

APPENDIX M – TRAFFIC IMPACT STUDY

TRAFFIC IMPACT STUDY

FOR THE

**SCHODACK SALES DISTRIBUTION
CENTER**

US ROUTE 150
SCHODACK, NEW YORK

MARCH 23, 2021

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INTRODUCTION

McFarland Johnson, Inc. (MJ) has prepared the following Traffic Impact Study (TIS) for the proposed Sales Distribution Center project in the Town of Schodack, Rensselaer County, New York. The proposed development will be constructed on a 55.98-acre site of vacant land along the south side of NYS Route 150 (Schodack Valley Road) west of US Routes 9 & 20. The overall development consists of a 278,670 SF Sales Distribution Center with 78 loading docks, 294 trailer spaces and a 445-space employee lot. See Figure 1 for the Project Location Map.

As shown in Figure 2, Conceptual Site Layout Plan, the development will have three access driveways connecting to NYS Route 150 (Schodack Valley Road) comprised of separate enter and exit driveways restricted to truck traffic only and a single full access employee driveway. The facility is anticipated to have shift operations with 10-hour and 12-hour shifts for both daytime and nighttime. Traffic data from an identical sales distribution center facility was used in this traffic study to accurately estimate the traffic generated by the proposed sales distribution center.

Scope of the Study

The purpose of this study is to evaluate existing and future traffic operations within the study area. The analysis completed by MJ evaluated traffic operations within the study area during weekday morning and evening peak hours for the 2021 Base Conditions as well as the 2022 Build and No-Build Conditions.

Build Conditions were analyzed to determine the impacts, if any, associated with the proposed sales distribution center. Based on initial project scoping discussions at the project kickoff meeting, the study area includes the following intersections:

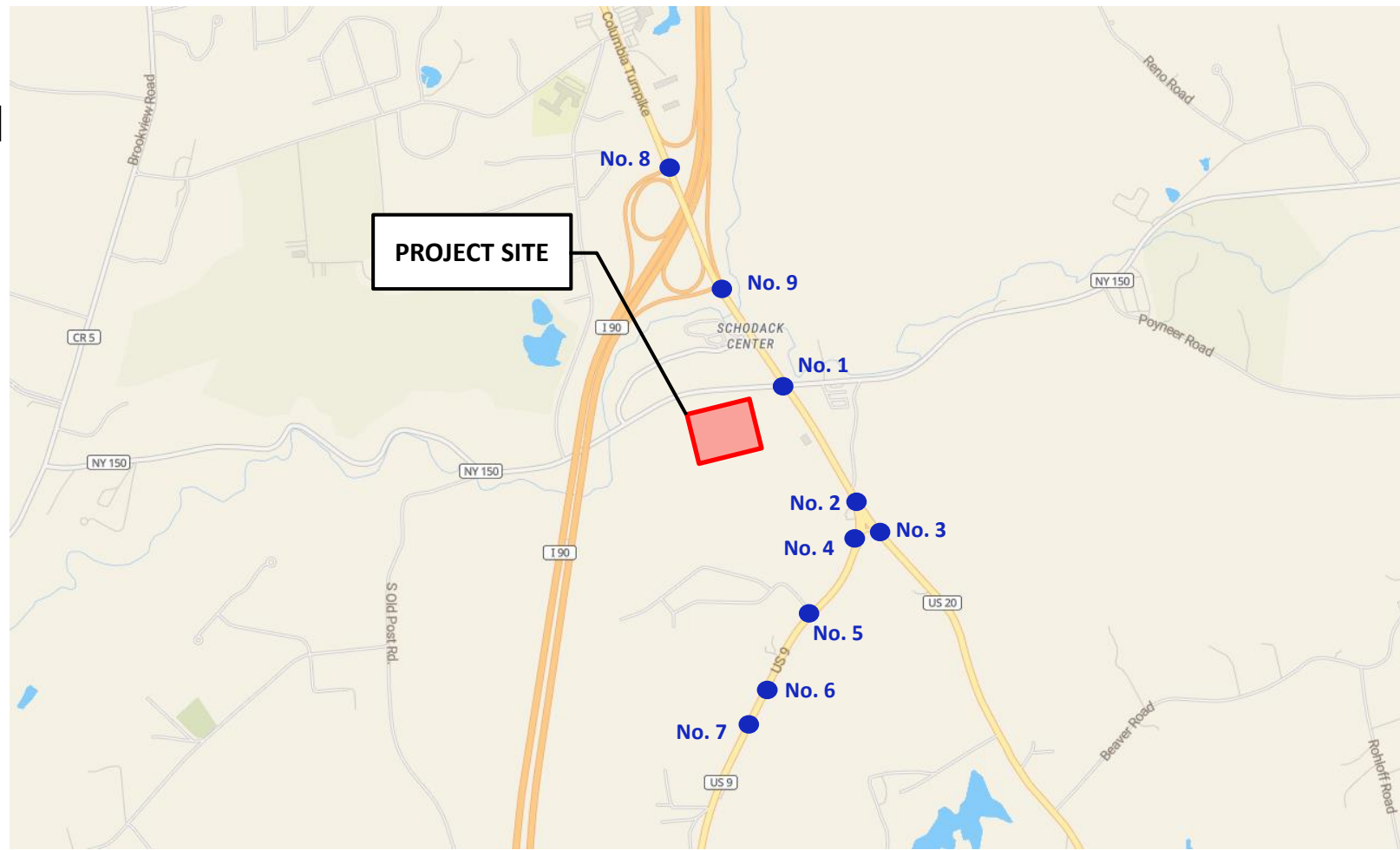
- No. 1 - US Route 9/20 @ NYS Route 150 (Schodack Valley Rd.) – *Signalized*
- No. 2 - US Route 9 @ US Route 20 (Main Intersection)- *Signalized*
- No. 3 - US Route 9 @ US Route 20 (Channelized Movements East) - *Un-Signalized*
- No. 4 - US Route 9 @ US Route 20 (Channelized Movements West) - *Un-Signalized*
- No. 5 – US Route 9 @ Richwood Drive – *Un-Signalized*
- No. 6 – US Route 9 @ Amazon Sales Distribution Center Employee Driveway – *Signalized*
- No. 7 – US Route 9 @ Amazon Sales Distribution Center Truck Driveway – *Un-Signalized*
- No. 8 – US Route 9/20 @ Interstate 90 Westbound Exit 11 Off Ramp – *Un-Signalized*
- No. 9 – US Route 9/20 @ Interstate 90 Eastbound Exit 11 On Ramp – *Un-Signalized*

Descriptions of the existing physical conditions within the roadway corridor are presented in the following narratives.





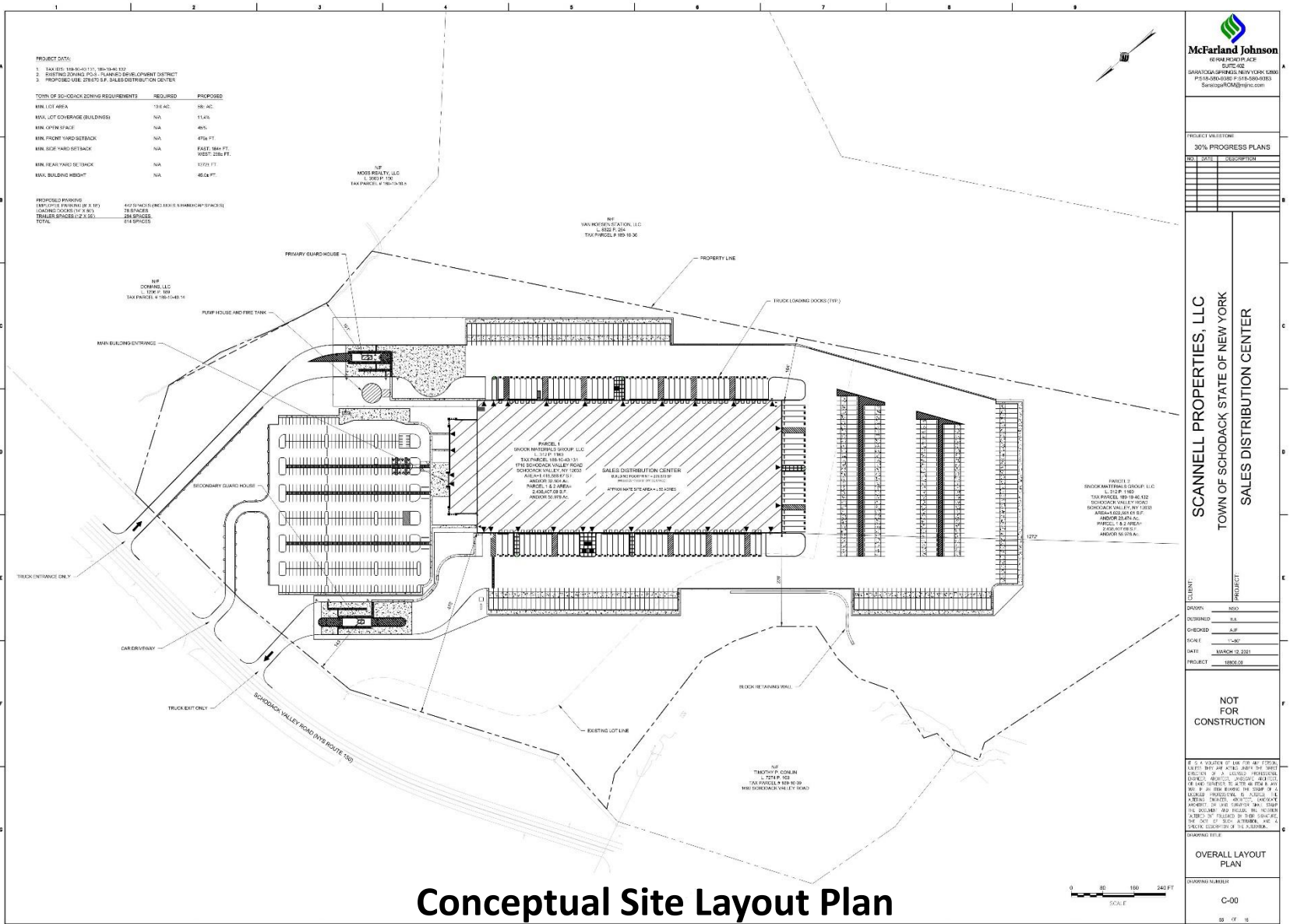
Not to Scale



LEGEND

-  Project Site
-  Study Area Intersection

Project Location Map



Conceptual Site Layout Plan

EXISTING CONDITIONS

Evaluation of the existing and future traffic conditions within the study area requires an understanding of the existing transportation system. Data such as roadway geometrics, traffic signal timings and peak hour traffic volumes provide the basis for a thorough understanding of existing conditions and the requisite data necessary to provide projections of future traffic conditions typical under the Build scenario.

Existing Roadway Network

The project is located on the south side of NYS Route 150 (Schodack Valley Road), to the west of US Route 9/20. NYS Route 150 (Schodack Valley Road) is a two-lane east-west road classified as an urban minor arterial road to the east of US Route 9/20 and an urban major collector to the west, with an annual average daily traffic (AADT) volume of 4,000 to the east of US Route 9/20 and 770 to the west, with a posted speed limit of 45 mph. NYS Route 150 (Schodack Valley Road) serves to provide access to Interstate 90 for businesses and homes east and west of US Route 9/20.

The US Route 9/20 overlap is classified as an urban principal arterial with an AADT of approximately 17,500 vehicles and a posted speed limit of 45 mph in the project study area. It serves as a North-South connector between Interstate 90 interchanges 11 and 12, providing access to businesses and homes in the area as well as the state, county and local collector roadway network.

US Route 9 is a five-lane north-south minor arterial road with an average annual daily traffic (AADT) volume of 6,900.

Figure 3 shows the existing geometry and traffic control type for the nine existing off-site study area intersections and descriptions of these intersections are provided below.

No. 1 – US Route 9/20 & NYS Route 150 (Schodack Valley Rd.)

This is a 4-legged three phase actuated signalized intersection with a southbound permissive-protected left turn phase. At the intersection, US Route 9/20 provides dual through lanes with dedicated left lanes in both approaches with an additional dedicated right turn lane on the southbound approach. The eastbound and westbound approaches are single lane with no protected turn movements. US Route 9/20 and NYS Route 150 have 45-mph speed limits.



No. 2,3,4 – US Route 9 & US Route 20 Intersection/Split

This is a 3-legged 'Y' intersection which is signalized with a 2-phase signal for the primary through vehicle movements with channelized stop sign control for the turning movements to/from south legs of the intersection. The US Route 9/20 southbound approach widens from two lanes to provide two through lanes (US Route 20) and two free flow channelized right turn lanes (US Route 9). The US Route 20 northbound approach has a single through lane at the signalized intersection, while the US Route 9 northbound approach has dual through lanes. US Route 20 has a 45-mph posted speed limit while US Route 9 is posted at 55 mph. The connector road between the south legs is stop sign controlled with single lanes in both directions.



No. 5 – US Route 9 & Richwood Drive

This is a 3-legged unsignalized intersection with stop sign control for Richwood Drive. US Route 9 has dual through lane approaches northbound and southbound with a center two way left turn lane. Richwood Drive is an unstriped local road with a 30-mph posted speed limit providing access to a residential neighborhood subdivision.



No. 6 – US Route 9 & Amazon Sales Distribution Center Employee Driveway

This is a 3-legged signalized intersection that provides access onto US Route 9 for employees of the recently constructed sales distribution center. The eastbound approach consists of two left-turn lanes and a right-turn lane, with the northbound approach featuring two through lanes and a dedicated left-turn lane, and the southbound approach featuring two through lanes and a dedicated right-turn lane. The posted speed limit on US Route 9 is 55 mph.



No. 7 – US Route 9 & Amazon Sales Distribution Center Truck Driveway

This is a 3-legged unsignalized intersection with stop sign control for the sales distribution center driveway. The eastbound approach is restricted to right-out turn movements only for trucks exiting onto US Route 9, and US Route 9 has dual through lane approaches northbound with a center two way left turn lane for trucks entering the sales distribution center from the south.



The southbound approach consists of a through and through-right lane for trucks entering from the north. The posted speed limit on US Route 9 is 55 mph.

No. 8 – US Route 9/20 & I-90 Westbound Exit 11 Off-Ramp

This is a 3-legged unsignalized intersection with stop sign control for the off-ramp. US Route 9 has dual through lane approaches northbound and southbound with a free flow on-ramp to I-90 westbound. The off-ramp is a single lane with a 45-mph posted advisory speed.



No. 9 – US Route 9/20 & I-90 Eastbound Exit 11 On-Ramp

This is a 3-legged unsignalized intersection with a dedicated northbound left turn lane to enter the on-ramp. US Route 9 has dual through lane approaches northbound and southbound with a dedicated right turn lane to the I-90 eastbound on-ramp. The on-ramp is a single lane with a 35-mph posted advisory speed.



Traffic Data Collection

Existing traffic volumes for the study area intersections were established for this project by performing manual turning movement counts (TMC). Traffic counts were video recorded from 7:00 to 9:00 AM and 4:00 to 6:00 PM on Thursday, February 4, 2021. Class, speed, and volume data were also collected over a 24-hour period on NYS Route 150 (Schodack Valley Road). The TMC data shows that the traffic peaks between 7:00 to 8:00 in the morning and 4:00 to 5:00 in the evening.

Due to the COVID-19 pandemic, the data collected was compared to data from a study completed by McFarland Johnson, dated March 29, 2018 (Revised June 26, 2018) for the recently constructed sales distribution center project in Schodack, NY (Intersection #6 and #7). The current counted traffic volumes were approximately 13% lower than those counted in 2018. Following the NYSDOT Memo “Traffic Data Collection Guidance During COVID-19 Pandemic” dated August 11, 2020, to model existing and proposed traffic as accurately as possible for non-Pandemic conditions, the 2019 Build Scenario traffic volumes from the previous study were used as a base for this analysis. These volumes were adjusted to represent the assumed 2021 volumes, by increasing the volumes by 1% per year, for a total increase of 2%. These adjusted volumes were used as the base scenario to develop a comparison to future conditions and enable the analysis to calibrate the traffic model to mimic the present real-life operations anticipated following the COVID-19 pandemic.

