLEAR	[Route] 45		8	0	NEW HEMPSTEAD RD
3	2020-09-24T00:00:00	6:04 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	[Route] 45		8	0	NEW HEMPSTEAD RD
4	2020-10-19T00:00:00	11:57 PM	PROPERTY DAMAGE	OTHER	DARK-ROAD UNLIGHTED	DRY	CLEAR	[Route] 45		8	0	NEW HEMPSTEAD RD
5	2020-11-21T00:00:00	8:54 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	[Route] 45		8	0	NEW HEMPSTEAD RD
6	2020-01-18T00:00:00	4:34 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	SNOW/ICE	SNOW	ROVITZ PL		1	15	Route 45
7	2020-01-20T00:00:00	6:09 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	DRY	CLOUDY	WASHINGTON AVE		8	0	Route 45
8	2020-02-02T00:00:00	4:51 PM	PROPERTY DAMAGE	REAR END	DAWN	WET	CLOUDY	WASHINGTON AVE		1	15	Route 45
9	2020-02-11T00:00:00	9:43 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	CLOUDY	WASHINGTON AVE		8	0	Route 45
10	2020-03-02T00:00:00	4:04 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLOUDY	Rensselaer Dr		1	68	Route 45
11	2020-03-12T00:00:00	1:10 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		8	0	Route 45
12	2020-03-27T00:00:00	1:04 PM	INJURY	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0	Route 45
13	2019-03-11T00:00:00	2:39 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		8	0	Route 45
14	2020-04-29T00:00:00	2:20 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLOUDY	NEW HEMPSTEAD RD		8	0	Route 45
15	2020-06-02T00:00:00	7:39 AM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLOUDY	ROVITZ PL		1	9	Route 45
16	2020-06-07T00:00:00	8:04 PM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DARK-ROAD LIGHTED	DRY	CLEAR	NEW HEMPSTEAD RD		8	0	Route 45
17	2020-06-10T00:00:00	11:10 PM	INJURY	RIGHT ANGLE	DARK-ROAD LIGHTED	DRY	CLEAR	NEW HEMPSTEAD RD		8	0	Route 45
18	2020-06-15T00:00:00	3:45 AM	PROPERTY DAMAGE	OTHER	DARK-ROAD LIGHTED	DRY	CLEAR	Old Schoolhouse Rd		4	3	Route 45
19	2020-07-24T00:00:00	2:45 AM	INJURY	OTHER	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		8	0	Route 45
20	2020-08-07T00:00:00	12:04 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	ROVITZ PL		4	30	Route 45
21	2020-07-29T00:00:00	4:17 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0	Route 45
22	2020-08-23T00:00:00	8:55 PM	PROPERTY DAMAGE	RIGHT ANGLE	DARK-ROAD LIGHTED	DRY	CLEAR	GREENRIDGE WAY		1	30	Route 45
23	2020-08-26T00:00:00	11:14 PM	PROPERTY DAMAGE	SIDESWIPE	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		8	0	Route 45
24	2020-09-15T00:00:00	11:25 PM	INJURY	REAR END	DARK-ROAD LIGHTED	DRY	CLOUDY	RENSSELAER DR		1	37	Route 45
25	2020-09-25T00:00:00	8:40 AM	PROPERTY DAMAGE	SIDESWIPE	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		1	15	Route 45
26	2020-10-01T00:00:00	9:18 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0	Route 45
27	2020-10-17T00:00:00	9:54 PM	INJURY	RIGHT ANGLE	DARK-ROAD LIGHTED	DRY	CLEAR	RENSSELAER DR		1	0	Route 45
28	2020-12-22T00:00:00	3:08 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	WASHINGTON AVE		4	6	Route 45
29	2020-12-30T00:00:00	10:04 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		1	30	Route 45
30	2021-01-03T00:00:00	6:59 PM	INJURY	RIGHT TURN (WITH OTHER CAR)	DARK-ROAD UNLIGHTED	SNOW/ICE	SNOW	RENSSELAER DR		1	0	Route 45
31	2021-02-02T00:00:00	10:03 AM	PROPERTY DAMAGE	RIGHT TURN (AGAINST OTHER CAR)	DAYLIGHT	SNOW/ICE	SNOW	WASHINGTON AVE		8	0	Route 45
32	2021-02-02T00:00:00	5:26 PM	INJURY	OTHER	DARK-ROAD LIGHTED	SNOW/ICE	SNOW				0	Route 45
33	2021-01-30T00:00:00	5:16 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	NEW HEMPSTEAD RD		8	0	Route 45
34	2021-01-07T00:00:00	1:35 PM	PROPERTY DAMAGE	HEAD ON	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0	Route 45
35	2021-01-07T00:00:00	9:15 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0	Route 45
36	2021-01-24T00:00:00	1:35 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		1	15	Route 45
37	2020-11-28T00:00:00	12:50 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLOUDY	NEW HEMPSTEAD RD		1	30	Route 45
38	2020-12-13T00:00:00	10:38 PM	PROPERTY DAMAGE	OTHER	DARK-ROAD LIGHTED	DRY	CLOUDY	GREENRIDGE WAY		7	0	Route 45
39	2020-02-16T00:00:00	11:22 AM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLOUDY	[Route] 45		8	0	WASHINGTON AVE

TABLE 18

	Crash Date	Crash Time	Crash Severity	Collision Type	Light Conditions	Road Surface Conditions	Weather Conditions	Closest Cross Street	Direction From	Distance From	On Street
1	2021-03-15T00:00:00	3:00 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	[Route] 45		7	0 GREENRIDGE WAY
2	2021-12-22T00:00:00	6:39 PM	INJURY	OVERTAKING	DARK-ROAD LIGHTED	DRY	CLEAR	N MAIN ST		8	0 NEW HEMPSTEAD RD
3	2021-02-25T00:00:00	8:57 AM	INJURY	OTHER	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		7	0 Route 45
4	2021-02-24T00:00:00	4:35 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
5	2021-04-01T00:00:00	8:35 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	RAIN	RENSSELAER DR		4	5 Route 45
6	2021-04-18T00:00:00	3:00 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
7	2021-04-30T00:00:00	7:24 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	CLOUDY	Rensselaer Dr		4	7 Route 45
8	2021-05-22T00:00:00	5:14 PM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
9	2021-06-11T00:00:00	3:58 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
10	2021-06-11T00:00:00	2:15 PM	INJURY	OTHER	DAYLIGHT	DRY	CLEAR	RENSSELAER DR		1	0 Route 45
11	2021-06-30T00:00:00	4:54 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		1	5 Route 45
12	2021-06-27T00:00:00	10:08 PM	INJURY	REAR END	DARK-ROAD UNLIGHTED	DRY	CLEAR	Old Schoolhouse Rd		1	17 Route 45
13	2021-07-21T00:00:00	7:35 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	Greenridge Way		1	14 Route 45
14	2021-07-08T00:00:00	5:31 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	RAIN	NEW HEMPSTEAD RD		1	23 Route 45
15	2021-07-08T00:00:00	12:02 AM	INJURY	OTHER	DARK-ROAD LIGHTED	DRY	CLOUDY	NEW HEMPSTEAD RD		8	0 Route 45
16	2021-06-21T00:00:00	10:40 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	NEW HEMPSTEAD RD		8	0 Route 45
17	2021-08-11T00:00:00	11:56 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		4	15 Route 45
18	2021-08-26T00:00:00	2:26 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR				0 Route 45
19	2021-09-12T00:00:00	3:22 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		8	0 Route 45
20	2021-08-17T00:00:00	6:55 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY	RENSSELAER DR		1	15 Route 45
21	2021-09-24T00:00:00	12:10 PM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		4	18 Route 45
22	2021-09-01T00:00:00	10:45 PM	PROPERTY DAMAGE	RIGHT TURN (WITH OTHER CAR)	DARK-ROAD LIGHTED	WET	RAIN	GREENRIDGE WAY		7	0 Route 45
23	2021-10-04T00:00:00	5:47 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	WET	RAIN	GREENRIDGE WAY		7	0 Route 45
24	2021-10-09T00:00:00	8:47 PM	PROPERTY DAMAGE	NOT ENTERED	NOT ENTERED	NOT ENTERED	NOT ENTERED	Rovitz Pl		1	92 Route 45
25	2021-10-17T00:00:00	12:35 PM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
26	2021-10-18T00:00:00	1:45 PM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		8	0 Route 45
27	2021-11-06T00:00:00	7:31 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD UNLIGHTED	DRY	CLOUDY	Unnamed Street		4	21 Route 45
28	2021-11-18T00:00:00	8:10 PM	INJURY	RIGHT ANGLE	DARK-ROAD LIGHTED	DRY	CLEAR	GREENRIDGE WAY		5	99.0119115 Route 45
29	2021-11-23T00:00:00	2:48 PM	INJURY	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		7	0 Route 45
30	2021-12-13T00:00:00	12:50 AM	PROPERTY DAMAGE	RIGHT ANGLE	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		8	0 Route 45
31	2021-12-14T00:00:00	10:06 PM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVE		8	0 Route 45
32	2021-12-23T00:00:00	11:59 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLEAR	New Hempstead Rd		1	6 Route 45
33	2021-12-27T00:00:00	7:11 PM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DARK-ROAD LIGHTED	WET	CLOUDY	NEW HEMPSTEAD RD		8	0 Route 45
34	2021-12-30T00:00:00	6:47 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	DRY	CLOUDY	Rovitz Pl		4	99 Route 45