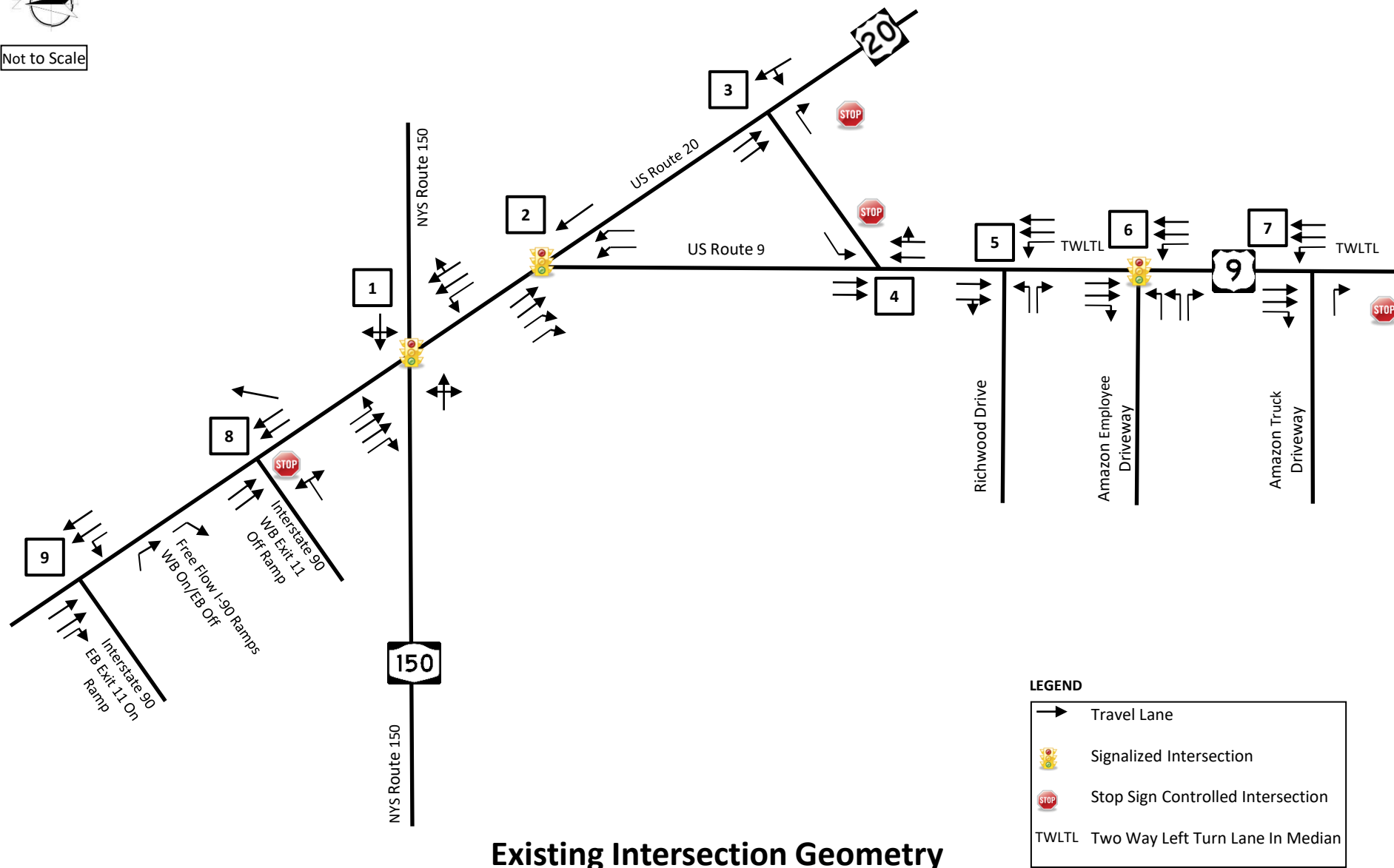
The 2019 Build Scenario data from the previous study represents a conservative estimate of traffic in the area, as the volumes counted at the Amazon driveways in 2021 were as much as 57% less than the peak volumes used in the previous study.

The 2021 TMC data collected and the 2019 Build Scenario traffic volumes from the similar traffic study used to create the 2021 Base Traffic volumes are included in Appendix A.

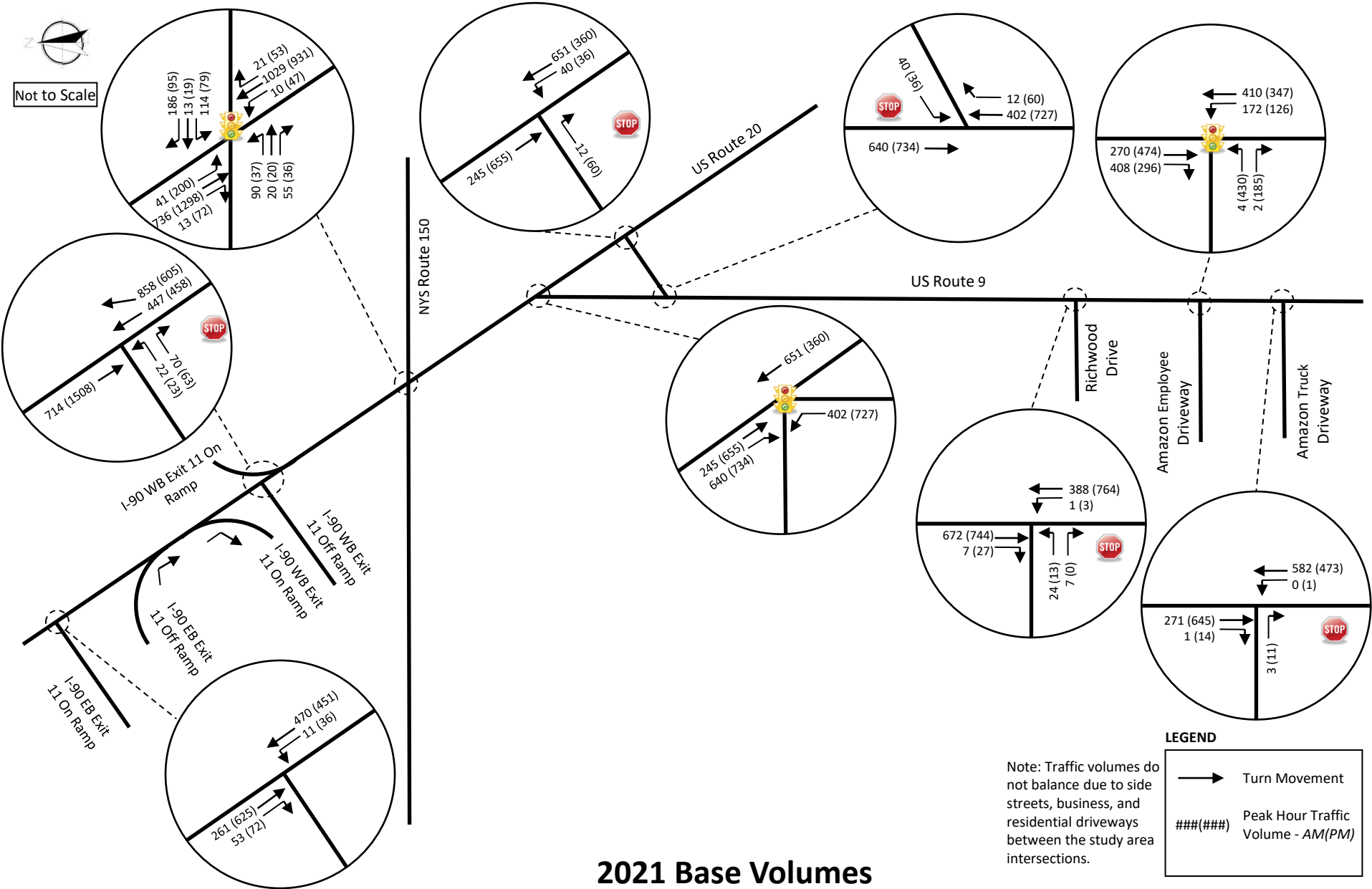
2021 Base Traffic Volumes

The calculated 2021 Base Traffic Volumes in the Study Area are shown in Figure 4. Analysis of the base condition allows the TIS to develop a comparison to future conditions and enables the study to calibrate the traffic model to mimic the present real-life operations anticipated following the COVID-19 Pandemic.





Existing Intersection Geometry



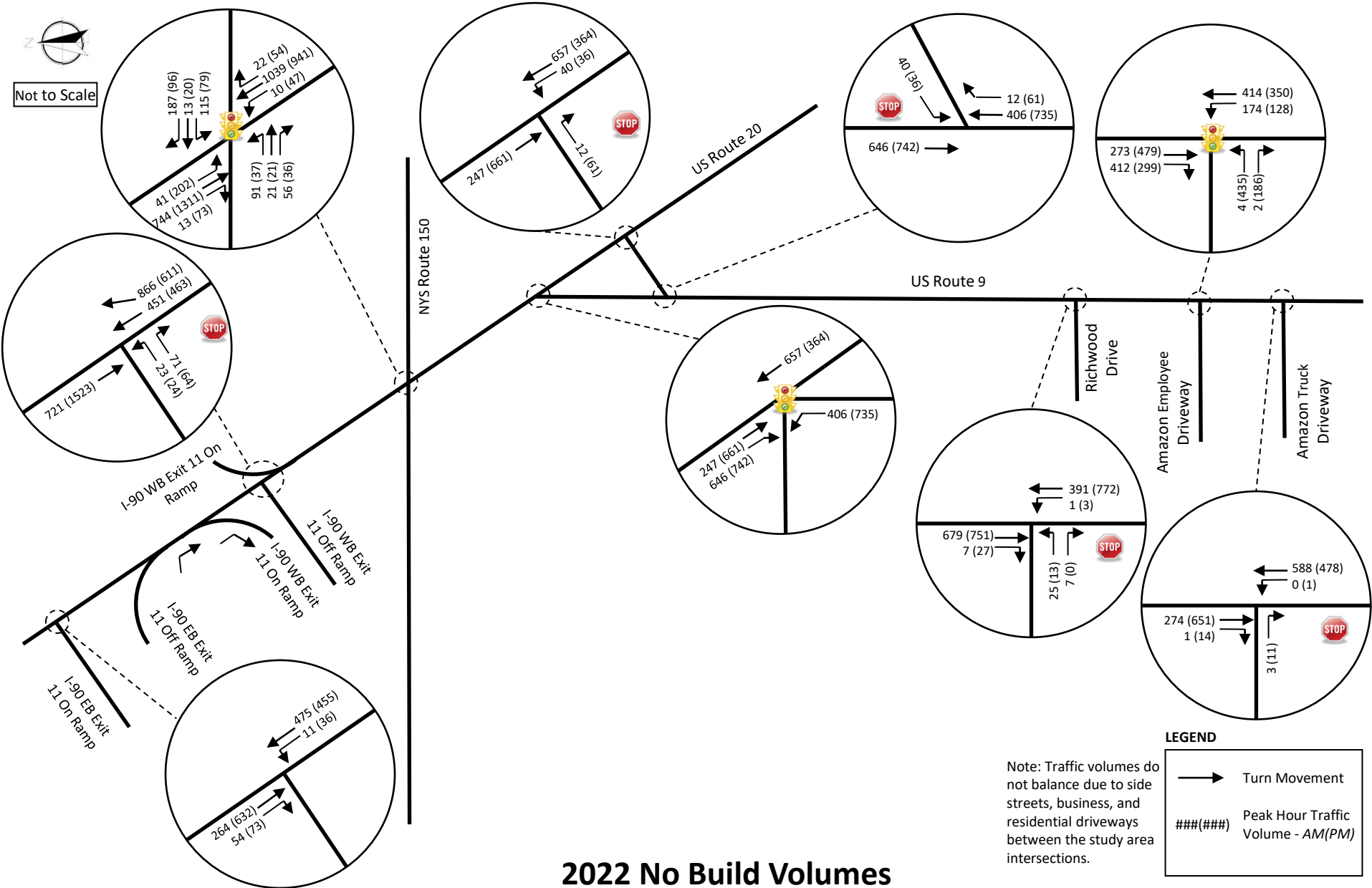
NO-BUILD CONDITIONS

2022 No-Build Volumes

The 2021 base traffic volumes were grown by an annual background growth rate of 1.0% per year, based on a review of the historic traffic volume data available for US Route 9 provided in the NYSDOT annual traffic volume data reports and the previous traffic study performed for a similar adjacent property. Utilizing the previous study's build volumes grown to 2022 is a conservative approach given the unknown if the traveling public will go back to pre-pandemic travel patterns amounting to the previous peak hour traffic volumes by 2022.

The 2022 No-Build volumes shown in Figure 5 include base traffic and the annual background growth. These traffic volumes are used as a base upon which to add the proposed development's traffic.





BUILD CONDITIONS

Trip Generation

The proposed sales distribution center is scheduled to be completed in 2022. For analysis purposes, site generated traffic was estimated using traffic data available from a similar sales distribution center currently operated by the same end user. The facility is anticipated to operate on four separate shifts associated with two shift lengths of 10 and 12 hours, respectively. This will break up the peak hour traffic volumes entering/exiting the site to avoid a whole facility turn over in a small timeframe. To be conservative and plan for the worst-case scenario, this study combined the arriving/departing trips over a 2-hour span which would represent a complete shift change in the peak hours. The proposed operations had these shift changes occurring at the following two-hour timeframes:

- Morning Shift Change 7:00AM to 9:00AM
- Evening Shift Change 6:00PM to 8:00PM

The truck traffic is projected to be between 29-58 trips during the morning and evening peak hours. Like the employee traffic volumes, truck volumes spanning the two-hour shift change timeframes were added to the peak hours in order to be conservative. Detailed tables of the anticipated employee and truck traffic throughout the typical workday, both peak and non-peak, associated with the proposed sales distribution center is provided in Appendix B.

Shown in Table 1 are the resulting trip generation volumes for the proposed project during the peak timeframe. Although these proposed trips would not necessarily occur during the existing roadway network peak hours (7-8am and 4-5pm), the volumes were added to the existing background traffic volumes to assume a worst-case scenario as it relates to traffic impacts.

Table 1 - Trip Generation Table

Type of Land Use	Source	Vehicle Type	Weekday Morning Peak (7:00-9:00AM)			Weekday Evening Peak (6:00-8:00PM)		
			Enter	Exit	Total	Enter	Exit	Total
278,670 SF Sales Distribution Center	Similar Facility	Employees	140	140	280	140	140	280
		Trucks	12	17	29	34	24	58
Total			152	157	309	174	164	338

* Trip Generation Data provided by end user's similar sales distribution center traffic volume data.

Additional data and calculation sheets used to develop the trip generations rates are included in Appendix B.

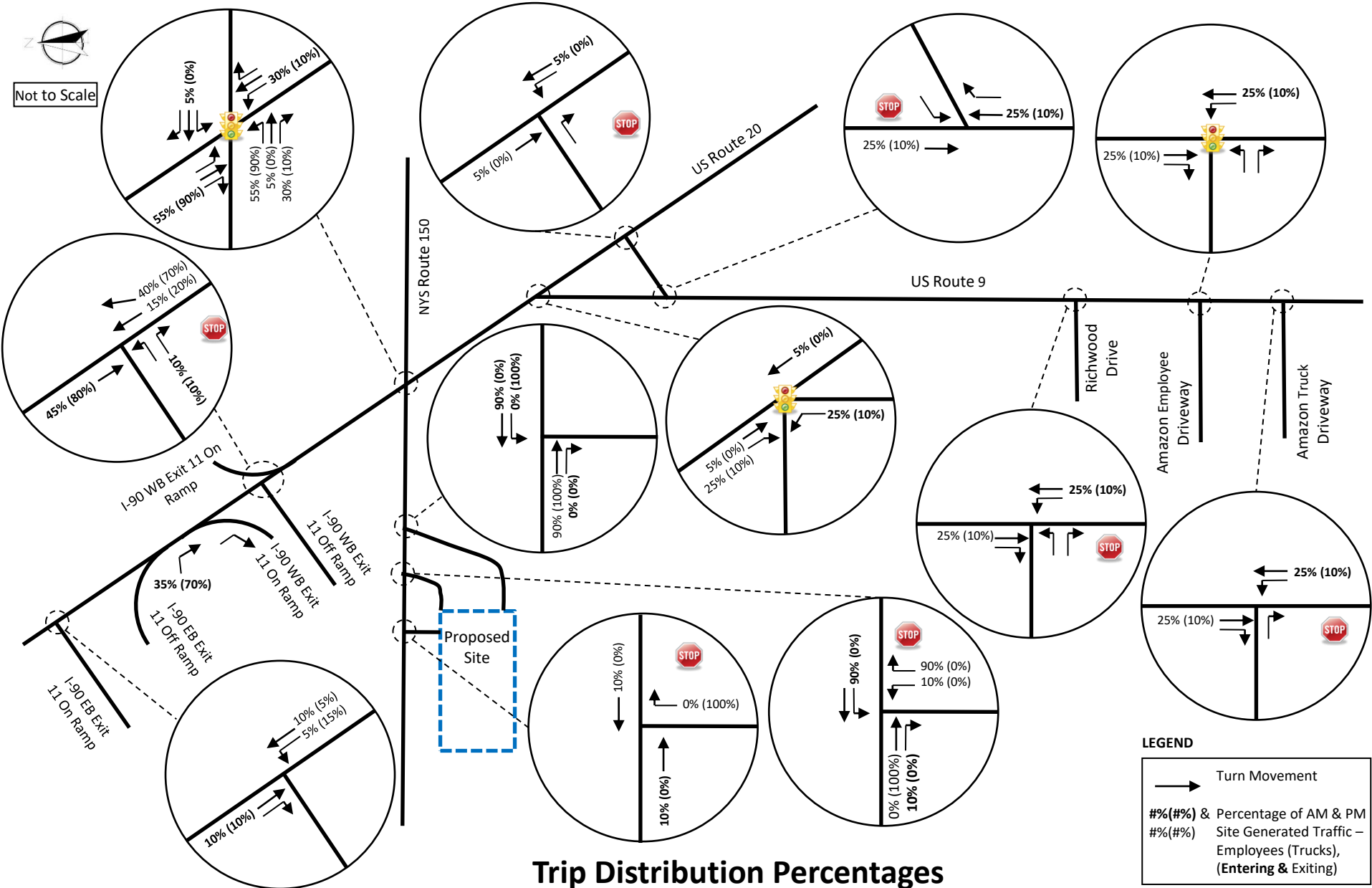


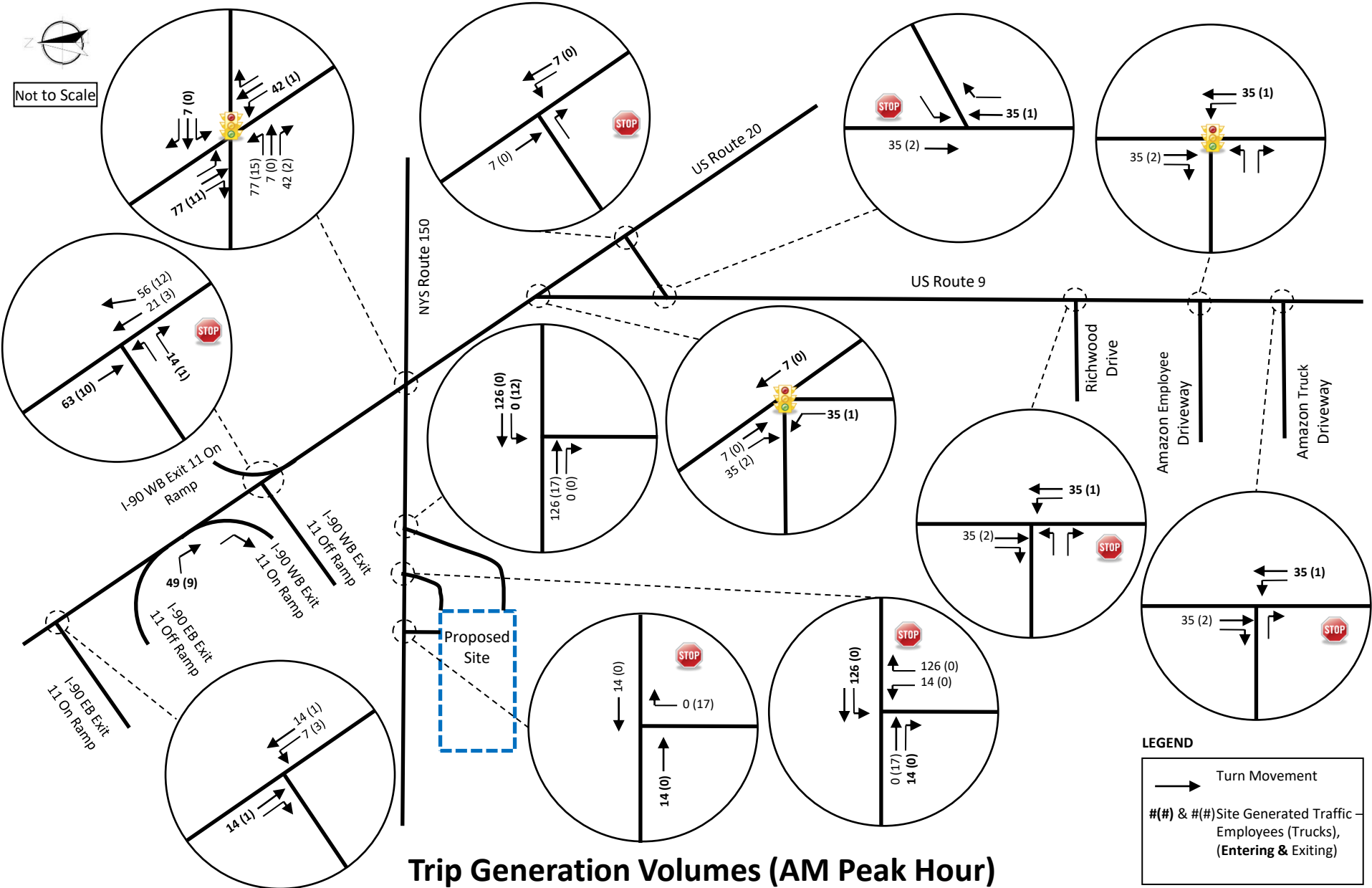
Trip Distribution

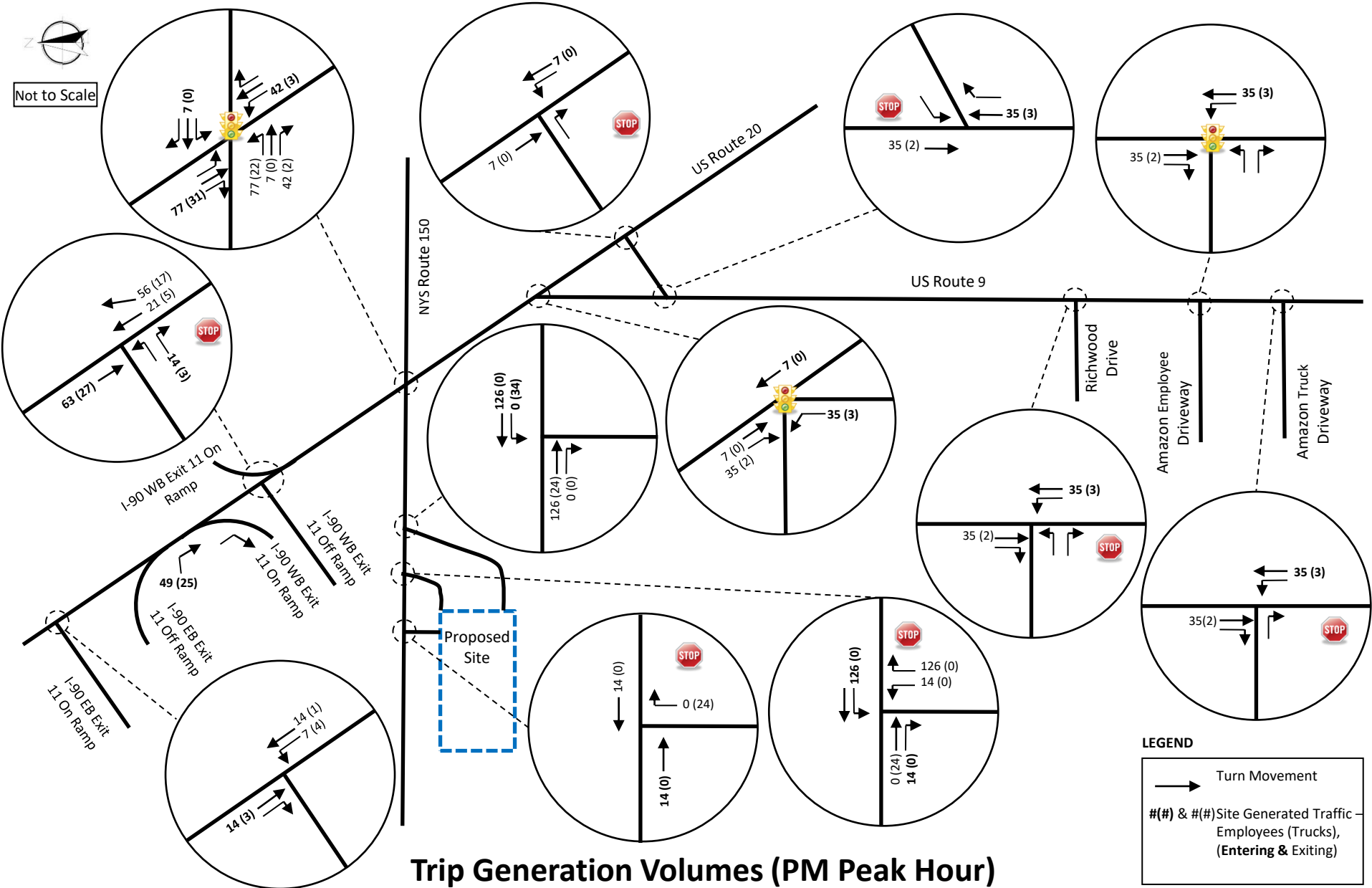
Trip distribution for the proposed project included consideration of the existing traffic patterns in the area, previous sales distribution center traffic studies completed as well as the general residential base for potential employee locations in the region. This resulted in an estimation that 90% of employee traffic and 100% of truck traffic will exit the site to the east. 55% of the employee traffic will travel north on US Route, 9 while 30% will travel south, and 5% will travel east. It is also assumed that nearly all of the truck traffic (90%) will travel north to utilize the I-90 partial cloverleaf Interchange 11. Figure 6 shows the calculated trip distribution percentages separated for employee and truck traffic for the proposed development's access drives onto NYS Route 150 as well as the remainder of the study area intersections for the morning and evening peak hours respectively.

The trip distribution percentages were used to assign the trips generated by the proposed project, shown in Figures 7 and 8 for the morning and evening peak hours.





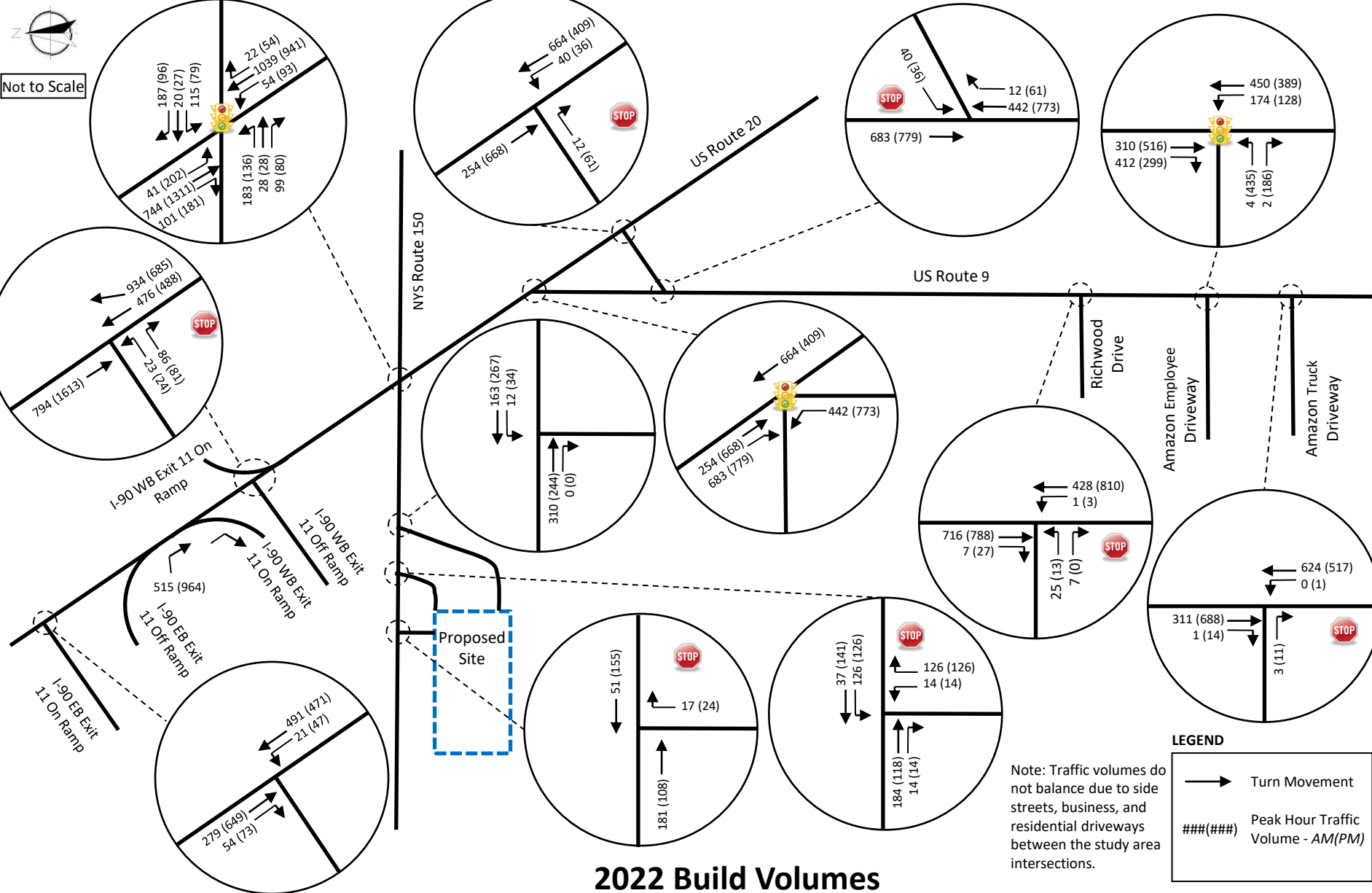




2022 Build Traffic Volumes

Figure 9 shows the weekday morning and evening proposed peak hour traffic volumes associated with the 2022 Build conditions. These volumes represent the 2021 base volumes combined with the addition of the estimated trips generated by the proposed project as well as the background annual traffic growth. As a conservative measure, the proposed development's peak hour of traffic generation was combined with the existing background traffic's peak hours. The current proposed operations result in peak hour traffic generation that may be offset depending on the shift change taking place; however, the background traffic in the area is consistent during the overall commuter peak periods (7-9AM and 4-6PM) such that combining the peak volumes was determined to be the most appropriate and accurate means of determining the overall 2022 Build volumes. This also accounts for any future changes in operations that may align the shift changes with the surrounding roadway network peak hour traffic volumes.





2022 Build Volumes

TRAFFIC OPERATIONS

Intersection Capacity – Unsignalized Intersections

Level of service (LOS) is a term used to characterize the operational conditions of a traffic facility at a particular point in time. Numerous factors contribute to a facility's LOS including travel delay and speed, congestion, driver discomfort, convenience, and safety based on a comparison of the facility's capacity to the facility's demand. Alphabetic designations A through F define the six levels of service. LOS A represents very good traffic operating conditions with minimal delays while LOS F depicts poor traffic operating conditions with excessive delays and queues.

Operating levels of service are calculated using the procedures defined in the Highway Capacity Manual (6th Edition) published by the Transportation Research Board. The operating LOS of two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections is the computed or measured delay. The intersection delay is based upon the quality of service for the vehicles turning into and out of minor approaches, i.e., approaches that are stop controlled. The availability of sufficient gaps in the traffic stream on the major street controls the capacity for movements to and from the minor approaches, thus resulting in delays for the minor approaches. The criteria, or the delays associated with corresponding levels of service for TWSC and AWSC intersections, as specified by the Highway Capacity Manual (6th Edition) and are shown in Table 2 below.