TABLE 19

	Crash Date	Crash Time	Crash Severity	Collision Type	Light Conditions	Road Surface Conditions	Weather Conditions	Closest Cross Street	Direction From	Distance From	On Street
1	2022-01-06T00:00:00	9:11 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	[Route] 45		8	0 NEW HEMPSTEAD RD
2	2022-03-01T00:00:00	7:00 AM	INJURY	OTHER	DAYLIGHT	DRY	CLOUDY	ROUTE 45		8	0 NEW HEMPSTEAD RD
3	2022-01-11T00:00:00	6:43 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	RENSELAE DR		4	30 Route 45
4	2022-02-20T00:00:00	5:30 PM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
5	2022-03-06T00:00:00	6:21 AM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLOUDY	ROVITZ PL		1	91 Route 45
6	2022-04-04T00:00:00	10:50 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	Greenridge Way		1	14 Route 45
7	2022-04-07T00:00:00	7:25 PM	PROPERTY DAMAGE	REAR END	DUSK	WET	RAIN	NEW HEMPSTEAD RD		8	0 Route 45
8	2022-04-24T00:00:00	7:28 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	Driveway		4	17 Route 45
9	2022-05-02T00:00:00	9:30 AM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DAYLIGHT	WET	RAIN	Rensselaer Dr		4	7 Route 45
10	2022-05-10T00:00:00	5:43 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	RENSELAE DR		4	12 Route 45
11	2022-05-11T00:00:00	2:30 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		7	0 Route 45
12	2022-05-19T00:00:00	2:39 PM	INJURY	OTHER	DAYLIGHT	DRY	CLOUDY	NEW HEMPSTEAD RD		4	46 Route 45
13	2022-05-17T00:00:00	2:50 PM	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RD		8	0 Route 45
14	2022-05-29T00:00:00	11:15 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		1	30 Route 45
15	2022-05-28T00:00:00	10:37 PM	INJURY	REAR END	DARK-ROAD UNLIGHTED	WET	CLEAR	Rensselaer Dr		4	7 Route 45
16	2022-06-01T00:00:00	4:49 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		5	23.38962645 Route 45
17	2022-06-09T00:00:00	10:05 AM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	WASHINGTON AVE		4	15 Route 45
18	2022-06-26T00:00:00	1:47 AM	INJURY	RIGHT ANGLE	DARK-ROAD LIGHTED	DRY	CLEAR	UNNAMED STREET		5	4.94207623 Route 45
19	2022-06-30T00:00:00	6:39 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	ROVITZ PLACE		1	0 Route 45
20	2022-07-31T00:00:00	1:30 PM	INJURY	OTHER	DAYLIGHT	DRY	CLEAR	WASHINGTON AVENU		1	0 Route 45
21	2022-07-29T00:00:00	1:15 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVENU		1	100.0003197 Route 45
22	2022-07-27T00:00:00	9:10 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVENU		1	50.00031974 Route 45
23	2022-06-10T00:00:00	6:09 PM	FATAL	OTHER	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RO		3	0 Route 45
24	2022-08-31T00:00:00	5:19 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		1	0 Route 45
25	2022-09-06T00:00:00	8:19 PM	PROPERTY DAMAGE	OTHER	DARK-ROAD LIGHTED	WET	RAIN	GREENRIDGE WAY		5	156.7582208 Route 45
26	2022-09-15T00:00:00	3:18 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	WASHINGTON AVENU		1	221.6716842 Route 45
27	2022-10-02T00:00:00	4:24 PM	INJURY	OTHER	DAYLIGHT	DRY	CLEAR	WASHINGTON AVENU		5	45.30658826 Route 45
28	2022-10-06T00:00:00	6:52 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	DRY	CLEAR	UNNAMED STREET		5	268.1324224 Route 45
29	2022-10-10T00:00:00	1:27 PM	INJURY	RIGHT ANGLE	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RO		3	0 Route 45
30	2022-10-13T00:00:00	12:32 PM	PROPERTY DAMAGE	RIGHT ANGLE	DAYLIGHT	WET	RAIN	NEW HEMPSTEAD RO		3	0 Route 45
31	2022-10-18T00:00:00	5:22 PM	INJURY	REAR END	DAYLIGHT	DRY	CLEAR	NEW HEMPSTEAD RO		3	0 Route 45
32	2022-11-07T00:00:00	11:07 PM	INJURY	LEFT TURN (AGAINST OTHER CAR)	DARK-ROAD LIGHTED	DRY	CLEAR	WASHINGTON AVENU		1	100.0003197 Route 45
33	2022-11-15T00:00:00	5:32 PM	PROPERTY DAMAGE	OTHER	DAYLIGHT	DRY	CLEAR	RENSELAE DR		5	23.71225474 Route 45
34	2022-11-14T00:00:00	4:57 PM	PROPERTY DAMAGE	OTHER	DUSK	DRY	CLEAR	OLD SCHOOLHOUSE R		5	75.48420208 Route 45
35	2022-11-08T00:00:00	3:12 PM	INJURY	OTHER	DAYLIGHT	DRY	CLEAR	RENSELAE DR		7	0 Route 45
36	2022-11-01T00:00:00	11:15 PM	PROPERTY DAMAGE	RIGHT ANGLE	DARK-ROAD LIGHTED	DRY	CLEAR	UNNAMED STREET		5	268.1322295 Route 45
37	2022-11-25T00:00:00	12:46 PM	INJURY	OTHER	DAYLIGHT	WET	CLEAR	UNNAMED STREET		5	1.31407027 Route 45
38	2022-12-06T00:00:00	8:49 AM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLOUDY				0 Route 45
39	2022-12-06T00:00:00	8:45 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD LIGHTED	WET	RAIN	WASHINGTON AVENU		1	0 Route 45
40	2022-12-14T00:00:00	8:35 AM	INJURY	OTHER	DAYLIGHT	DRY	CLEAR	GREENRIDGE WAY		5	23.38962645 Route 45
41	2022-12-15T00:00:00	8:34 PM	INJURY	LEFT TURN (AGAINST OTHER CAR)	DARK-ROAD LIGHTED	WET	RAIN	GREENRIDGE WAY		5	23.38962645 Route 45
42	2022-12-02T00:00:00	5:02 PM	PROPERTY DAMAGE	REAR END	DARK-ROAD UNLIGHTED	DRY	CLEAR				0 Route 45
43	2022-05-27T00:00:00	8:25 AM	PROPERTY DAMAGE	OVERTAKING	DAYLIGHT	DRY	CLOUDY	N Main St		7	3 UNNAMED STREET
44	2022-06-07T00:00:00	12:44 PM	PROPERTY DAMAGE	REAR END	DAYLIGHT	DRY	CLEAR	N MAIN ST		8	0 WASHINGTON AVE

CONCLUSIONS

1. The proposed office will generate 40 vehicle trips with 35 vehicles entering and 5 vehicles exiting in the AM peak hour. In the PM peak hour, the project will generate 41 vehicle trips with 7 vehicles entering and 34 vehicles exiting.
2. The parking study shows that the existing parking spaces would be sufficient to accommodate the additional number of cars that would be generated by the project.
3. The project driveway is projected to operate at LOS "B" in the AM peak hour and "C" in the PM peak hour.

APPENDIX A
TRAFFIC VOLUME FIGURES

APPENDIX B
CAPACITY ANALYSIS SUMMARIES

CAPACITY ANALYSIS SUMMARY
EXISTING CONDITIONS

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2023 Existing AM Pk Hr
11/19/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	333	66	134	270	119	86	312	18	157	308	51
Future Volume (vph)	44	333	66	134	270	119	86	312	18	157	308	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	115		0	100		0	100		0
Storage Lanes	1		0	1		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							1.00	1.00		1.00	1.00	
Frt		0.975			0.954			0.992				0.979
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1748	0	1703	1672	0	1583	1715	0	1752	1764	0
Flt Permitted	0.345			0.192			0.525			0.195		
Satd. Flow (perm)	601	1748	0	344	1672	0	874	1715	0	359	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			20			3				8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1028			1349			1717				604
Travel Time (s)		23.4			30.7			39.0				13.7
Confl. Peds. (#/hr)							1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	5%	11%	6%	9%	7%	14%	10%	6%	3%	5%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	49	374	74	151	303	134	97	351	20	176	346	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	448	0	151	437	0	97	371	0	176	403	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)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	88	88		88	88		88	88		88	88	
Trailing Detector (ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases	4			7			2			5		
Detector Phase	8	4		3	7		6	2		1	5	
Switch Phase												

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2023 Existing AM Pk Hr
11/19/2023