Table 2
Unsignalized Intersection Level of Service Criteria

Level of Service	Controlled Delay (sec/veh)
	TWSC and AWSC Intersections
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Intersection Capacity – Signalized Intersections

The operating LOS of a signalized intersection is based on the average control delay per vehicle. The control delay per vehicle is estimated for each lane group, combined for each approach and the intersection as a whole. The criteria, i.e., the delays associated with corresponding levels of service for signalized intersections, as specified by the Highway Capacity Manual (6th Edition) are shown in Table 3.



Table 3
Signalized Intersection Level of Service Criteria

Level of Service	Controlled Delay (sec/veh) Signalized Intersections
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Presented in Table 4 are the results of the analysis for the 2021 Base, 2022 No-Build and 2022 Build conditions for the intersections located within the study area. The traffic modeling software Synchro, Ver. 10.0 which utilizes the methodologies of the Highway Capacity Manual (6th Edition) for un-signalized and signalized intersection was used for the analysis portion of this study. The full analysis results printouts from the Synchro software are located in Appendix C.



TRAFFIC IMPACT STUDY
SALES DISTRIBUTION CENTER - SCHODACK, NY

Table 4
Level of Service Table

			Morning Peak Hour							
Study Intersection	Approach and Movement		2021 BASE		2022 NO-BUILD		2022 BUILD		2022 BUILD - MITIGATION*	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US Route 9/20 at NYS Route 150 (Schodack Valley Rd) (Signalized)	Eastbound	(L)-T-R	30.3	C	30.9	C	186.0	F	48.6	D
		T-R							7.1	A
	Westbound	(L)-T-R	52.4	D	53.2	D	69.0	E	45.5	D
		T-R							21.3	C
	Northbound	L	13.1	B	13.1	B	17.9	B	21.3	C
		T	24.5	C	25.1	C	25.4	C	31.0	C
	Southbound	L	9.6	A	9.6	A	9.7	A	12.5	B
		T	10.0	B	10.1	B	10.2	B	12.7	B
		R	0.1	A	0.1	A	2.3	A	2.9	A
	OVERALL		24.5	C	25.0	C	45.6	D	24.8	C
US Route 9 at US Route 20 (Signalized)	Northbound	L	23.0	C	23.1	C	24.3	C		
		T	7.2	A	7.2	A	7.3	A		
	Southbound	R	0.2	A	0.2	A	0.2	A		
		T	23.1	C	23.6	C	24.6	C		
	OVERALL		14.3	B	14.5	B	15.1	B		
US Route 9 at US Route 20 East (Un-Signalized)	Northwest	L	8.3	A	8.3	A	8.3	A		
	Eastbound	R	9.5	A	9.5	A	9.5	A		
	OVERALL		0.5	A	0.5	A	0.5	A		
US Route 9 at US Route 20 West	Westbound	L	15.3	C	15.4	C	16.2	C		
	OVERALL		0.6	A	0.6	A	0.5	A		
US Route 9 at Richwood Drive (Un-Signalized)	Northbound	L	9.2	A	9.2	A	9.3	A		
	Eastbound	R	14.9	B	15.1	C	15.7	C		
	OVERALL		0.4	A	0.4	A	0.4	A		
US Route 9 at Amazon Employee Driveway (Signalized)	Eastbound	L	14.8	B	14.8	B	14.8	B		
		R	12.0	B	12.0	B	12.0	B		
	Northbound	L	2.2	A	2.2	A	2.2	A		
		T	1.3	A	1.3	A	1.4	A		
	Southbound	T	6.2	A	6.3	A	6.3	A		
		R	2.6	A	2.6	A	2.6	A		
	OVERALL		3.0	A	3.0	A	3.1	A		
US Route 9 at Amazon Truck Driveway (Un-Signalized)	Northbound	L	0.0	A	0.0	A	0.0	A		
	Eastbound	R	11.0	B	11.0	B	11.2	B		
	OVERALL		0.0	A	0.0	A	0.0	A		
Interstate 90 WB Exit 11 Off Ramp	Eastbound	L-R	20.7	C	21.4	C	26.2	D		
	OVERALL		2.5	A	2.6	A	3.4	A		
Interstate 90 EB Exit 11 On Ramp	Northbound	L	8.0	A	8.0	A	8.1	A		
	OVERALL		0.2	A	0.2	A	0.3	A		
NYS Route 150 at Proposed Employee Driveway	Northbound	L-R					10.8	B	10.8	B
	Westbound	L					8	A	8	A
	OVERALL						5.0	A	5.0	A
NYS Route 150 at Proposed Truck Entrance Driveway	Westbound	L					0.1	A	8	A
		T					0.6	A	0	A
	OVERALL						0.2	A	0.2	A
NYS Route 150 at Proposed Truck Exit Driveway	Northbound	R					9.4	A		
	OVERALL						0.6	A		

* Mitigation includes 150 FT left turn lanes at the proposed site driveway entrances and the addition of an eastbound permissive-protected left-turn lane, a westbound permissive left-turn lane, and changes to the traffic signal timing at the US Route 9 / NYS Route 150 intersection, including increasing the cycle length from 65 seconds to 73 seconds.



TRAFFIC IMPACT STUDY

SALES DISTRIBUTION CENTER - SCHODACK, NY

Table 4
Level of Service Table

			Evening Peak Hour							
Study Intersection	Approach and Movement		2021 BASE		2022 NO-BUILD		2022 BUILD		2022 BUILD - MITIGATION*	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US Route 9/20 at NYS Route 150 (Schodack Valley Rd) (Signalized)	Eastbound	(L)-T-R	17.1	B	17.2	B	54.6	D	27.1	C
		T-R						15.9	B	
	Westbound	(L)-T-R	31.1	C	31.8	C	33.5	C	40.5	D
		T-R							13.7	B
	Northbound	L	21.6	C	21.8	C	45.1	D	45.0	D
		T	21.7	C	22.1	C	23.5	C	25.9	C
	Southbound	L	13.1	B	13.3	B	13.8	B	19.6	B
		T	9.3	A	9.5	A	10.1	B	12.7	B
	R	1.9	A	1.9	A	1.6	A	2.8	A	
OVERALL		15.8	B	16.1	B	20.1	C	19.2	B	
US Route 9 at US Route 20 (Signalized)	Northbound	L	15.0	B	15.1	B	15.6	B		
	Southbound	T	12.4	B	12.5	B	12.7	B		
		R	0.2	A	0.3	A	0.3	A		
	Northwest	T	15.4	B	15.6	B	17.9	B		
	OVERALL		10.0	A	10.1	B	10.7	B		
US Route 9 at US Route 20 East (Un-Signalized)	Northwest	L	9.6	A	9.6	A	9.7	A		
	Eastbound	R	11.3	B	11.3	B	11.4	B		
	OVERALL		0.9	A	0.9	A	0.9	A		
US Route 9 at US Route 20 West	Westbound	L	19.6	C	19.8	C	20.8	C		
	OVERALL		0.5	A	0.5	A	0.5	A		
US Route 9 at Richwood Drive (Un-Signalized)	Northbound	L	9.6	A	9.5	A	9.6	A		
	Eastbound	R	18.3	C	18.0	C	18.8	C		
	OVERALL		0.2	A	0.2	A	0.2	A		
US Route 9 at Amazon Employee Driveway (Signalized)	Eastbound	L	17.3	B	17.3	B	17.3	B		
		R	4.8	A	4.7	A	4.7	A		
	Northbound	L	7.4	A	7.4	A	7.5	A		
		T	7.2	A	7.2	A	7.3	A		
	Southbound	T	13.1	B	13.2	B	13.5	B		
		R	3.8	A	3.8	A	3.8	A		
	OVERALL		10.2	B	10.3	B	10.4	B		
US Route 9 at Amazon Truck Driveway (Un-Signalized)	Northbound	L	13.0	B	13.1	B	13.5	B		
	Eastbound	R	13.9	B	14.0	B	14.4	B		
	OVERALL		0.2	A	0.2	A	0.2	A		
Interstate 90 WB Exit 11 Off Ramp	Eastbound	L-R	61.4	F	67.3	F	94.8	F		
	OVERALL		2.6	A	2.9	A	4.5	A		
Interstate 90 EB Exit 11 On Ramp	Northbound	L	9.4	A	9.5	A	9.6	A		
	OVERALL		0.3	A	0.3	A	0.4	A		
NYS Route 150 at Proposed Employee Driveway	Northbound	L-R					10.4	B	10.3	B
	Westbound	L					7.8	A	7.8	A
	OVERALL						4.5	A	4.5	A
NYS Route 150 at Proposed Truck Entrance Driveway	Westbound	L					0.3	A	7.9	A
		T					1.1	A	0	A
	OVERALL						0.6	A	0.5	A
NYS Route 150 at Proposed Truck Exit Driveway	Northbound	R					9	A		
	OVERALL						0.8	A		

* Mitigation includes 150 FT left turn lanes at the proposed site driveway entrances and the addition of an eastbound permissive-protected left-turn lane, a westbound permissive left-turn lane, and changes to the traffic signal timing at the US Route 9 / NYS Route 150 intersection, including increasing the cycle length from 63 seconds to 80 seconds.



As shown, the proposed development, with the proposed mitigation measures, has a negligible effect on the traffic operations in the study area. Described below is a detailed breakdown of the impacts, if any, on the study area intersections' operations as a result of traffic from the proposed development.

No. 1 – US Route 9/20 at NYS Route 150 (Schodack Valley Rd.)

This signalized intersection is operating adequately for the base and no build scenarios during the morning and evening peak hours with an overall LOS 'C' and LOS 'B', respectively. Under the build scenario, the eastbound level of service drops from a LOS 'C' to LOS 'F' during the morning peak hour and a LOS 'B' to LOS 'D' during the evening peak hour due to the volume of site-generated traffic making left turns on this approach. Under this scenario, the intersection will operate at an overall LOS 'D' during the morning peak hour and an overall LOS 'C' during the evening peak hour. In order to improve levels of service and mitigate the effects of site generated traffic on the intersection, it is recommended that dedicated permissive-protected left turn lanes be added to the eastbound and westbound approaches as well as incorporate changes to the traffic signal timing by increasing the cycle length from 65 to 73 seconds during the morning peak hour and 63 to 80 seconds during the evening peak hour in order to provide more time to the east and west left turn movements. This mitigation has the effect of improving the individual turn movement's levels of service as well as the overall levels of service to a LOS C and LOS B for the AM and PM peak hours, respectively. Providing the protective left turn movements will also benefit the proposed truck traffic enabling safer left turn movements into US Route 9/20.

No. 2 – US Route 9 at US Route 20

This 2-Phase signalized intersection only services the conflicting through movements at the 'Y' interchange, resulting in acceptable levels of operations for all scenarios (LOS 'C' or better). No noticeable impacts from the proposed development are projected at this intersection; therefore, no mitigation is recommended as a result of the proposed development.

No. 3 – US Route 9 at US Route 20 (East Connections)

This un-signalized intersection has low stop sign controlled volumes as it provides specific movements for US Route 9 NB traffic turning onto US Route 20 SB and vice versa. This intersection has good operations for all scenarios (LOS 'B' or better). The proposed development has no impacts, as all LOS are maintained, and the vehicle delays are not projected to change. No mitigation is recommended at this intersection.

No. 4 – US Route 9 at US Route 20 (West Connections)

This un-signalized intersection has low stop sign controlled volumes as it provides specific movements for US Route 20 NB traffic turning onto US Route 9 SB and vice versa. This intersection has acceptable operations for all scenarios (LOS 'C' or better). The proposed development will have a negligible impact on the operations, and acceptable levels of service are maintained. No mitigation is recommended at this intersection as a result of the proposed development's traffic.



No. 5 – US Route 9 at Richwood Drive

This un-signalized intersection has acceptable operations for all scenarios (LOS ‘C’ or better). The proposed development is projected to increase the delay for the side street approach by an average of less than 1 second during the morning and evening peak hours, respectively, and the overall intersection LOS remains at an ‘A’ LOS during the 2022 Build scenario. No mitigation is recommended at this intersection as good operating conditions remain after incorporating the proposed development’s traffic.

No. 6 – US Route 9 at Amazon Sales Distribution Center Employee Driveway

This signalized intersection has acceptable operations for all scenarios (LOS ‘B’ or better). Despite using the worst-case scenario volumes projected for this intersection in the previous traffic study for this sales distribution center, there is adequate capacity, and the proposed development is not projected to have a noticeable impact on traffic operations at this intersection. No mitigation is recommended at this intersection as good operating conditions remain after incorporating the proposed development’s traffic.

No. 7 – US Route 9 at Amazon Sales Distribution Center Truck Driveway

This un-signalized intersection is operating efficiently today and will continue to do so under all No-Build and Build scenarios, with an overall level of service of LOS ‘A’. The proposed development is not projected to have a noticeable impact on traffic operations at this intersection. No mitigation is recommended at this intersection as good operating conditions remain after incorporating the proposed development’s traffic.

No. 8 – US Route 9/20 & I-90 Westbound Exit 11 Off-Ramp

This un-signalized intersection has acceptable operations for the morning peak hour (LOS ‘A’); however, existing left-turn movements from the off-ramp experience delay and failing levels of service in the evening peak hour for all scenarios. The proposed development is projected to increase the delay of the left-turn movement, dropping the level of service from a LOS ‘C’ to a LOS ‘D’ during the morning peak hour. However, the average delay is only projected to increase by less than 5 seconds. These increases in delay do not result in a change in overall LOS from the background to the build scenarios and the overall intersection LOS remains at a LOS ‘A’ as the high volume, US Route 9/20 traffic remains a free flow condition. No mitigation is recommended at this intersection as a result of the proposed development’s traffic.

No. 9 – US Route 9/20 & I-90 Eastbound Exit 11 On-Ramp

This un-signalized intersection has free flow conditions for all movements except the northbound left turns to enter the on ramp; therefore, it operates at a LOS ‘A’ for all scenarios. The proposed development is projected to have a negligible impact on traffic operations during both the morning and evening peak hours. The overall intersection LOS remains at unchanged at an ‘A’ LOS as the US Route 9/20 traffic remains a free flow condition. No mitigation is recommended at this intersection as good operating conditions remain after incorporating the proposed development’s traffic.



No. 10 – NYS Route 150 (Schodack Valley Road) at Proposed Truck Entrance

The proposed sales distribution center development project will add consistent low volume truck traffic at this intersection throughout the day. Due to the relatively low peak volume of proposed left turning truck traffic at this intersection, the proposed unsignalized entrance provides acceptable LOS for the morning and evening peak hours, with proposed LOS ‘A’. In order to increase safety and reduce the impact of site generated traffic making left turns into the site, a dedicated left turn lane on NYS Route 150 is recommended at this intersection. The proposed left turn truck volumes meet the guidelines provided in the AASHTO design manual for left-turn lane warrants. With the recommended left-turn lane, the proposed driveway will have a negligible impact on the traveling public on NYS Route 150.

No. 10 – NYS Route 150 (Schodack Valley Road) at Proposed Employee Driveway

This proposed unsignalized intersection is projected to operate efficiently with an overall LOS ‘A’ during both peak hours. The proposed single exit lane provides adequate capacity for the traffic generated by the development. In order to increase safety and reduce the impact of site generated traffic making left turns into the site, a dedicated left turn lane on NYS Route 150 is recommended at this intersection. The proposed left turn volumes meet the guidelines provided in the AASHTO design manual for left-turn lane warrants. With the recommended left-turn lane, the proposed driveway will have a negligible impact on the traveling public on NYS Route 150.

No. 11 – NYS Route 150 (Schodack Valley Road) at Proposed Truck Exit

The proposed sales distribution center development project will add consistent low volume of exiting truck traffic at this intersection throughout the day. Due to the proposed volume of truck traffic at this intersection and the restriction of trucks to exiting movements only, the proposed stop-sign control provides acceptable LOS for the morning and evening peak hours, with proposed LOS ‘A’. The proposed truck exit does not currently have the necessary sight distance available due the presence of vegetation along NYS Route 150, and this vegetation, will need to be cleared in order to achieve the necessary sight distance. A sight distance analysis is included later in this report. The proposed driveway will have a negligible impact on the traveling public on US Route 9 as this will be a free movement.

Sight Distance Analysis

The sight distances at the proposed site entrances on NYS Route 150 were field measured as well as calculated based on the roadway alignment and profile to determine if the available intersection sight distances meet the AASHTO recommended values. The standard intersection sight distance values and recommendations were applied for the right and left turning movements at the employee entrance. The truck exiting driveway was analyzed in the same fashion; however, the “Combination Truck” time gap of 10.5 seconds was utilized as well as the increased truck drivers eye height to calculate intersection sight distance. For the truck entrance driveway, a “Combination Truck” time gap of 7.5 seconds was utilized to calculate intersection sight distance, as detailed under Case F in the AASHTO design manual. The values shown in Table 5 are consistent with the values provided in the NYSDOT Highway Design Manual and those calculated per the AASHTO manual. Detailed drawings of the horizontal and vertical alignments for the proposed sight distance are



provided in Appendix B, which were used to calculate the available sight distances provided in Table 5. As shown in the following Table 5, adequate site distance is available at the proposed employee driveway and the truck entrance onto NYS Route 150 (Schodack Valley Road). The proposed truck exit does not currently have the necessary sight distance available due the presence of vegetation along NYS Route 150, and this vegetation, which is within the DOT right-of-way, will need to be cleared in order to achieve the necessary sight distance.

Table 5 – Sight Distance Summary Table

SIGHT DISTANCE CALCULATIONS						
Location	Speed Limit	Direction	AASHTO/NYS DOT Recommended Intersection Sight Distance	Available Intersection Sight Distance	AASHTO/NYS DOT Recommended Stopping Sight Distance	Available Stopping Sight Distance
Truck Entrance Only	45 mph	Looking West	500 feet (combination truck, Case F)	629 feet	360 feet	470 feet
Employee Entrance/Exit	45 mph	Looking East	500 feet	590 feet	360 feet	To US Route 9 Intersection (925 feet)
	45 mph	Looking West	430 feet	504 feet	360 feet	464 feet
Truck Exit	45 mph	Looking East	765 feet (combination truck)	765 feet	360 feet	492 feet
	45 mph	Looking West	700 feet (combination truck)	496 feet 1093 feet*	360 feet	896 feet

* Sight distance would increase with removal of trees and branches along the roadway

Signal Warrant Analysis

Signal warrants were reviewed for the proposed site driveways in accordance with the Federal Highway Administrations; Manual of Uniform Traffic Control Devices, 2009 edition. The site entrances were reviewed to see if the volume of employee or truck traffic warranted the consideration of a signal. Due to the projected levels of service and the relatively low volume of traffic traveling along NYS Route 150, a traffic signal is not warranted at any of the proposed site driveways.



CONCLUSIONS AND RECOMMENDATIONS

MJ has evaluated the traffic operations within the study area surrounding the proposed Sales Distribution Center in Schodack, NY. Results from the 2022 Build conditions indicate that the traffic generated by the proposed project will produce negligible increases in delay to the traveling public within the existing study area intersections and that access into and out of the proposed development can be provided in a safe manner with the proposed roadway configurations shown on the concept site plan and the recommended mitigation.

Based on the completed capacity analysis, MJ offers the following conclusion and recommendations:

- The proposed sales distribution center is projected to create 309 trips during the morning peak hour and 338 trips during the evening peak hour based on projected staffing/shifts provided by a similar sales distribution center.
- The employee and truck entrance driveways for the proposed development shall be stop sign controlled and consist of a single entrance and exit lane, as well as include a dedicated left turn lane on NYS Route 150 in accordance with NYSDOT highway design manual guidelines.
- The truck exit driveway will include a single exit lane and will have sufficient sight distance with the removal of vegetation along NYS Route 150.
- Mitigation at the US Route 9&20 / NYS Route 150 intersection will include the addition of a 150' permissive-protected left turn lane on the eastbound approach and a 100' permissive left-turn lane on the westbound approach, as well as traffic signal timing changes to optimize traffic flow through the intersection.
- The signal timings at the US Route 9&20 / NYS Route 150 intersection should be monitored as optimization may be needed with the construction of developments in the area and potential traffic pattern changes post-pandemic.
- Widening of NYS Route 150 from the US Route 9&20 intersection to the proposed employee entrance is recommended to provide dedicated left turn lanes into the site at the truck entrance and the employee entrance is recommended based on AASHTO left lane warrants.
- The existing surrounding roadway network has adequate capacity to accommodate the additional traffic generated by the proposed development with negligible impacts to the traveling public with the recommended mitigation in place.



REFERENCES:

- Trip Generation, 10th Edition. Institute of Transportation Engineers. Washington, D.C. 2017.
- Trip Generation Handbook, Second Edition. Institute of Transportation Engineers. Washington, D.C. June 2004.
- Highway Capacity Manual, Sixth Edition. Transportation Research Board. National Research Council, Washington, D.C. 2016.
- Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). Federal Highway Administration. 2009.
- “Traffic Data Collection Guidance during COVID-19 Pandemic” Memorandum. NYSDOT. August 11, 2020.
- A Policy on Geometric Design of Highways and Streets, Seventh Edition. American Association of State Highway and Transportation Officials, Washington, D.C. 2018.
- Highway Design Manual. New York State Department of Transportation, Albany, N.Y. January 28, 2021.



- **APPENDICES**

APPENDIX A TRAFFIC COUNT DATA

APPENDIX B TRAFFIC CALCULATIONS

APPENDIX C SYNCHRO ANALYSIS PRINTOUTS

APPENDIX A

TRAFFIC COUNT DATA

- Intersection Turn Movement Counts
 - Thursday (2/4/2021)
- 24-Hour Directional Volume & Speed Data
 - Thursday (2/4/2021)
- Intersection Turn Movement Counts
 - Thursday/Friday Tuesday (3/15/2018 & 3/16/2018)
 - Tuesday (6/5/2018)
- 24-Hour Directional Volume & Speed Data
 - Thursday/Friday Tuesday (3/15/2018 & 3/16/2018)



Thursday, February 4, 2021
Location: 42.553143, -
73.675278

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Turning Movement Data

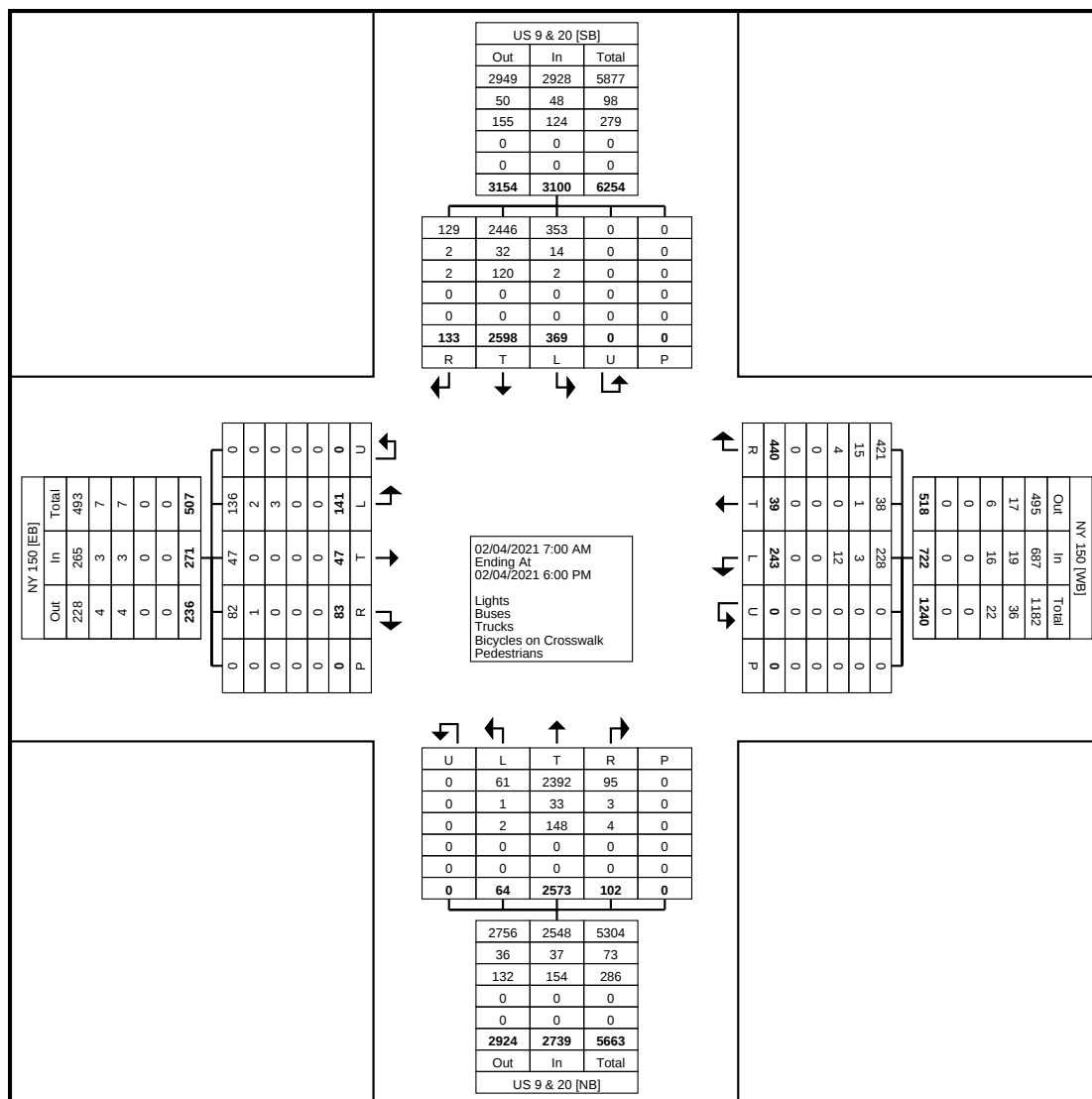
Start Time	NY 150							NY 150							US 9 & 20							US 9 & 20							Int. Total
	Eastbound							Westbound							Northbound							Southbound							
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	13	2	4	5	0	0	24	19	3	24	22	0	0	68	3	147	3	0	0	0	153	6	131	1	0	0	0	138	383
7:15 AM	9	1	0	3	0	0	13	20	1	22	14	0	0	57	1	188	1	1	0	0	191	8	151	4	1	0	0	164	425
7:30 AM	15	3	4	4	0	0	26	27	0	18	20	0	0	65	5	213	0	3	0	0	221	13	106	1	0	0	0	120	432
7:45 AM	8	3	2	3	0	0	16	19	2	18	19	0	0	58	2	180	3	4	0	0	189	17	104	3	1	0	0	125	388
Hourly Total	45	9	10	15	0	0	79	85	6	82	75	0	0	248	11	728	7	8	0	0	754	44	492	9	2	0	0	547	1628
8:00 AM	11	2	3	1	0	0	17	18	2	10	17	0	0	47	1	175	6	2	0	0	184	14	126	6	0	0	0	146	394
8:15 AM	7	3	2	2	0	0	14	19	4	15	15	0	0	53	3	161	6	3	0	0	173	11	98	3	0	0	0	112	352
8:30 AM	9	2	2	8	0	0	21	16	2	13	14	0	0	45	3	166	4	1	0	0	174	10	108	3	0	0	0	121	361
8:45 AM	7	3	2	0	0	0	12	17	2	12	11	0	0	42	6	162	7	0	0	0	175	4	102	0	1	0	0	107	336
Hourly Total	34	10	9	11	0	0	64	70	10	50	57	0	0	187	13	664	23	6	0	0	706	39	434	12	1	0	0	486	1443
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	10	1	5	2	0	0	18	18	4	19	10	0	0	51	7	176	3	1	0	0	187	33	192	12	3	0	0	240	496
4:15 PM	11	6	1	2	0	0	20	12	3	11	18	0	0	44	2	158	7	2	0	0	169	37	229	24	4	0	0	294	527
4:30 PM	5	3	4	2	0	0	14	10	5	10	11	0	0	36	3	157	13	1	0	0	174	42	199	9	2	0	0	252	476
4:45 PM	5	5	1	5	0	0	16	10	5	8	15	0	0	38	6	178	6	0	0	0	190	29	240	12	3	0	0	284	528
Hourly Total	31	15	11	11	0	0	68	50	17	48	54	0	0	169	18	669	29	4	0	0	720	141	860	57	12	0	0	1070	2027
5:00 PM	9	5	1	2	0	0	17	13	3	9	11	0	0	36	6	160	5	1	0	0	172	49	215	11	2	0	0	277	502
5:15 PM	8	1	0	3	0	0	12	11	0	9	12	0	0	32	8	129	3	0	0	0	140	40	232	7	1	0	0	280	464
5:30 PM	5	6	2	2	0	0	15	6	2	8	12	0	0	28	4	119													

Schodack, NY

Thursday, February 4, 2021
Location: 42.553143, -
73.675278

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9/20 & NY 150
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 2



Turning Movement Data Plot



Thursday, February 4, 2021
Location: 42.553143, -
73.675278

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9/20 & NY 150
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 3

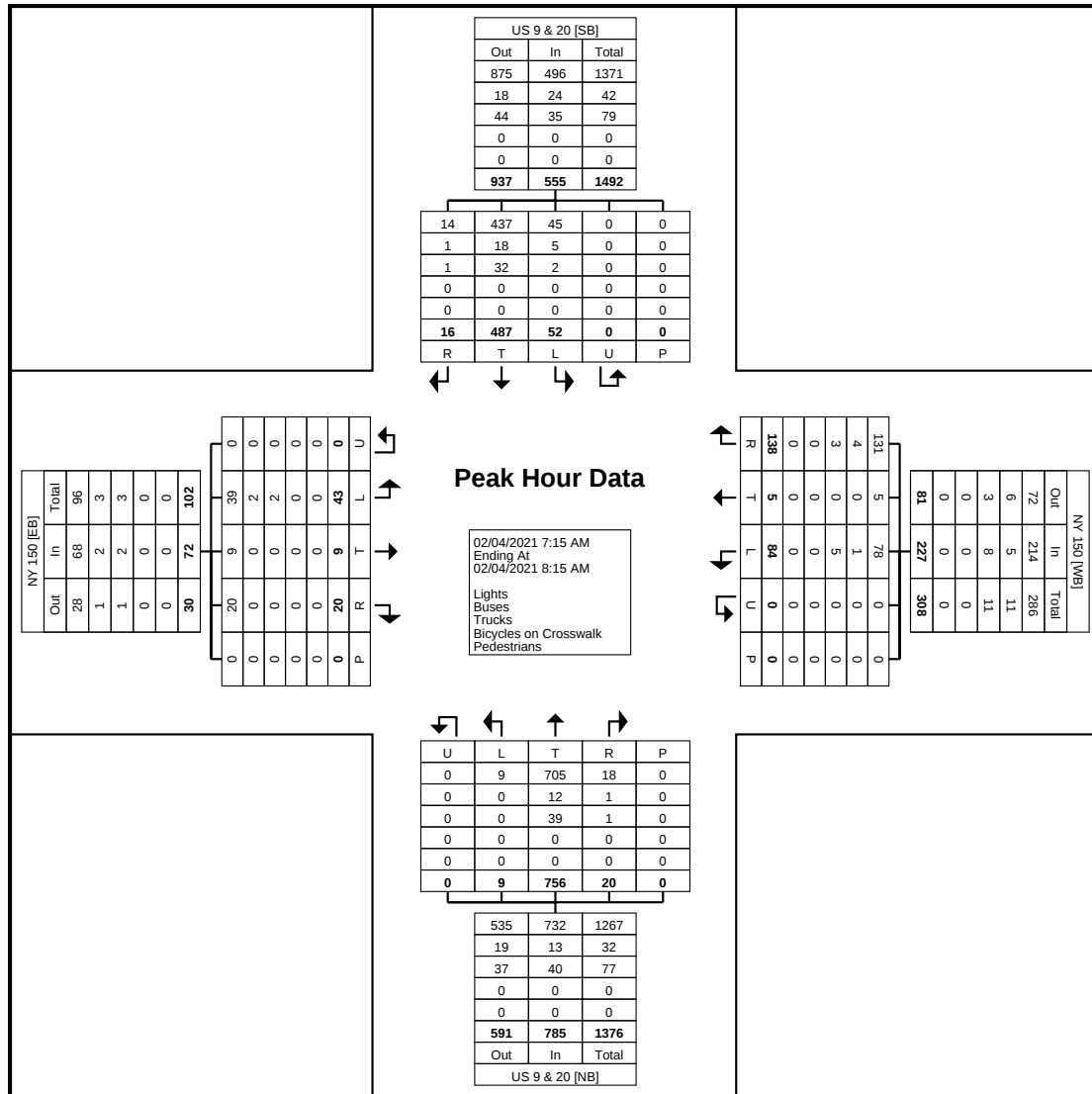
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Schodack, NY