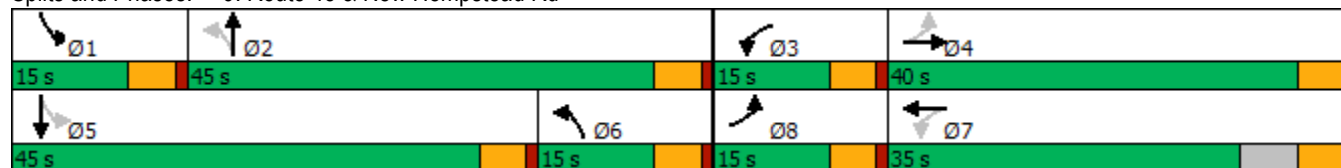
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	8.0	21.0		8.0	8.0		8.0	15.0		8.0	15.0	
Total Split (s)	15.0	40.0		15.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	13.0%	34.8%		13.0%	30.4%		13.0%	39.1%		13.0%	39.1%	
Maximum Green (s)	10.0	35.0		10.0	30.0		10.0	40.0		10.0	40.0	
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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?				Yes						Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		5.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effct Green (s)	35.7	28.3		41.0	35.6		26.1	26.1		30.5	30.5	
Actuated g/C Ratio	0.38	0.30		0.43	0.38		0.28	0.28		0.32	0.32	
v/c Ratio	0.16	0.85		0.53	0.68		0.32	0.78		0.67	0.70	
Control Delay	17.8	47.3		24.3	33.3		32.2	44.0		40.9	37.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.8	47.3		24.3	33.3		32.2	44.0		40.9	37.1	
LOS	B	D		C	C		C	D		D	D	
Approach Delay		44.4			31.0			41.5			38.3	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	16	248		53	227		46	210		86	225	
Queue Length 95th (ft)	43	#458		111	#441		89	326		#164	346	
Internal Link Dist (ft)		948			1269			1637			524	
Turn Bay Length (ft)	100			115			100			100		
Base Capacity (vph)	361	675		298	674		329	752		268	776	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.14	0.66		0.51	0.65		0.29	0.49		0.66	0.52	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 94.3
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 38.4
 Intersection LOS: D
 Intersection Capacity Utilization 71.8%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.










Queue shown is maximum after two cycles.

Splits and Phases: 9: Route 45 & New Hempstead Rd



Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2023 Existing AM Pk Hr
11/19/2023

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	129	93	467	151	64	433
Future Volume (vph)	129	93	467	151	64	433
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.99			1.00
Frt	0.943		0.967			
Flt Protected	0.972					0.994
Satd. Flow (prot)	1590	0	1692	0	0	1782
Flt Permitted	0.972					*0.770
Satd. Flow (perm)	1590	0	1692	0	0	1380
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	43		23			
Link Speed (mph)	30		45			45
Link Distance (ft)	248		1019			721
Travel Time (s)	5.6		15.4			10.9
Confl. Peds. (#/hr)		8		2	2	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	7%	8%	8%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	137	99	497	161	68	461
Shared Lane Traffic (%)						
Lane Group Flow (vph)	236	0	658	0	0	529
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		0		1	0
Detector Template					Left	
Leading Detector (ft)	86		0		20	0
Trailing Detector (ft)	-5		0		0	0
Turn Type	Perm		NA		Perm	NA
Protected Phases			2			2
Permitted Phases	3		2		2	
Detector Phase	3					
Switch Phase						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	2.0		9.0		9.0	9.0
Minimum Split (s)	24.0		15.0		15.0	15.0
Total Split (s)	45.0		55.0		55.0	55.0
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Maximum Green (s)	39.0		49.0		49.0	49.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Minimum Gap (s)	1.0		1.0		1.0	1.0
Time Before Reduce (s)	0.0		0.0		0.0	0.0
Time To Reduce (s)	0.0		0.0		0.0	0.0
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	8.4		10.0			10.0
Actuated g/C Ratio	0.27		0.33			0.33
v/c Ratio	0.51		1.16			1.18
Control Delay	10.8		110.4			121.2
Queue Delay	0.0		0.0			0.0
Total Delay	10.8		110.4			121.2
LOS	B		F			F
Approach Delay	10.8		110.4			121.2
Approach LOS	B		F			F
Queue Length 50th (ft)	23		~125			~102
Queue Length 95th (ft)	53		#374			#311
Internal Link Dist (ft)	168		939			641
Turn Bay Length (ft)						
Base Capacity (vph)	1590		567			450
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.15		1.16			1.18

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	30.6
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.18
Intersection Signal Delay:	97.9
Intersection LOS:	F
Intersection Capacity Utilization:	88.8%
ICU Level of Service:	E
Analysis Period (min):	15
* User Entered Value	

Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2023 Existing AM Pk Hr
11/19/2023

~ 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: 24: Route 45 & Washington Ave



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT			TT	TT	
Traffic Vol, veh/h	0	1	3	565	456	10
Future Vol, veh/h	0	1	3	565	456	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	9	6	0
Mvmt Flow	0	1	3	635	512	11

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1159	518	523	0	-	0
Stage 1	518	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	218	562	1054	-	-	-
Stage 1	602	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	217	562	1054	-	-	-
Mov Cap-2 Maneuver	217	-	-	-	-	-
Stage 1	600	-	-	-	-	-
Stage 2	528	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1054	-	562	-	-
HCM Lane V/C Ratio	0.003	-	0.002	-	-
HCM Control Delay (s)	8.4	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2023 Existing PM Pk Hr
11/19/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	291	64	175	362	50	77	237	19	157	306	51
Future Volume (vph)	34	291	64	175	362	50	77	237	19	157	306	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	115		0	100		0	100		0
Storage Lanes	1		0	1		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							1.00	1.00		1.00	1.00	
Frt		0.973			0.982			0.989			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1771	0	1770	1805	0	1719	1787	0	1752	1786	0
Flt Permitted	0.339			0.240			0.528			0.230		
Satd. Flow (perm)	591	1771	0	447	1805	0	955	1787	0	424	1786	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6			4			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1028			1349			1717			604	
Travel Time (s)		23.4			30.7			39.0			13.7	
Confl. Peds. (#/hr)							1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	4%	6%	2%	3%	6%	5%	5%	5%	3%	3%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	38	323	71	194	402	56	86	263	21	174	340	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	394	0	194	458	0	86	284	0	174	397	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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	88	88		88	88		88	88		88	88	
Trailing Detector (ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases	4			7			2			5		
Detector Phase	8	4		3	7		6	2		1	5	
Switch Phase												

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2023 Existing PM Pk Hr
11/19/2023

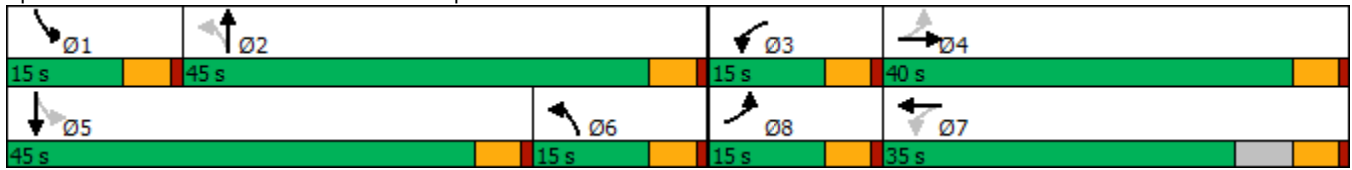


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	8.0	21.0		8.0	8.0		8.0	15.0		8.0	15.0	
Total Split (s)	15.0	40.0		15.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	13.0%	34.8%		13.0%	30.4%		13.0%	39.1%		13.0%	39.1%	
Maximum Green (s)	10.0	35.0		10.0	30.0		10.0	40.0		10.0	40.0	
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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?				Yes						Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		5.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effct Green (s)	30.8	23.8		37.2	31.8		20.3	20.3		27.1	27.1	
Actuated g/C Ratio	0.37	0.28		0.44	0.38		0.24	0.24		0.32	0.32	
v/c Ratio	0.12	0.78		0.56	0.67		0.30	0.66		0.60	0.68	
Control Delay	15.6	39.5		22.2	30.6		31.4	36.9		33.8	33.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.6	39.5		22.2	30.6		31.4	36.9		33.8	33.3	
LOS	B	D		C	C		C	D		C	C	
Approach Delay		37.4			28.1			35.7			33.5	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	11	184		59	212		37	135		72	187	
Queue Length 95th (ft)	33	341		128	403		83	244		143	330	
Internal Link Dist (ft)		948			1269			1637			524	
Turn Bay Length (ft)	100			115			100			100		
Base Capacity (vph)	371	772		360	789		374	886		300	888	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.10	0.51		0.54	0.58		0.23	0.32		0.58	0.45	

Intersection Summary










Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	84.2
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	33.0
Intersection LOS:	C
Intersection Capacity Utilization:	69.0%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 9: Route 45 & New Hempstead Rd



Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2023 Existing PM Pk Hr
11/19/2023