Thursday, February 4, 2021
Location: 42.553143, -
73.675278

Coatesville, Pennsylvania, United States 19320
610-466-1469
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Count Name: US 9/20 & NY 150
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)



Thursday, February 4, 2021
Location: 42.553143, -
73.675278

Count Name: US 9/20 & NY 150
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 5

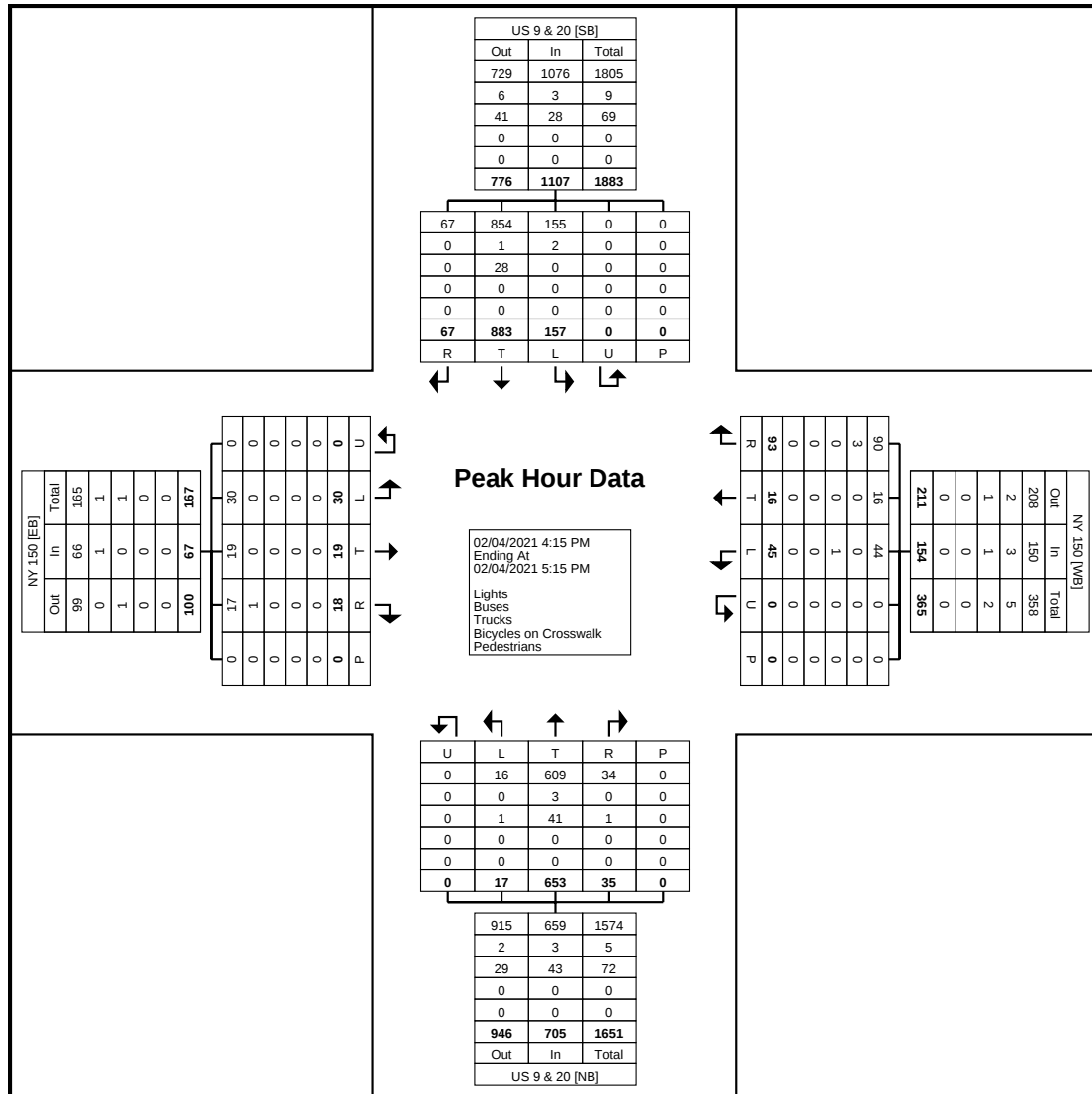
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Schodack, NY

Thursday, February 4, 2021
Location: 42.553143, -
73.675278

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9/20 & NY 150
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 6



Turning Movement Peak Hour Data Plot (4:15 PM)

US 9 & US 20 - TMC

Thu Feb 4, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9 & 20 Southbound						SB 9 to EB 20 Southwestbound				US 20 Westbound					
Time	R	T	L	U	App	Ped*	HL	App	Ped*		R	T	L	U	App	Ped*
2021-02-04 7:00AM	0	112	35	0	147	0	2	2	-		90	0	0	0	90	0
7:15AM	0	112	59	0	171	0	3	3	-		135	0	0	0	135	0
7:30AM	0	92	63	0	155	0	4	4	-		131	0	0	0	131	0
7:45AM	1	56	63	0	120	0	4	4	-		125	0	0	0	125	0
Hourly Total	1	372	220	0	593	0	13	13	-		481	0	0	0	481	0
8:00AM	0	77	55	0	132	0	2	2	-		110	1	0	0	111	0
8:15AM	0	58	60	0	118	0	1	1	-		93	0	0	0	93	0
8:30AM	0	53	74	0	127	0	1	1	-		112	0	0	0	112	0
8:45AM	0	50	58	0	108	0	7	7	-		111	0	0	0	111	0
Hourly Total	0	238	247	0	485	0	11	11	-		426	1	0	0	427	0
4:00PM	0	102	121	0	223	0	7	7	-		116	0	0	0	116	0
4:15PM	0	103	136	0	239	0	6	6	-		85	0	0	0	85	0
4:30PM	0	98	116	0	214	0	4	4	-		79	0	0	0	79	0
4:45PM	0	99	134	0	233	0	8	8	-		110	0	0	0	110	0
Hourly Total	0	402	507	0	909	0	25	25	-		390	0	0	0	390	0
5:00PM	0	106	123	0	229	0	10	10	-		89	0	0	0	89	0
5:15PM	0	87	146	0	233	0	8	8	-		78	0	0	0	78	0
5:30PM	0	89	99	0	188	0	7	7	-		59	0	0	0	59	0
5:45PM	0	89	99	0	188	0	6	6	-		60	0	0	0	60	0
Hourly Total	0	371	467	0	838	0	31	31	-		286	0	0	0	286	0
Total	1	1383	1441	0	2825	0	80	80	-		1583	1	0	0	1584	0
% Approach	0%	49.0%	51.0%	0%	-	-	100%	-	-		99.9%	0.1%	0%	0%	-	-
% Total	0%	23.4%	24.3%	0%	47.7%	-	1.4%	1.4%	-		26.7%	0%	0%	0%	26.8%	-
Lights	1	1309	1355	0	2665	-	70	70	-		1485	1	0	0	1486	-
% Lights	100%	94.6%	94.0%	0%	94.3%	-	87.5%	87.5%	-		93.8%	100%	0%	0%	93.8%	-
Articulated Trucks and Single-Unit Trucks	0	58	69	0	127	-	10	10	-		76	0	0	0	76	-
% Articulated Trucks and Single-Unit Trucks	0%	4.2%	4.8%	0%	4.5%	-	12.5%	12.5%	-		4.8%	0%	0%	0%	4.8%	-
Buses	0	16	17	0	33	-	0	0	-		22	0	0	0	22	-
% Buses	0%	1.2%	1.2%	0%	1.2%	-	0%	0%	-		1.4%	0%	0%	0%	1.4%	-
Pedestrians	-	-	-	-	-	0	-	-	0		-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	0		-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

US 9 & US 20 - TMC

Thu Feb 4, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9 Northbound						US 20 WB to US 9 SB Northeastbound				West Eastbound						
Time	R	T	L	U	App	Ped*	HR	App	Ped*		R	T	L	U	App	Ped*	Int
2021-02-04 7:00AM	0	74	1	0	75	0	2	2	-		0	0	0	0	0	0	316
7:15AM	1	80	1	0	82	0	8	8	-		3	0	0	0	3	0	402
7:30AM	0	101	0	0	101	0	3	3	-		1	0	0	0	1	1	395
7:45AM	0	81	4	0	85	0	6	6	-		2	0	0	0	2	1	342
Hourly Total	1	336	6	0	343	0	19	19	-		6	0	0	0	6	2	1455
8:00AM	0	85	1	0	86	0	5	5	-		4	0	0	0	4	0	340
8:15AM	0	82	3	0	85	0	2	2	-		0	0	0	0	0	0	299
8:30AM	0	75	0	0	75	0	5	5	-		1	0	0	0	1	0	321
8:45AM	0	59	1	0	60	0	3	3	-		7	0	0	0	7	0	296
Hourly Total	0	301	5	0	306	0	15	15	-		12	0	0	0	12	0	1256
4:00PM	0	85	1	0	86	0	5	5	-		3	0	0	0	3	0	440
4:15PM	0	89	0	0	89	0	2	2	-		5	0	0	0	5	0	426
4:30PM	0	96	1	0	97	0	2	2	-		6	0	0	0	6	0	402
4:45PM	0	113	1	0	114	0	5	5	-		4	0	0	0	4	0	474
Hourly Total	0	383	3	0	386	0	14	14	-		18	0	0	0	18	0	1742
5:00PM	0	77	3	0	80	0	8	8	-		3	0	0	0	3	1	419
5:15PM	0	70	1	0	71	0	4	4	-		5	0	0	0	5	2	399
5:30PM	0	61	0	0	61	0	3	3	-		2	0	0	0	2	0	320
5:45PM	0	66	0	0	66	0	5	5	-		3	0	0	0	3	0	328
Hourly Total	0	274	4	0	278	0	20	20	-		13	0	0	0	13	3	1466
Total	1	1294	18	0	1313	0	68	68	-		49	0	0	0	49	5	5919
% Approach	0.1%	98.6%	1.4%	0%	-	-	100%	-	-		100%	0%	0%	0%	-	-	-
% Total	0%	21.9%	0.3%	0%	22.2%	-	1.1%	1.1%	-		0.8%	0%	0%	0%	0.8%	-	-
Lights	1	1182	18	0	1201	-	59	59	-		49	0	0	0	49	-	5530
% Lights	100%	91.3%	100%	0%	91.5%	-	86.8%	86.8%	-		100%	0%	0%	0%	100%	-	93.4%
Articulated Trucks and Single-Unit Trucks	0	96	0	0	96	-	7	7	-		0	0	0	0	0	-	316
% Articulated Trucks and Single-Unit Trucks	0%	7.4%	0%	0%	7.3%	-	10.3%	10.3%	-		0%	0%	0%	0%	0%	-	5.3%
Buses	0	16	0	0	16	-	2	2	-		0	0	0	0	0	-	73
% Buses	0%	1.2%	0%	0%	1.2%	-	2.9%	2.9%	-		0%	0%	0%	0%	0%	-	1.2%
Pedestrians	-	-	-	-	-	0	-	-	0		-	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	-	-	-	-		-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	0		-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-		-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

US 9 & US 20 - TMC

Thu Feb 4, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] US 9 & 20

Total: 5702

In: 2825

Out: 2877

1

1383

1441

[NE] SB 9 to EB 20
In: 80
Total: 80
Out: 0

[W] West

Total: 69

In: 49 Out: 20

3
49
2

1583

1

Out: 1522 In: 1584

Total: 3106

[E] US 20

[SW] US 20 WB to US 9 SB
Out: 0
Total: 68
In: 68

68

18

1294

1

Out: 1500 In: 1313

Total: 2813

[S] US 9

US 9 & US 20 - TMC

Thu Feb 4, 2021

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9 & 20 Southbound						SB 9 to EB 20 Southwestbound				US 20 Westbound					
Time	R	T	L	U	App	Ped*	HL	App	Ped*		R	T	L	U	App	Ped*
2021-02-04 7:15AM	0	112	59	0	171	0	3	3	-		135	0	0	0	135	0
7:30AM	0	92	63	0	155	0	4	4	-		131	0	0	0	131	0
7:45AM	1	56	63	0	120	0	4	4	-		125	0	0	0	125	0
8:00AM	0	77	55	0	132	0	2	2	-		110	1	0	0	111	0
Total	1	337	240	0	578	0	13	13	-		501	1	0	0	502	0
% Approach	0.2%	58.3%	41.5%	0%	-	-	100%	-	-		99.8%	0.2%	0%	0%	-	-
% Total	0.1%	22.8%	16.2%	0%	39.1%	-	0.9%	0.9%	-		33.9%	0.1%	0%	0%	33.9%	-
PHF	0.250	0.752	0.952	-	0.845	-	0.813	0.813	-		0.928	0.250	-	-	0.930	-
Lights	1	314	213	0	528	-	10	10	-		473	1	0	0	474	-
% Lights	100%	93.2%	88.8%	0%	91.3%	-	76.9%	76.9%	-		94.4%	100%	0%	0%	94.4%	-
Articulated Trucks and Single-Unit Trucks	0	14	20	0	34	-	3	3	-		18	0	0	0	18	-
% Articulated Trucks and Single-Unit Trucks	0%	4.2%	8.3%	0%	5.9%	-	23.1%	23.1%	-		3.6%	0%	0%	0%	3.6%	-
Buses	0	9	7	0	16	-	0	0	-		10	0	0	0	10	-
% Buses	0%	2.7%	2.9%	0%	2.8%	-	0%	0%	-		2.0%	0%	0%	0%	2.0%	-
Pedestrians	-	-	-	-	-	0	-	-	0		-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	0		-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

US 9 & US 20 - TMC

Thu Feb 4, 2021

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9 Northbound						US 20 WB to US 9 SB Northeastbound				West Eastbound						
Time	R	T	L	U	App	Ped*	HR	App	Ped*		R	T	L	U	App	Ped*	Int
2021-02-04 7:15AM	1	80	1	0	82	0	8	8	-		3	0	0	0	3	0	402
7:30AM	0	101	0	0	101	0	3	3	-		1	0	0	0	1	1	395
7:45AM	0	81	4	0	85	0	6	6	-		2	0	0	0	2	1	342
8:00AM	0	85	1	0	86	0	5	5	-		4	0	0	0	4	0	340
Total	1	347	6	0	354	0	22	22	-		10	0	0	0	10	2	1479
% Approach	0.3%	98.0%	1.7%	0%	-	-	100%	-	-		100%	0%	0%	0%	-	-	-
% Total	0.1%	23.5%	0.4%	0%	23.9%	-	1.5%	1.5%	-		0.7%	0%	0%	0%	0.7%	-	-
PHF	0.250	0.859	0.375	-	0.876	-	0.688	0.688	-		0.625	-	-	-	0.625	-	0.920
Lights	1	310	6	0	317	-	18	18	-		10	0	0	0	10	-	1357
% Lights	100%	89.3%	100%	0%	89.5%	-	81.8%	81.8%	-		100%	0%	0%	0%	100%	-	91.8%
Articulated Trucks and Single-Unit Trucks	0	30	0	0	30	-	3	3	-		0	0	0	0	0	-	88
% Articulated Trucks and Single-Unit Trucks	0%	8.6%	0%	0%	8.5%	-	13.6%	13.6%	-		0%	0%	0%	0%	0%	-	5.9%
Buses	0	7	0	0	7	-	1	1	-		0	0	0	0	0	-	34
% Buses	0%	2.0%	0%	0%	2.0%	-	4.5%	4.5%	-		0%	0%	0%	0%	0%	-	2.3%
Pedestrians	-	-	-	-	-	0	-	-	0		-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-		-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	0		-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-		-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