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	236	59	397	298	91	394
Future Volume (vph)	236	59	397	298	91	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			1.00
Frt	0.973		0.942			
Flt Protected	0.962					0.991
Satd. Flow (prot)	1676	0	1682	0	0	1775
Flt Permitted	0.962					*0.770
Satd. Flow (perm)	1676	0	1682	0	0	1379
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	15		53			
Link Speed (mph)	30		45			45
Link Distance (ft)	248		1019			721
Travel Time (s)	5.6		15.4			10.9
Confl. Peds. (#/hr)		8		2	2	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	2%	5%	6%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	238	60	401	301	92	398
Shared Lane Traffic (%)						
Lane Group Flow (vph)	298	0	702	0	0	490
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		0		1	0
Detector Template					Left	
Leading Detector (ft)	86		0		20	0
Trailing Detector (ft)	-5		0		0	0
Turn Type	Perm		NA		Perm	NA
Protected Phases			2			2
Permitted Phases	3		2		2	
Detector Phase	3					
Switch Phase						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	2.0		9.0		9.0	9.0
Minimum Split (s)	24.0		15.0		15.0	15.0
Total Split (s)	45.0		55.0		55.0	55.0
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Maximum Green (s)	39.0		49.0		49.0	49.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Minimum Gap (s)	1.0		1.0		1.0	1.0
Time Before Reduce (s)	0.0		0.0		0.0	0.0
Time To Reduce (s)	0.0		0.0		0.0	0.0
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	9.5		9.1			9.1
Actuated g/C Ratio	0.31		0.30			0.30
v/c Ratio	0.57		1.31			1.20
Control Delay	12.7		170.9			131.2
Queue Delay	0.0		0.0			0.0
Total Delay	12.7		170.9			131.2
LOS	B		F			F
Approach Delay	12.7		170.9			131.2
Approach LOS	B		F			F
Queue Length 50th (ft)	36		~147			~99
Queue Length 95th (ft)	73		#389			#289
Internal Link Dist (ft)	168		939			641
Turn Bay Length (ft)						
Base Capacity (vph)	1676		536			409
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.18		1.31			1.20

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	30.8
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.31
Intersection Signal Delay:	126.2
Intersection LOS:	F
Intersection Capacity Utilization:	96.8%
ICU Level of Service:	F
Analysis Period (min):	15
* User Entered Value	

~ 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: 24: Route 45 & Washington Ave



Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	17	9	8	472	463	1
Future Vol, veh/h	17	9	8	472	463	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	5	5	0
Mvmt Flow	19	10	9	524	514	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1057	515	515	0	-	0
Stage 1	515	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	251	564	1061	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	248	564	1061	-	-	-
Mov Cap-2 Maneuver	248	-	-	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	587	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.9	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1061	-	308	-	-
HCM Lane V/C Ratio	0.008	-	0.094	-	-
HCM Control Delay (s)	8.4	0	17.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

CAPACITY ANALYSIS SUMMARY
2026 NO-BUILD CONDITIONS

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2026 No-Build AM Pk Hr
11/19/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	343	68	138	278	123	89	321	19	162	317	53
Future Volume (vph)	45	343	68	138	278	123	89	321	19	162	317	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	115		0	100		0	100		0
Storage Lanes	1		0	1		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							1.00	1.00		1.00	1.00	
Frt		0.975			0.954			0.992				0.978
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1748	0	1703	1672	0	1583	1715	0	1752	1762	0
Flt Permitted	0.288			0.179			0.519			0.188		
Satd. Flow (perm)	502	1748	0	321	1672	0	864	1715	0	347	1762	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			20			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1028			1349			1717			604	
Travel Time (s)		23.4			30.7			39.0			13.7	
Confl. Peds. (#/hr)							1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	5%	11%	6%	9%	7%	14%	10%	6%	3%	5%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	51	385	76	155	312	138	100	361	21	182	356	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	461	0	155	450	0	100	382	0	182	416	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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	88	88		88	88		88	88		88	88	
Trailing Detector (ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases	4			7			2			5		
Detector Phase	8	4		3	7		6	2		1	5	
Switch Phase												

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2026 No-Build AM Pk Hr
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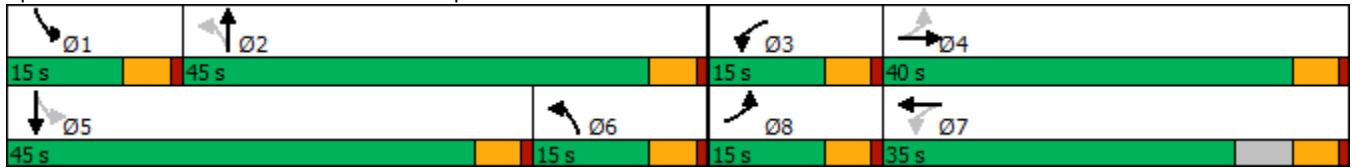
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	8.0	21.0		8.0	8.0		8.0	15.0		8.0	15.0	
Total Split (s)	15.0	40.0		15.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	13.0%	34.8%		13.0%	30.4%		13.0%	39.1%		13.0%	39.1%	
Maximum Green (s)	10.0	35.0		10.0	30.0		10.0	40.0		10.0	40.0	
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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?				Yes						Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		5.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effct Green (s)	36.6	29.2		41.3	33.9		27.0	27.0		31.4	31.4	
Actuated g/C Ratio	0.38	0.30		0.43	0.35		0.28	0.28		0.33	0.33	
v/c Ratio	0.18	0.86		0.57	0.75		0.33	0.79		0.70	0.72	
Control Delay	18.4	49.0		26.4	37.9		32.5	44.9		43.3	38.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.4	49.0		26.4	37.9		32.5	44.9		43.3	38.2	
LOS	B	D		C	D		C	D		D	D	
Approach Delay		46.0			35.0			42.4			39.7	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	17	262		55	240		49	223		92	241	
Queue Length 95th (ft)	45	#487		115	#470		92	336		#160	365	
Internal Link Dist (ft)		948			1269			1637			524	
Turn Bay Length (ft)	100			115			100			100		
Base Capacity (vph)	329	659		286	644		327	734		263	757	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.16	0.70		0.54	0.70		0.31	0.52		0.69	0.55	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 96.2
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 40.5
 Intersection LOS: D
 Intersection Capacity Utilization 73.5%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.










Queue shown is maximum after two cycles.

Splits and Phases: 9: Route 45 & New Hempstead Rd



Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2026 No-Build AM Pk Hr
11/19/2023

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	159	122	499	210	84	445
Future Volume (vph)	159	122	499	210	84	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.99			1.00
Frt	0.941		0.960			
Flt Protected	0.973					0.992
Satd. Flow (prot)	1588	0	1678	0	0	1778
Flt Permitted	0.973					*0.770
Satd. Flow (perm)	1588	0	1678	0	0	1380
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45		30			
Link Speed (mph)	30		45			45
Link Distance (ft)	248		1019			721
Travel Time (s)	5.6		15.4			10.9
Confl. Peds. (#/hr)		8		2	2	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	7%	8%	8%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	169	130	531	223	89	473
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	0	754	0	0	562
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		0		1	0
Detector Template					Left	
Leading Detector (ft)	86		0		20	0
Trailing Detector (ft)	-5		0		0	0
Turn Type	Perm		NA		Perm	NA
Protected Phases			2			2
Permitted Phases	3		2		2	
Detector Phase	3					
Switch Phase						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	2.0		9.0		9.0	9.0
Minimum Split (s)	24.0		15.0		15.0	15.0
Total Split (s)	45.0		55.0		55.0	55.0
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Maximum Green (s)	39.0		49.0		49.0	49.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Minimum Gap (s)	1.0		1.0		1.0	1.0
Time Before Reduce (s)	0.0		0.0		0.0	0.0
Time To Reduce (s)	0.0		0.0		0.0	0.0
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	9.2		9.2			9.2
Actuated g/C Ratio	0.30		0.30			0.30
v/c Ratio	0.59		1.44			1.36
Control Delay	12.3		229.2			198.1
Queue Delay	0.0		0.0			0.0
Total Delay	12.3		229.2			198.1
LOS	B		F			F
Approach Delay	12.3		229.2			198.1
Approach LOS	B		F			F
Queue Length 50th (ft)	32		~172			~123
Queue Length 95th (ft)	69		#430			#331
Internal Link Dist (ft)	168		939			641
Turn Bay Length (ft)						
Base Capacity (vph)	1588		522			412
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.19		1.44			1.36

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	30.6
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.44
Intersection Signal Delay:	178.2
Intersection LOS:	F
Intersection Capacity Utilization:	98.8%
ICU Level of Service:	F
Analysis Period (min):	15
* User Entered Value	

- ~ 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: 24: Route 45 & Washington Ave



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	3	582	470	10
Future Vol, veh/h	0	1	3	582	470	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	9	6	0
Mvmt Flow	0	1	3	654	528	11

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1194	534	539	0	-	0
Stage 1	534	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	208	550	1040	-	-	-
Stage 1	592	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	207	550	1040	-	-	-
Mov Cap-2 Maneuver	207	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	518	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1040	-	550	-	-
HCM Lane V/C Ratio	0.003	-	0.002	-	-
HCM Control Delay (s)	8.5	0	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2026 No-Build PM Pk Hr
11/19/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	300	66	180	373	52	79	244	20	162	315	53
Future Volume (vph)	35	300	66	180	373	52	79	244	20	162	315	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	115		0	100		0	100		0
Storage Lanes	1		0	1		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							1.00	1.00		1.00	1.00	
Frt		0.973			0.982			0.989			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1771	0	1770	1805	0	1719	1787	0	1752	1786	0
Flt Permitted	0.322			0.230			0.522			0.219		
Satd. Flow (perm)	561	1771	0	428	1805	0	944	1787	0	404	1786	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6			4			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1028			1349			1717			604	
Travel Time (s)		23.4			30.7			39.0			13.7	
Confl. Peds. (#/hr)							1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	4%	6%	2%	3%	6%	5%	5%	5%	3%	3%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	39	333	73	200	414	58	88	271	22	180	350	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	406	0	200	472	0	88	293	0	180	409	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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	88	88		88	88		88	88		88	88	
Trailing Detector (ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases	4			7			2			5		
Detector Phase	8	4		3	7		6	2		1	5	
Switch Phase												