US 9 & US 20 - TMC

Thu Feb 4, 2021

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

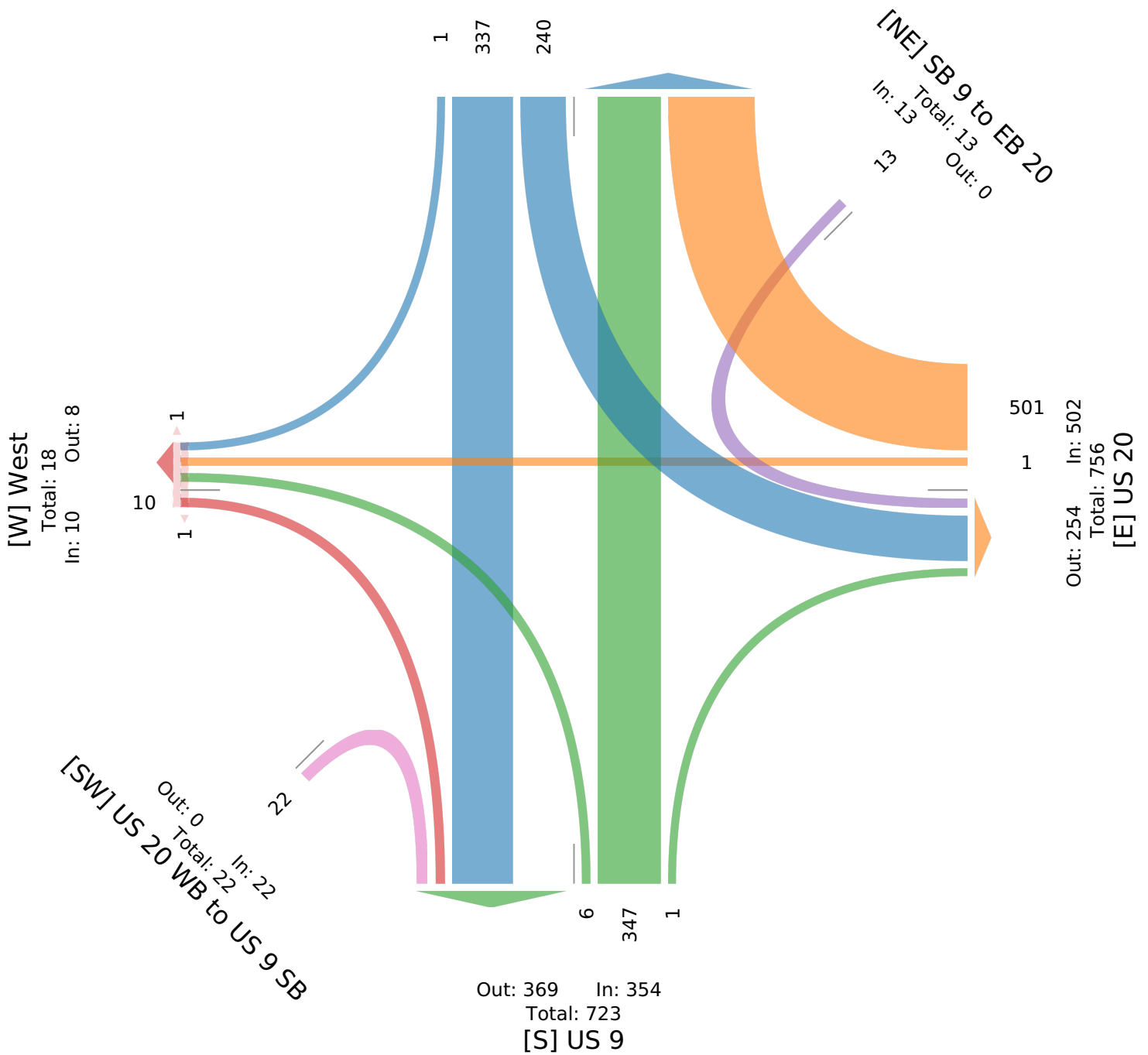
184 Baker Road,
Coatesville, PA, 19320, US

[N] US 9 & 20

Total: 1426

In: 578

Out: 848



US 9 & US 20 - TMC

Thu Feb 4, 2021

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9 & 20 Southbound						SB 9 to EB 20 Southwestbound			US 20 Westbound					
Time	R	T	L	U	App	Ped*	HL	App	Ped*	R	T	L	U	App	Ped*
2021-02-04 4:00PM	0	102	121	0	223	0	7	7	-	116	0	0	0	116	0
4:15PM	0	103	136	0	239	0	6	6	-	85	0	0	0	85	0
4:30PM	0	98	116	0	214	0	4	4	-	79	0	0	0	79	0
4:45PM	0	99	134	0	233	0	8	8	-	110	0	0	0	110	0
Total	0	402	507	0	909	0	25	25	-	390	0	0	0	390	0
% Approach	0%	44.2%	55.8%	0%	-	-	100%	-	-	100%	0%	0%	0%	-	-
% Total	0%	23.1%	29.1%	0%	52.2%	-	1.4%	1.4%	-	22.4%	0%	0%	0%	22.4%	-
PHF	-	0.976	0.932	-	0.951	-	0.781	0.781	-	0.841	-	-	-	0.841	-
Lights	0	390	495	0	885	-	25	25	-	357	0	0	0	357	-
% Lights	0%	97.0%	97.6%	0%	97.4%	-	100%	100%	-	91.5%	0%	0%	0%	91.5%	-
Articulated Trucks and Single-Unit Trucks	0	11	11	0	22	-	0	0	-	25	0	0	0	25	-
% Articulated Trucks and Single-Unit Trucks	0%	2.7%	2.2%	0%	2.4%	-	0%	0%	-	6.4%	0%	0%	0%	6.4%	-
Buses	0	1	1	0	2	-	0	0	-	8	0	0	0	8	-
% Buses	0%	0.2%	0.2%	0%	0.2%	-	0%	0%	-	2.1%	0%	0%	0%	2.1%	-
Pedestrians	-	-	-	-	-	0	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

US 9 & US 20 - TMC

Thu Feb 4, 2021

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9 Northbound							US 20 WB to US 9 SB Northeastbound				West Eastbound							
Time	R	T	L	U	App	Ped*		HR	App	Ped*		R	T	L	U	App	Ped*		Int
2021-02-04 4:00PM	0	85	1	0	86	0		5	5	-		3	0	0	0	3	0		440
4:15PM	0	89	0	0	89	0		2	2	-		5	0	0	0	5	0		426
4:30PM	0	96	1	0	97	0		2	2	-		6	0	0	0	6	0		402
4:45PM	0	113	1	0	114	0		5	5	-		4	0	0	0	4	0		474
Total	0	383	3	0	386	0		14	14	-		18	0	0	0	18	0		1742
% Approach	0%	99.2%	0.8%	0%	-	-		100%	-	-		100%	0%	0%	0%	-	-		-
% Total	0%	22.0%	0.2%	0%	22.2%	-		0.8%	0.8%	-		1.0%	0%	0%	0%	1.0%	-		-
PHF	-	0.847	0.750	-	0.846	-		0.700	0.700	-		0.750	-	-	-	0.750	-		0.919
Lights	0	358	3	0	361	-		14	14	-		18	0	0	0	18	-		1660
% Lights	0%	93.5%	100%	0%	93.5%	-		100%	100%	-		100%	0%	0%	0%	100%	-		95.3%
Articulated Trucks and Single-Unit Trucks	0	24	0	0	24	-		0	0	-		0	0	0	0	0	-		71
% Articulated Trucks and Single-Unit Trucks	0%	6.3%	0%	0%	6.2%	-		0%	0%	-		0%	0%	0%	0%	0%	-		4.1%
Buses	0	1	0	0	1	-		0	0	-		0	0	0	0	0	-		11
% Buses	0%	0.3%	0%	0%	0.3%	-		0%	0%	-		0%	0%	0%	0%	0%	-		0.6%
Pedestrians	-	-	-	-	-	0		-	-	0		-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-		-	-	-		-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	0		-	-	0		-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-		-	-	-		-	-	-	-	-	-		-

*Pedestrians and Bicycles on Crosswalk. HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

US 9 & US 20 - TMC

Thu Feb 4, 2021

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812167, Location: 42.548465, -73.671674, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] US 9 & 20

Total: 1682

In: 909

Out: 773

402

507

[NE] SB 9 to EB 20
In: 25
Total: 25
Out: 0

25

390

Out: 532 In: 390

Total: 922

[E] US 20

[W] West

Total: 21

In: 18 Out: 3

18

14

[SW] US 20 WB to US 9 SB
Out: 0
Total: 14
In: 14

3

383

Out: 434

In: 386

Total: 820

[S] US 9

Schodack, NY

Thursday, February 4, 2021
Location: 42.542619, -
73.675731

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 1

Turning Movement Data

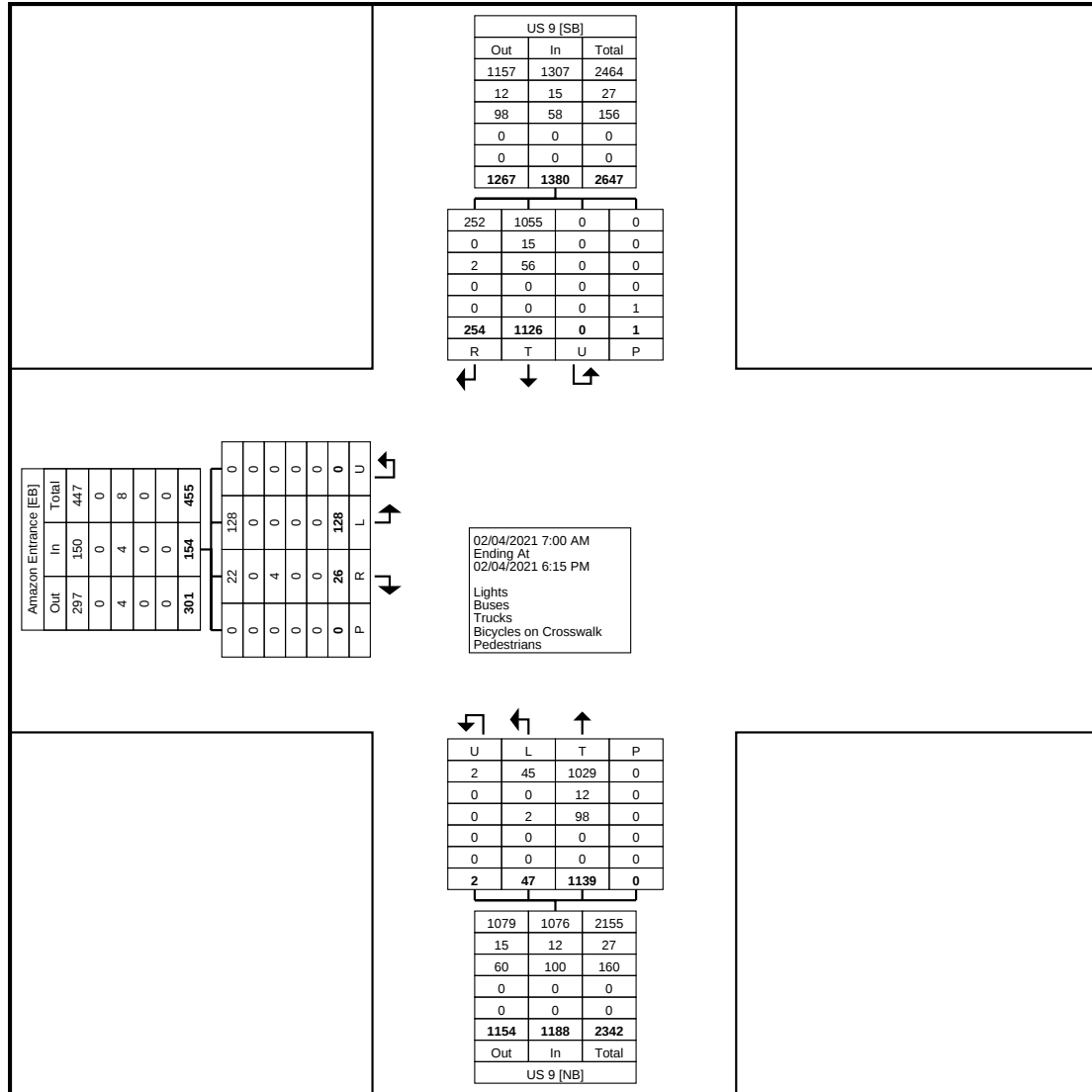
Start Time	Amazon Entrance Eastbound						US 9 Northbound					US 9 Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	3	1	1	0	0	5	7	67	0	0	74	59	40	3	0	0	102	181
7:15 AM	8	0	0	0	0	8	8	72	0	0	80	68	52	1	0	0	121	209
7:30 AM	3	0	2	0	0	5	3	92	0	0	95	74	20	0	0	0	94	194
7:45 AM	3	1	0	0	0	4	0	79	0	0	79	59	10	0	0	0	69	152
Hourly Total	17	2	3	0	0	22	18	310	0	0	328	260	122	4	0	0	386	736
8:00 AM	5	1	0	0	0	6	2	73	0	0	75	72	11	1	0	0	84	165
8:15 AM	3	1	0	0	0	4	1	78	0	0	79	44	7	0	0	0	51	134
8:30 AM	1	1	0	0	0	2	1	68	0	0	69	44	7	0	0	0	51	122
8:45 AM	1	0	0	0	0	1	0	55	0	0	55	45	3	0	0	0	48	104
Hourly Total	10	3	0	0	0	13	4	274	0	0	278	205	28	1	0	0	234	525
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	10	1	1	0	0	12	0	76	0	0	76	99	3	0	0	1	102	190
4:15 PM	5	0	0	0	0	5	1	77	0	0	78	91	3	1	0	0	95	178
4:30 PM	11	0	2	0	0	13	6	85	0	0	91	90	8	1	0	0	99	203
4:45 PM	29	2	2	0	0	33	2	77	0	0	79	78	8	5	0	0	91	203
Hourly Total	55	3	5	0	0	63	9	315	0	0	324	358	22	7	0	1	387	774
5:00 PM	17	1	0	0	0	18	5	65	1	0	71	81	21	3	0	0	105	194
5:15 PM	4	0	0	0	0	4	4	71	0	0	75	80	7	0	0	0	87	166
5:30 PM	3	1	0	0	0	4	3	57	1	0	61	78	15	1	0	0	94	159
5:45 PM	22	7	1	0	0	30	4	47	0	0	51	64	22	1	0	0	87	168
Hourly Total	46	9	1	0	0	56	16	240	2	0	258	303	65	5	0	0	373	687
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	128	17	9	0	0	154	47	1139	2	0	1188	1126	237	17	0	1	1380	2722
Approach %	83.1	11.0	5.8	0.0	-	-	4.0	95.9	0.2	-	-	81.6	17.2	1.2	0.0	-	-	-
Total %	4.7	0.6	0.3	0.0	-	5.7	1.7	41.8	0.1	-	43.6	41.4	8.7	0.6	0.0	-	50.7	-
Lights	128	15	7	0	-	150	45	1029	2	-	1076	1055	235	17	0	-	1307	2533
% Lights	100.0	88.2	77.8	-	-	97.4	95.7	90.3	100.0	-	90.6	93.7	99.2	100.0	-	-	94.7	93.1
Buses	0	0	0	0	-	0	0	12	0	-	12	15	0	0	0	-	15	27
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	1.1	0.0	-	1.0	1.3	0.0	0.0	-	-	1.1	1.0
Trucks	0	2	2	0	-	4	2	98	0	-	100	56	2	0	0	-	58	162
% Trucks	0.0	11.8	22.2	-	-	2.6	4.3	8.6	0.0	-	8.4	5.0	0.8	0.0	-	-	4.2	6.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Schodack, NY

Thursday, February 4, 2021
Location: 42.542619, -
73.675731

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 2



Turning Movement Data Plot

Schodack, NY

Thursday, February 4, 2021
Location: 42.542619, -
73.675731

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 3

Turning Movement Peak Hour Data (7:00 AM)