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2026 No-Build PM Pk Hr
11/19/2023



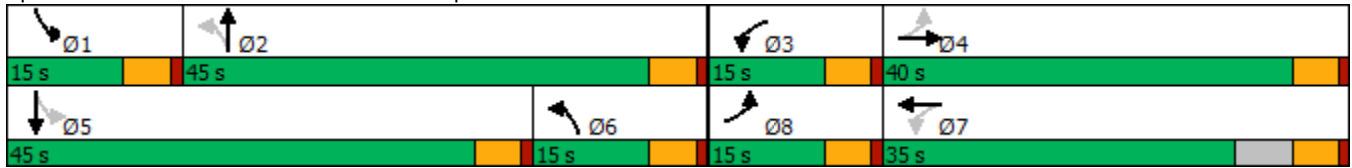
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	8.0	21.0		8.0	8.0		8.0	15.0		8.0	15.0	
Total Split (s)	15.0	40.0		15.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	13.0%	34.8%		13.0%	30.4%		13.0%	39.1%		13.0%	39.1%	
Maximum Green (s)	10.0	35.0		10.0	30.0		10.0	40.0		10.0	40.0	
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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?				Yes						Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		5.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effct Green (s)	31.8	24.7		38.2	32.9		21.2	21.2		28.1	28.1	
Actuated g/C Ratio	0.37	0.29		0.44	0.38		0.25	0.25		0.33	0.33	
v/c Ratio	0.13	0.79		0.59	0.68		0.31	0.66		0.63	0.70	
Control Delay	16.1	40.6		23.8	31.6		31.7	37.4		35.8	34.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.1	40.6		23.8	31.6		31.7	37.4		35.8	34.0	
LOS	B	D		C	C		C	D		D	C	
Approach Delay		38.5			29.3			36.1			34.6	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	11	195		62	226		39	144		77	200	
Queue Length 95th (ft)	35	358		134	#435		83	251		#155	342	
Internal Link Dist (ft)		948			1269			1637			524	
Turn Bay Length (ft)	100			115			100			100		
Base Capacity (vph)	360	753		351	770		374	864		294	866	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.54		0.57	0.61		0.24	0.34		0.61	0.47	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 86.2
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 34.0
 Intersection LOS: C
 Intersection Capacity Utilization 70.6%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 9: Route 45 & New Hempstead Rd



Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	18	9	8	486	477	1
Future Vol, veh/h	18	9	8	486	477	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	5	5	0
Mvmt Flow	20	10	9	540	530	1










Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1089	531	531	0	-	0
Stage 1	531	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	241	552	1047	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	238	552	1047	-	-	-
Mov Cap-2 Maneuver	238	-	-	-	-	-
Stage 1	587	-	-	-	-	-
Stage 2	577	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1047	-	294	-	-
HCM Lane V/C Ratio	0.008	-	0.102	-	-
HCM Control Delay (s)	8.5	0	18.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2026 No-Build PM Pk Hr
11/19/2023

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	243	96	499	210	94	406
Future Volume (vph)	243	96	499	210	94	406
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			1.00
Frt	0.962		0.960			
Flt Protected	0.965					0.991
Satd. Flow (prot)	1662	0	1721	0	0	1775
Flt Permitted	0.965					*0.770
Satd. Flow (perm)	1662	0	1721	0	0	1379
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	23		30			
Link Speed (mph)	30		45			45
Link Distance (ft)	248		1019			721
Travel Time (s)	5.6		15.4			10.9
Confl. Peds. (#/hr)		8		2	2	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	2%	5%	6%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	245	97	504	212	95	410
Shared Lane Traffic (%)						
Lane Group Flow (vph)	342	0	716	0	0	505
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		0		1	0
Detector Template					Left	
Leading Detector (ft)	86		0		20	0
Trailing Detector (ft)	-5		0		0	0
Turn Type	Perm		NA		Perm	NA
Protected Phases			2			2
Permitted Phases	3		2		2	
Detector Phase	3					
Switch Phase						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	2.0		9.0		9.0	9.0
Minimum Split (s)	24.0		15.0		15.0	15.0
Total Split (s)	45.0		55.0		55.0	55.0
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Maximum Green (s)	39.0		49.0		49.0	49.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Minimum Gap (s)	1.0		1.0		1.0	1.0
Time Before Reduce (s)	0.0		0.0		0.0	0.0
Time To Reduce (s)	0.0		0.0		0.0	0.0
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	10.1		9.1			9.1
Actuated g/C Ratio	0.32		0.29			0.29
v/c Ratio	0.62		1.37			1.26
Control Delay	13.4		200.0			157.7
Queue Delay	0.0		0.0			0.0
Total Delay	13.4		200.0			157.7
LOS	B		F			F
Approach Delay	13.4		200.0			157.7
Approach LOS	B		F			F
Queue Length 50th (ft)	41		~164			~109
Queue Length 95th (ft)	85		#405			#297
Internal Link Dist (ft)	168		939			641
Turn Bay Length (ft)						
Base Capacity (vph)	1662		521			400
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.21		1.37			1.26

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	31.4
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.37
Intersection Signal Delay:	145.5
Intersection LOS:	F
Intersection Capacity Utilization:	100.2%
ICU Level of Service:	G
Analysis Period (min):	15
* User Entered Value	

- ~ 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: 24: Route 45 & Washington Ave



**CAPACITY ANALYSIS SUMMARY
2026 BUILD CONDITIONS**

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2026 Build AM Pk Hr
11/19/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	343	72	145	278	123	89	322	19	162	333	53
Future Volume (vph)	45	343	72	145	278	123	89	322	19	162	333	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	115		0	100		0	100		0
Storage Lanes	1		0	1		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							1.00	1.00		1.00	1.00	
Frt		0.974			0.954			0.992				0.979
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1745	0	1703	1672	0	1583	1715	0	1752	1764	0
Flt Permitted	0.294			0.176			0.483			0.181		
Satd. Flow (perm)	512	1745	0	315	1672	0	804	1715	0	334	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			20			3				8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1028			1349			1717				604
Travel Time (s)		23.4			30.7			39.0				13.7
Confl. Peds. (#/hr)							1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	5%	11%	6%	9%	7%	14%	10%	6%	3%	5%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	51	385	81	163	312	138	100	362	21	182	374	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	466	0	163	450	0	100	383	0	182	434	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)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	88	88		88	88		88	88		88	88	
Trailing Detector (ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases	4			7			2			5		
Detector Phase	8	4		3	7		6	2		1	5	
Switch Phase												

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2026 Build AM Pk Hr
11/19/2023



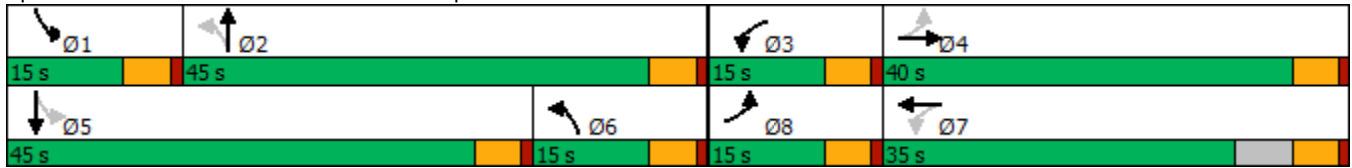
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	8.0	21.0		8.0	8.0		8.0	15.0		8.0	15.0	
Total Split (s)	15.0	40.0		15.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	13.0%	34.8%		13.0%	30.4%		13.0%	39.1%		13.0%	39.1%	
Maximum Green (s)	10.0	35.0		10.0	30.0		10.0	40.0		10.0	40.0	
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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?				Yes						Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		5.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effct Green (s)	37.2	29.7		42.2	34.6		27.2	27.2		32.1	32.1	
Actuated g/C Ratio	0.38	0.31		0.44	0.36		0.28	0.28		0.33	0.33	
v/c Ratio	0.18	0.86		0.60	0.74		0.35	0.79		0.71	0.74	
Control Delay	18.4	49.3		27.8	37.5		33.5	45.5		43.6	38.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.4	49.3		27.8	37.5		33.5	45.5		43.6	38.9	
LOS	B	D		C	D		C	D		D	D	
Approach Delay		46.3			34.9			43.0			40.3	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	17	267		59	240		50	227		92	255	
Queue Length 95th (ft)	45	#495		#125	#470		92	337		#166	384	
Internal Link Dist (ft)		948			1269			1637			524	
Turn Bay Length (ft)	100			115			100			100		
Base Capacity (vph)	331	651		283	639		321	726		260	750	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.72		0.58	0.70		0.31	0.53		0.70	0.58	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 97
 Natural Cycle: 65
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 40.8
 Intersection LOS: D
 Intersection Capacity Utilization 74.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 9: Route 45 & New Hempstead Rd



Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	1	5	11	582	470	37
Future Vol, veh/h	1	5	11	582	470	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	9	6	0
Mvmt Flow	1	6	12	654	528	42










Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1227	549	570	0	-	0
Stage 1	549	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	199	539	1013	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	195	539	1013	-	-	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1013	-	417	-	-
HCM Lane V/C Ratio	0.012	-	0.016	-	-
HCM Control Delay (s)	8.6	0	13.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2026 Build AM Pk Hr
11/19/2023

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	159	124	505	210	85	448
Future Volume (vph)	159	124	505	210	85	448
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.99			1.00
Frt	0.941		0.960			
Flt Protected	0.973					0.992
Satd. Flow (prot)	1588	0	1678	0	0	1778
Flt Permitted	0.973					*0.770
Satd. Flow (perm)	1588	0	1678	0	0	1380
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	46		29			
Link Speed (mph)	30		45			45
Link Distance (ft)	248		1019			721
Travel Time (s)	5.6		15.4			10.9
Confl. Peds. (#/hr)		8		2	2	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	7%	8%	8%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	169	132	537	223	90	477
Shared Lane Traffic (%)						
Lane Group Flow (vph)	301	0	760	0	0	567
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		0		1	0
Detector Template					Left	
Leading Detector (ft)	86		0		20	0
Trailing Detector (ft)	-5		0		0	0
Turn Type	Perm		NA		Perm	NA
Protected Phases			2			2
Permitted Phases	3		2		2	
Detector Phase	3					
Switch Phase						

~ 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: 24: Route 45 & Washington Ave



Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	1	5	11	582	470	37
Future Vol, veh/h	1	5	11	582	470	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	9	6	0
Mvmt Flow	1	6	12	654	528	42






















Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1227	549	570	0	-	0
Stage 1	549	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	199	539	1013	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	195	539	1013	-	-	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1013	-	417	-	-
HCM Lane V/C Ratio	0.012	-	0.016	-	-
HCM Control Delay (s)	8.6	0	13.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2026 Build PM Pk Hr
11/19/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	300	66	180	373	52	80	248	20	162	316	53
Future Volume (vph)	35	300	66	180	373	52	80	248	20	162	316	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	115		0	100		0	100		0
Storage Lanes	1		0	1		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							1.00	1.00		1.00	1.00	
Frt		0.973			0.982			0.989			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1771	0	1770	1805	0	1719	1787	0	1752	1786	0
Flt Permitted	0.321			0.230			0.522			0.217		
Satd. Flow (perm)	560	1771	0	428	1805	0	944	1787	0	400	1786	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6			4			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1028			1349			1717			604	
Travel Time (s)		23.4			30.7			39.0			13.7	
Confl. Peds. (#/hr)							1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	4%	6%	2%	3%	6%	5%	5%	5%	3%	3%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	39	333	73	200	414	58	89	276	22	180	351	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	406	0	200	472	0	89	298	0	180	410	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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	88	88		88	88		88	88		88	88	
Trailing Detector (ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases	4			7			2			5		
Detector Phase	8	4		3	7		6	2		1	5	
Switch Phase												

Lanes, Volumes, Timings
9: Route 45 & New Hempstead Rd

2026 Build PM Pk Hr
11/19/2023



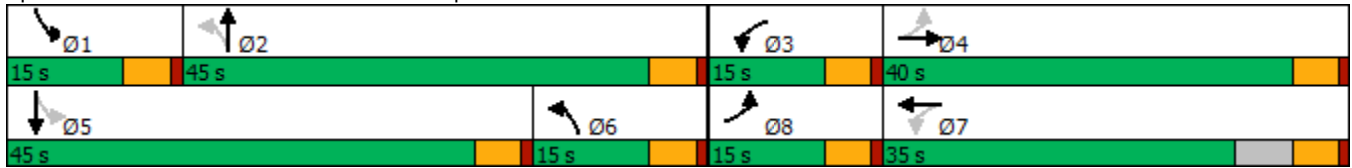
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	8.0	21.0		8.0	8.0		8.0	15.0		8.0	15.0	
Total Split (s)	15.0	40.0		15.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	13.0%	34.8%		13.0%	30.4%		13.0%	39.1%		13.0%	39.1%	
Maximum Green (s)	10.0	35.0		10.0	30.0		10.0	40.0		10.0	40.0	
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		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?				Yes						Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		5.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effct Green (s)	31.8	24.7		38.2	32.9		21.3	21.3		28.2	28.2	
Actuated g/C Ratio	0.37	0.29		0.44	0.38		0.25	0.25		0.33	0.33	
v/c Ratio	0.13	0.79		0.59	0.68		0.31	0.67		0.64	0.70	
Control Delay	16.1	40.7		23.9	31.6		31.8	37.7		35.9	34.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.1	40.7		23.9	31.6		31.8	37.7		35.9	34.0	
LOS	B	D		C	C		C	D		D	C	
Approach Delay		38.5			29.3			36.4			34.6	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	11	195		62	226		39	147		77	201	
Queue Length 95th (ft)	35	359		135	#436		85	256		#154	343	
Internal Link Dist (ft)		948			1269			1637			524	
Turn Bay Length (ft)	100			115			100			100		
Base Capacity (vph)	360	752		351	769		374	863		293	864	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.54		0.57	0.61		0.24	0.35		0.61	0.47	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 86.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 34.1
 Intersection LOS: C
 Intersection Capacity Utilization 70.7%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.










Queue shown is maximum after two cycles.

Splits and Phases: 9: Route 45 & New Hempstead Rd



Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2026 Build PM Pk Hr
11/19/2023

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	243	97	414	307	99	430
Future Volume (vph)	243	97	414	307	99	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			1.00
Frt	0.961		0.943			
Flt Protected	0.966					0.991
Satd. Flow (prot)	1662	0	1684	0	0	1775
Flt Permitted	0.966					*0.770
Satd. Flow (perm)	1662	0	1684	0	0	1379
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	24		52			
Link Speed (mph)	30		45			45
Link Distance (ft)	248		1019			721
Travel Time (s)	5.6		15.4			10.9
Confl. Peds. (#/hr)		8		2	2	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	2%	5%	6%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	245	98	418	310	100	434
Shared Lane Traffic (%)						
Lane Group Flow (vph)	343	0	728	0	0	534
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		0		1	0
Detector Template					Left	
Leading Detector (ft)	86		0		20	0
Trailing Detector (ft)	-5		0		0	0
Turn Type	Perm		NA		Perm	NA
Protected Phases			2			2
Permitted Phases	3		2		2	
Detector Phase	3					
Switch Phase						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	2.0		9.0		9.0	9.0
Minimum Split (s)	24.0		15.0		15.0	15.0
Total Split (s)	45.0		55.0		55.0	55.0
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Maximum Green (s)	39.0		49.0		49.0	49.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Minimum Gap (s)	1.0		1.0		1.0	1.0
Time Before Reduce (s)	0.0		0.0		0.0	0.0
Time To Reduce (s)	0.0		0.0		0.0	0.0
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	10.1		9.1			9.1
Actuated g/C Ratio	0.32		0.29			0.29
v/c Ratio	0.62		1.38			1.33
Control Delay	13.4		203.8			187.5
Queue Delay	0.0		0.0			0.0
Total Delay	13.4		203.8			187.5
LOS	B		F			F
Approach Delay	13.4		203.8			187.5
Approach LOS	B		F			F
Queue Length 50th (ft)	41		~165			~120
Queue Length 95th (ft)	85		#405			#315
Internal Link Dist (ft)	168		939			641
Turn Bay Length (ft)						
Base Capacity (vph)	1662		526			400
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.21		1.38			1.33

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	31.4
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.38
Intersection Signal Delay:	157.7
Intersection LOS:	F
Intersection Capacity Utilization:	103.4%
ICU Level of Service:	G
Analysis Period (min):	15
* User Entered Value	

- ~ 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: 24: Route 45 & Washington Ave



Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	23	38	14	486	477	2
Future Vol, veh/h	23	38	14	486	477	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	5	5	0
Mvmt Flow	26	42	16	540	530	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1103	531	532	0	-	0
Stage 1	531	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	236	552	1046	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	231	552	1046	-	-	-
Mov Cap-2 Maneuver	231	-	-	-	-	-
Stage 1	581	-	-	-	-	-
Stage 2	569	-	-	-	-	-













Approach	EB	NB	SB
HCM Control Delay, s	17.2	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1046	-	362	-	-
HCM Lane V/C Ratio	0.015	-	0.187	-	-
HCM Control Delay (s)	8.5	0	17.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

**CAPACITY ANALYSIS SUMMARY
2026 BUILD CONDITIONS WITH MITIGATION**

Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2026 Build AM Pk Hr with Mitigation
11/20/2023

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	159	124	505	210	85	448
Future Volume (vph)	159	124	505	210	85	448
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.96		0.97	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1671	1509	1759	1495	1703	1792
Flt Permitted	0.950				0.224	*0.770
Satd. Flow (perm)	1671	1446	1759	1457	401	1380
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		132		223		
Link Speed (mph)	30		45			45
Link Distance (ft)	248		1019			721
Travel Time (s)	5.6		15.4			10.9
Confl. Peds. (#/hr)		8		2	2	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	7%	8%	8%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	169	132	537	223	90	477
Shared Lane Traffic (%)						
Lane Group Flow (vph)	169	132	537	223	90	477
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						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	1	0	1	1	0
Detector Template		Right		Right	Left	
Leading Detector (ft)	86	20	0	20	20	0
Trailing Detector (ft)	-5	0	0	0	0	0
Turn Type	D.Pm	Perm	NA	custom	pm+pt	NA
Protected Phases			6	3	5	2
Permitted Phases	3	3	6	6	2	
Detector Phase	3	3	6	3	5	2
Switch Phase						

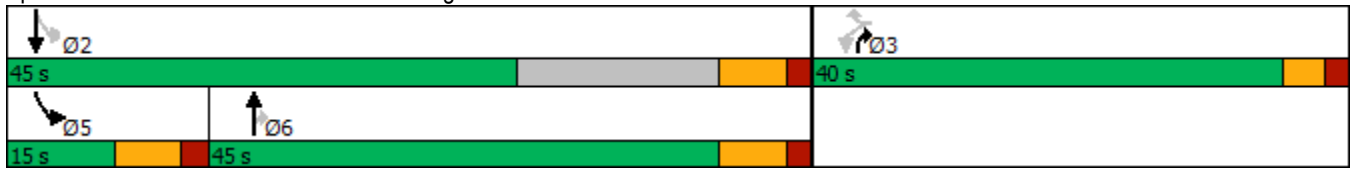


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	23.0	23.0	17.0	23.0	12.0	17.0
Total Split (s)	40.0	40.0	45.0	40.0	15.0	45.0
Total Split (%)	40.0%	40.0%	45.0%	40.0%	15.0%	45.0%
Maximum Green (s)	35.0	35.0	38.0	35.0	8.0	38.0
Yellow Time (s)	3.0	3.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	7.0	5.0	7.0	7.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0	1.0
Minimum Gap (s)	1.0	1.0	1.0	1.0	3.0	1.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0		7.0		
Flash Dont Walk (s)	11.0	11.0		11.0		
Pedestrian Calls (#/hr)	5	5		5		
Act Effct Green (s)	10.8	10.8	22.2	35.4	33.0	33.0
Actuated g/C Ratio	0.19	0.19	0.39	0.61	0.57	0.57
v/c Ratio	0.54	0.35	0.79	0.23	0.22	0.47
Control Delay	31.6	8.3	26.5	1.1	6.5	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	8.3	26.5	1.1	6.5	8.3
LOS	C	A	C	A	A	A
Approach Delay	21.4		19.0			8.0
Approach LOS	C		B			A
Queue Length 50th (ft)	57	0	170	0	11	75
Queue Length 95th (ft)	134	43	325	13	33	168
Internal Link Dist (ft)	168		939			641
Turn Bay Length (ft)						
Base Capacity (vph)	1070	973	1192	1394	437	1550
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.14	0.45	0.16	0.21	0.31

Intersection Summary













Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	57.6
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	15.6
Intersection LOS:	B
Intersection Capacity Utilization:	57.4%
ICU Level of Service:	B
Analysis Period (min):	15
* User Entered Value	

Splits and Phases: 24: Route 45 & Washington Ave



Lanes, Volumes, Timings
24: Route 45 & Washington Ave

2026 Build PM Pk Hr with Mitigation
11/20/2023

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	243	97	414	307	99	430
Future Volume (vph)	243	97	414	307	99	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.96		0.98	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1703	1583	1810	1524	1770	1776
Flt Permitted	0.950				0.311	*0.770
Satd. Flow (perm)	1703	1517	1810	1490	579	1367
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		98		310		
Link Speed (mph)	30		45			45
Link Distance (ft)	248		1019			721
Travel Time (s)	5.6		15.4			10.9
Confl. Peds. (#/hr)		8		2	2	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	2%	5%	6%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	245	98	418	310	100	434
Shared Lane Traffic (%)						
Lane Group Flow (vph)	245	98	418	310	100	434
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						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	1	0	1	1	0
Detector Template		Right		Right	Left	
Leading Detector (ft)	86	20	0	20	20	0
Trailing Detector (ft)	-5	0	0	0	0	0
Turn Type	Perm	pm+ov	NA	custom	pm+pt	NA
Protected Phases		5	6		5	2
Permitted Phases	3	3	6	2	2	
Detector Phase	3	5	6	2	5	2
Switch Phase						

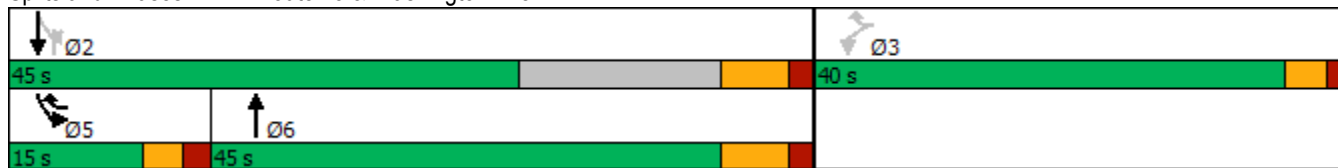


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	24.0	10.0	17.0	17.0	10.0	17.0
Total Split (s)	40.0	15.0	45.0	45.0	15.0	45.0
Total Split (%)	40.0%	15.0%	45.0%	45.0%	15.0%	45.0%
Maximum Green (s)	35.0	10.0	38.0	38.0	10.0	38.0
Yellow Time (s)	3.0	3.0	5.0	5.0	3.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	7.0	7.0	5.0	7.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	1.0	3.0	1.0	1.0	3.0	1.0
Minimum Gap (s)	1.0	3.0	1.0	1.0	3.0	1.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	5					
Act Effct Green (s)	12.6	21.1	17.2	27.3	29.5	27.3
Actuated g/C Ratio	0.24	0.40	0.32	0.51	0.55	0.51
v/c Ratio	0.61	0.15	0.71	0.34	0.20	0.48
Control Delay	27.6	3.3	25.3	2.2	6.7	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.6	3.3	25.3	2.2	6.7	10.1
LOS	C	A	C	A	A	B
Approach Delay	20.7		15.4			9.5
Approach LOS	C		B			A
Queue Length 50th (ft)	71	0	118	0	12	72
Queue Length 95th (ft)	165	23	251	31	37	170
Internal Link Dist (ft)	168		939			641
Turn Bay Length (ft)						
Base Capacity (vph)	1170	743	1319	1384	570	1617
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.13	0.32	0.22	0.18	0.27

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	53.2
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	14.6
Intersection Capacity Utilization:	55.3%
Analysis Period (min):	15
* User Entered Value	

Splits and Phases: 24: Route 45 & Washington Ave



APPENDIX C
TRAFFIC COUNTS

Route 45 @ 775 N. Main Street facility NB

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
	10/30/2023	10/31/2023	11/1/2023	11/2/2023	11/3/2023	11/4/2023	11/5/2023	11/6/2023	11/7/2023
12:00 AM		40	39	39	39	35	50	60	69
12:15 AM		34	32	29	35	25	30	59	60
12:30 AM		12	25	14	17	22	56	42	47
12:45 AM		20	25	14	28	18	31	31	56
1:00 AM		14	16	12	18	19	33	50	36
1:15 AM		5	16	8	19	22	24	18	33
1:30 AM		7	20	9	9	15	16	14	17
1:45 AM		5	5	9	10	14	24	19	15
2:00 AM		6	13	6	9	12	30	7	9
2:15 AM		0	8	6	10	13	16	16	6
2:30 AM		5	10	6	4	9	9	6	4
2:45 AM		15	3	3	7	8	11	8	4
3:00 AM		10	3	8	10	11	12	9	5
3:15 AM		5	5	13	12	10	13	26	3
3:30 AM		6	7	5	18	11	12	9	6
3:45 AM		3	12	6	13	7	18	8	2
4:00 AM		7	6	6	12	14	9	4	2
4:15 AM		9	21	12	12	22	7	6	7
4:30 AM		14	12	15	15	6	5	8	3
4:45 AM		13	9	9	20	7	6	8	4
5:00 AM		13	11	19	9	11	8	13	5
5:15 AM		20	15	19	18	6	10	13	14
5:30 AM		27	27	21	20	10	6	20	10
5:45 AM		42	34	38	35	15	10	16	14
6:00 AM		54	59	52	50	19	6	13	15
6:15 AM		70	54	48	60	29	11	11	21
6:30 AM		93	89	95	67	36	13	33	29
6:45 AM		118	108	114	117	60	14	28	40
7:00 AM		92	88	102	129	40	24	61	57
7:15 AM		108	106	86	86	38	27	64	60
7:30 AM		126	114	120	112	77	40	97	101
7:45 AM		158	136	122	136	58	64	114	112
8:00 AM		132	142	142	146	69	37	106	102
8:15 AM		128	151	134	111	53	46	109	90
8:30 AM		114	136	120	106	61	68	116	123
8:45 AM		122	140	138	116	80	53	151	128
9:00 AM		119	134	126	112	65	54	131	104
10:00 AM		112	126	122	118	56	79	120	130
10:15 AM		117	112	82	84	65	68	114	120
10:30 AM		94	114	120	114	51	67	131	116
10:45 AM		98	126	116	110	55	73	132	114
11:00 AM		105	96	86	96	64	77	146	101
11:15 AM		103	89	90	93	63	90	106	100
11:30 AM		93	104	97	98	58	107	118	110
11:45 AM		112	92	97	90	68	67	105	94
12:00 N		96	98	95	109	55	98	104	92
12:15 PM		107	100	88	105	71	92	104	103
12:30 PM		109	113	106	105	64	108	102	88
12:45 PM		100	98	108	94	68	108	98	102
1:00 PM		100	116	123	122	72	76	114	94
1:15 PM		109	113	98	118	78	92	97	104
1:30 PM		96	120	110	117	83	94	121	103
1:45 PM		120	98	109	120	72	95	106	108
2:00 PM		127	126	106	119	82	120	107	122

Route 45 @ 775 N. Main Street SB

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
	10/30/2023	10/31/2023	11/1/2023	11/2/2023	11/3/2023	11/4/2023	11/5/2023	11/6/2023	11/7/2023
12:00 AM		26	24	27	42	26	49	53	62
12:15 AM		27	34	20	28	18	26	46	51
12:30 AM		13	14	8	22	23	36	37	30
12:45 AM		15	23	14	26	21	40	34	24
1:00 AM		12	15	9	31	19	23	20	27
1:15 AM		10	7	15	13	15	30	18	22
1:30 AM		2	10	10	10	11	18	20	11
1:45 AM		3	7	8	13	9	19	10	11
2:00 AM		3	12	8	2	8	20	14	8
2:15 AM		6	5	2	11	13	12	11	6
2:30 AM		2	6	4	8	8	8	12	6
2:45 AM		1	6	5	6	5	8	4	4
3:00 AM		4	4	4	8	8	9	5	6
3:15 AM		4	6	5	5	12	13	6	4
3:30 AM		4	6	5	7	3	8	5	2
3:45 AM		4	7	7	6	5	9	6	4
4:00 AM		1	4	2	7	6	8	5	2
4:15 AM		7	11	5	4	7	8	6	2
4:30 AM		9	7	7	5	7	4	12	8
4:45 AM		9	8	9	10	11	10	7	3
5:00 AM		5	11	5	14	6	7	4	4
5:15 AM		20	16	22	20	10	12	10	3
5:30 AM		37	41	41	40	17	8	8	6
5:45 AM		26	30	32	33	12	9	12	12
6:00 AM		40	41	38	28	32	8	17	9
6:15 AM		52	48	50	47	17	10	19	16
6:30 AM		57	70	72	48	30	10	47	42
6:45 AM		87	89	90	100	28	13	32	28
7:00 AM		106	86	100	96	29	11	43	46
7:15 AM		98	100	86	83	47	17	44	42
7:30 AM		96	94	75	87	46	47	76	70
7:45 AM		95	111	109	100	46	34	90	80
8:00 AM		100	92	106	101	62	44	90	86
8:15 AM		118	124	128	102	53	58	96	87
8:30 AM		116	146	115	114	62	63	78	84
8:45 AM		116	117	112	116	83	53	95	95
9:00 AM		120	118	86	119	62	52	100	86
10:00 AM		123	127	114	130	56	64	128	88
10:15 AM		112	111	124	97	50	67	110	104
10:30 AM		96	97	91	100	59	99	98	86
10:45 AM		95	112	106	98	72	76	104	114
11:00 AM		70	100	104	97	56	89	130	92
11:15 AM		85	105	84	118	69	80	124	112
11:30 AM		106	82	84	84	67	104	113	91
11:45 AM		86	102	89	91	71	76	90	90
12:00 N		102	88	82	104	60	89	91	106
12:15 PM		89	84	80	86	68	88	86	83
12:30 PM		110	85	96	93	65	88	94	94
12:45 PM		106	96	90	105	74	97	90	98
1:00 PM		85	94	90	98	71	82	85	78
1:15 PM		85	101	78	102	60	90	92	91
1:30 PM		80	100	87	103	66	88	118	105
1:45 PM		98	102	84	104	67	88	146	97
2:00 PM		97	94	90	96	80	102	104	92

2:15 PM		98	92	97	96	86	81	92	94
2:30 PM		104	82	101	92	80	109	88	87
2:45 PM		108	100	87	124	66	93	88	111
3:00 PM		100	122	88	84	74	101	108	88
3:15 PM		104	104	110	126	72	90	110	102
3:30 PM	10	112	111	115	100	75	97	86	104
3:45 PM	154	112	98	90	116	94	120	112	104
4:00 PM	110	114	107	88	102	85	106	80	56
4:15 PM	105	86	98	102	136	88	117	124	0
4:30 PM	94	115	99	116	107	74	122	125	0
4:45 PM	106	108	116	100	120	66	134	99	0
5:00 PM	106	101	110	106	122	78	104	98	0
5:15 PM	114	104	96	114	124	80	100	104	0
5:30 PM	128	95	99	104	99	94	94	95	0
5:45 PM	109	102	134	100	94	74	111	115	0
6:00 PM	123	112	112	108	103	91	104	106	0
6:15 PM	114	115	118	122	118	93	99	108	0
6:30 PM	117	127	115	102	103	75	114	98	0
6:45 PM	92	122	120	102	96	101	108	134	0
7:00 PM	98	108	102	109	92	105	117	116	0
7:15 PM	105	116	122	129	94	79	92	141	0
7:30 PM	88	106	111	99	86	60	92	135	0
7:45 PM	93	102	102	124	83	81	82	110	0
8:00 PM	80	104	98	104	86	82	118	142	0
8:15 PM	90	100	94	100	64	87	118	110	0
8:30 PM	84	116	78	81	74	89	109	92	0
8:45 PM	72	100	76	104	61	69	92	88	0
9:00 PM	60	82	82	86	58	67	74	69	0
10:00 PM	62	84	74	75	42	54	74	93	0
10:15 PM	55	58	61	73	41	57	72	80	0
10:30 PM	70	55	78	71	44	60	67	80	0
10:45 PM	75	73	68	72	52	50	68	88	0
11:00 PM	69	54	61	55	44	54	66	78	0
11:15 PM	61	67	63	64	43	66	80	78	0
11:30 PM	41	80	61	50	43	83	72	64	0
11:45 PM	67	66	54	90	64	64	81	64	0

7:00-8:00	395	391	370
7:15-8:15	389	397	376
7:30-8:30	409	421	418
7:45-8:45	429	473	458
8:00-9:00	450	479	461

4:00-5:00	423	420	406
4:15-5:15	410	423	424
4:30-5:30	428	421	436
4:45-5:45	408	421	424
5:00-6:00	402	439	424

2:15 PM		118	106	106	133	78	124	120	97
2:30 PM		121	110	118	120	74	125	104	108
2:45 PM		115	124	122	133	86	92	110	126
3:00 PM		128	130	116	133	86	124	112	118
3:15 PM		148	136	104	114	74	111	114	106
3:30 PM		126	116	126	147	95	112	106	114
3:45 PM		128	116	138	129	84	114	122	108
4:00 PM	35	132	114	121	133	84	140	140	134
4:15 PM	273	141	136	137	112	100	130	118	57
4:30 PM	128	136	120	139	118	88	128	116	0
4:45 PM	134	126	118	138	110	106	116	138	0
5:00 PM	144	134	127	120	112	77	130	117	0
5:15 PM	122	116	111	122	110	74	125	130	0
5:30 PM	124	126	120	121	100	88	140	145	0
5:45 PM	122	116	132	129	141	84	125	127	0
6:00 PM	105	142	128	138	105	84	128	134	0
6:15 PM	124	124	124	134	98	74	123	120	0
6:30 PM	109	122	114	126	92	98	98	140	0
6:45 PM	116	132	126	126	76	71	114	150	0
7:00 PM	114	117	124	134	83	74	106	134	0
7:15 PM	118	114	124	134	103	78	110	100	0
7:30 PM	119	108	108	114	82	76	114	123	0
7:45 PM	96	131	126	112	96	77	90	122	0
8:00 PM	80	116	107	124	87	88	109	128	0
8:15 PM	63	96	108	116	86	80	95	104	0
8:30 PM	72	82	117	107	67	70	92	98	0
8:45 PM	87	100	78	90	64	81	77	106	0
9:00 PM	72	84	85	100	63	87	82	98	0
10:00 PM	78	72	89	83	62	79	81	78	0
10:15 PM	68	81	71	86	52	78	74	90	0
10:30 PM	76	76	80	82	44	70	77	91	0
10:45 PM	62	71	71	96	45	79	79	80	0
11:00 PM	62	60	75	66	54	65	90	70	0
11:15 PM	74	55	61	76	61	61	66	81	0
11:30 PM	73	69	64	84	53	65	65	76	0
11:45 PM	72	63	76	78	50	65	71	67	0

7:00-8:00	484	444	430
7:15-8:15	524	498	470
7:30-8:30	544	543	518
7:45-8:45	532	565	518
8:00-9:00	496	569	534

4:00-5:00	535	488	535
4:15-5:15	537	501	534
4:30-5:30	512	476	519
4:45-5:45	502	476	501
5:00-6:00	492	490	492