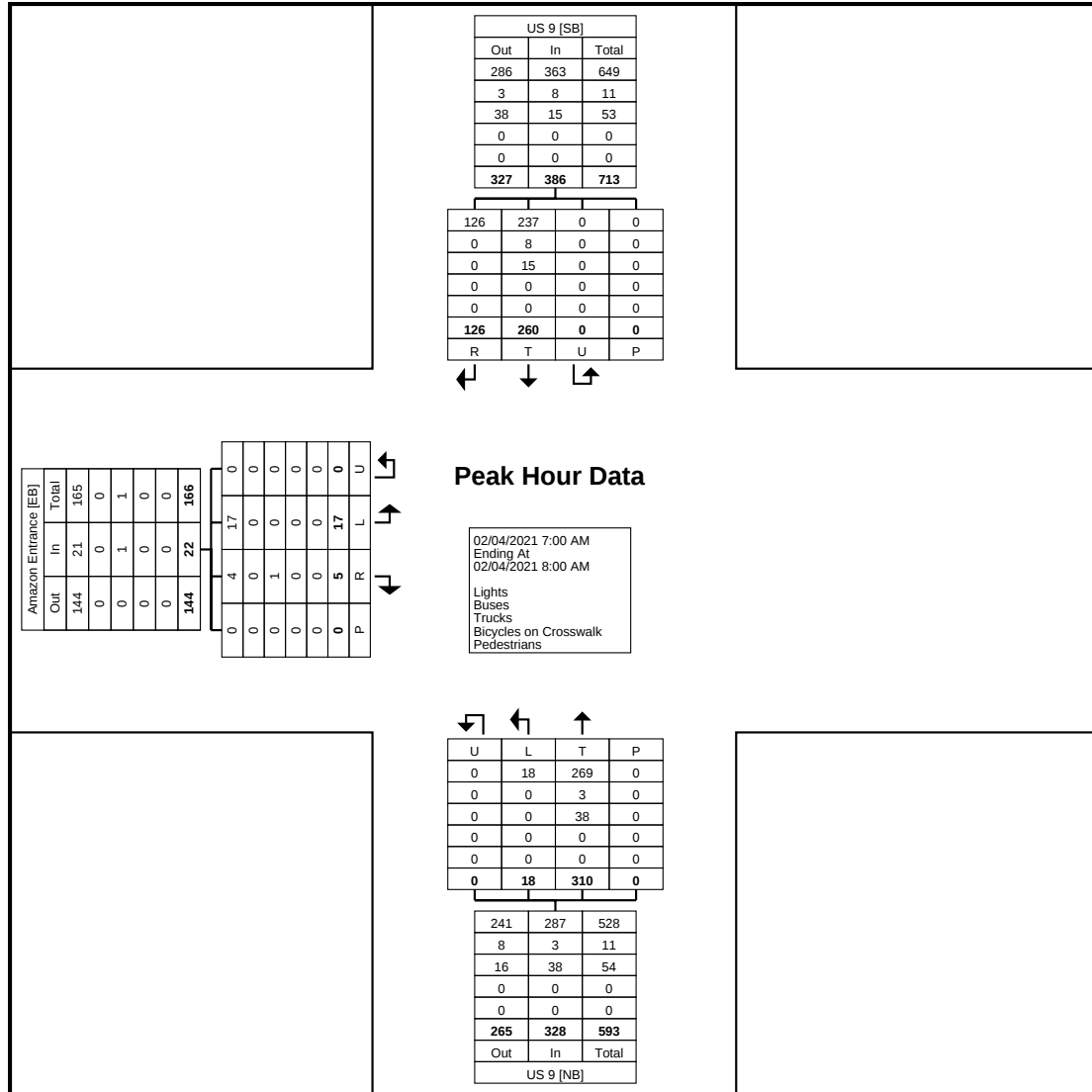
[illegible]

Schodack, NY

Thursday, February 4, 2021
Location: 42.542619, -
73.675731

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 4





Thursday, February 4, 2021
Location: 42.542619, -
73.675731

Count Name: US 9 & Amazon
Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 5

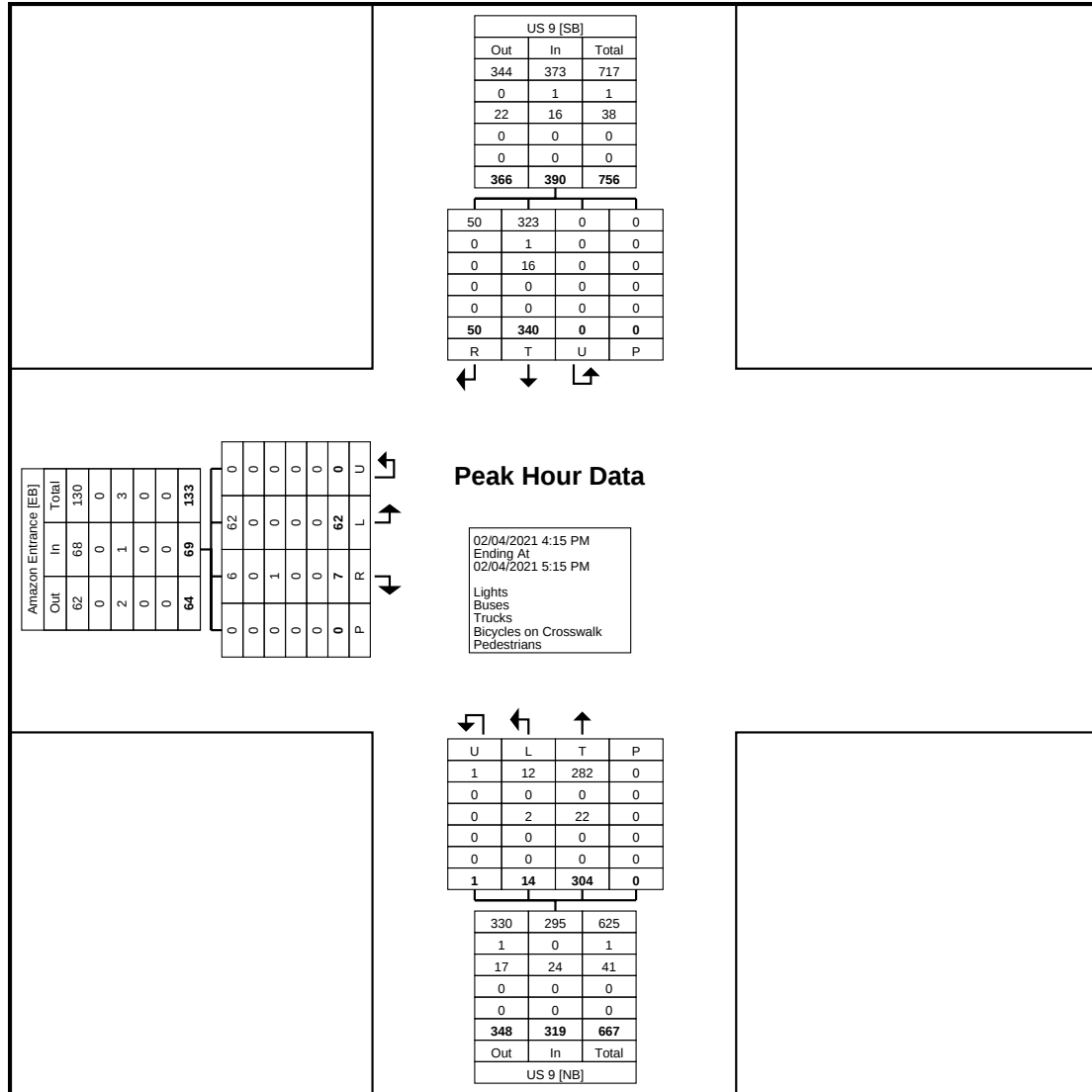
[illegible]

Schodack, NY

Thursday, February 4, 2021
Location: 42.542619, -
73.675731

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 6



Turning Movement Peak Hour Data Plot (4:15 PM)



Thursday, February 4, 2021
Location: 42.542214, -
73.676016

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Truck Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 1

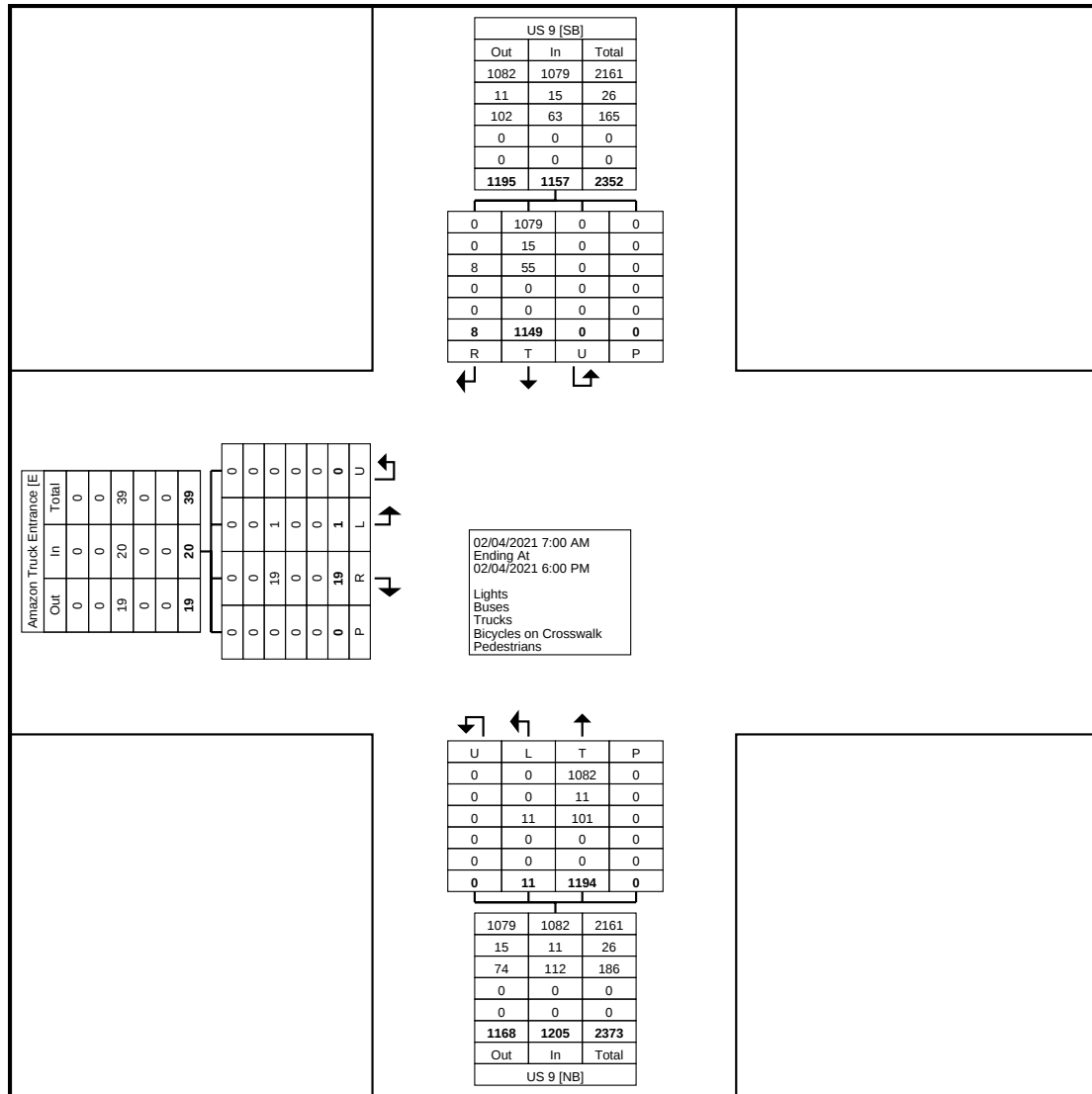
[illegible]

Schodack, NY

Thursday, February 4, 2021
Location: 42.542214, -
73.676016

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Truck Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 2



Turning Movement Data Plot



Thursday, February 4, 2021
Location: 42.542214, -
73.676016

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Truck Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 3

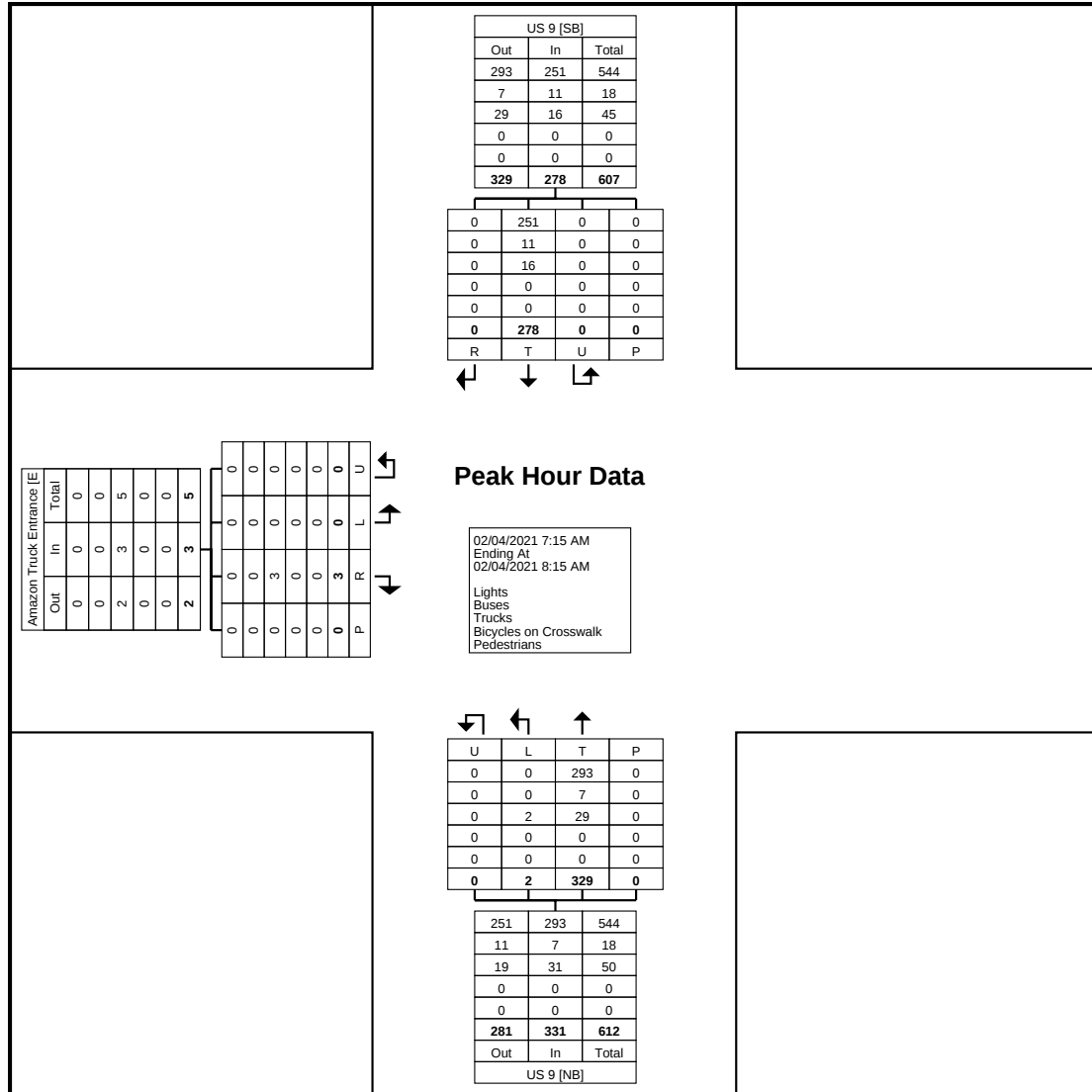
Start Time	Amazon Truck Entrance Eastbound					US 9 Northbound					US 9 Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
7:15 AM	0	1	0	0	1	2	79	0	0	81	70	0	0	0	70	152
7:30 AM	0	1	0	0	1	0	94	0	0	94	77	0	0	0	77	172
7:45 AM	0	0	0	0	0	0	80	0	0	80	57	0	0	0	57	137
8:00 AM	0	1	0	0	1	0	76	0	0	76	74	0	0	0	74	151
Total	0	3	0	0	3	2	329	0	0	331	278	0	0	0	278	612
Approach %	0.0	100.0	0.0	-	-	0.6	99.4	0.0	-	-	100.0	0.0	0.0	-	-	-
Total %	0.0	0.5	0.0	-	0.5	0.3	53.8	0.0	-	54.1	45.4	0.0	0.0	-	45.4	-
PHF	0.000	0.750	0.000	-	0.750	0.250	0.875	0.000	-	0.880	0.903	0.000	0.000	-	0.903	0.890
Lights	0	0	0	-	0	0	293	0	-	293	251	0	0	-	251	544
% Lights	-	0.0	-	-	0.0	0.0	89.1	-	-	88.5	90.3	-	-	-	90.3	88.9
Buses	0	0	0	-	0	0	7	0	-	7	11	0	0	-	11	18
% Buses	-	0.0	-	-	0.0	0.0	2.1	-	-	2.1	4.0	-	-	-	4.0	2.9
Trucks	0	3	0	-	3	2	29	0	-	31	16	0	0	-	16	50
% Trucks	-	100.0	-	-	100.0	100.0	8.8	-	-	9.4	5.8	-	-	-	5.8	8.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Schodack, NY

Thursday, February 4, 2021
Location: 42.542214, -
73.676016

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Truck Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)



Thursday, February 4, 2021
Location: 42.542214, -
73.676016

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Truck Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 5

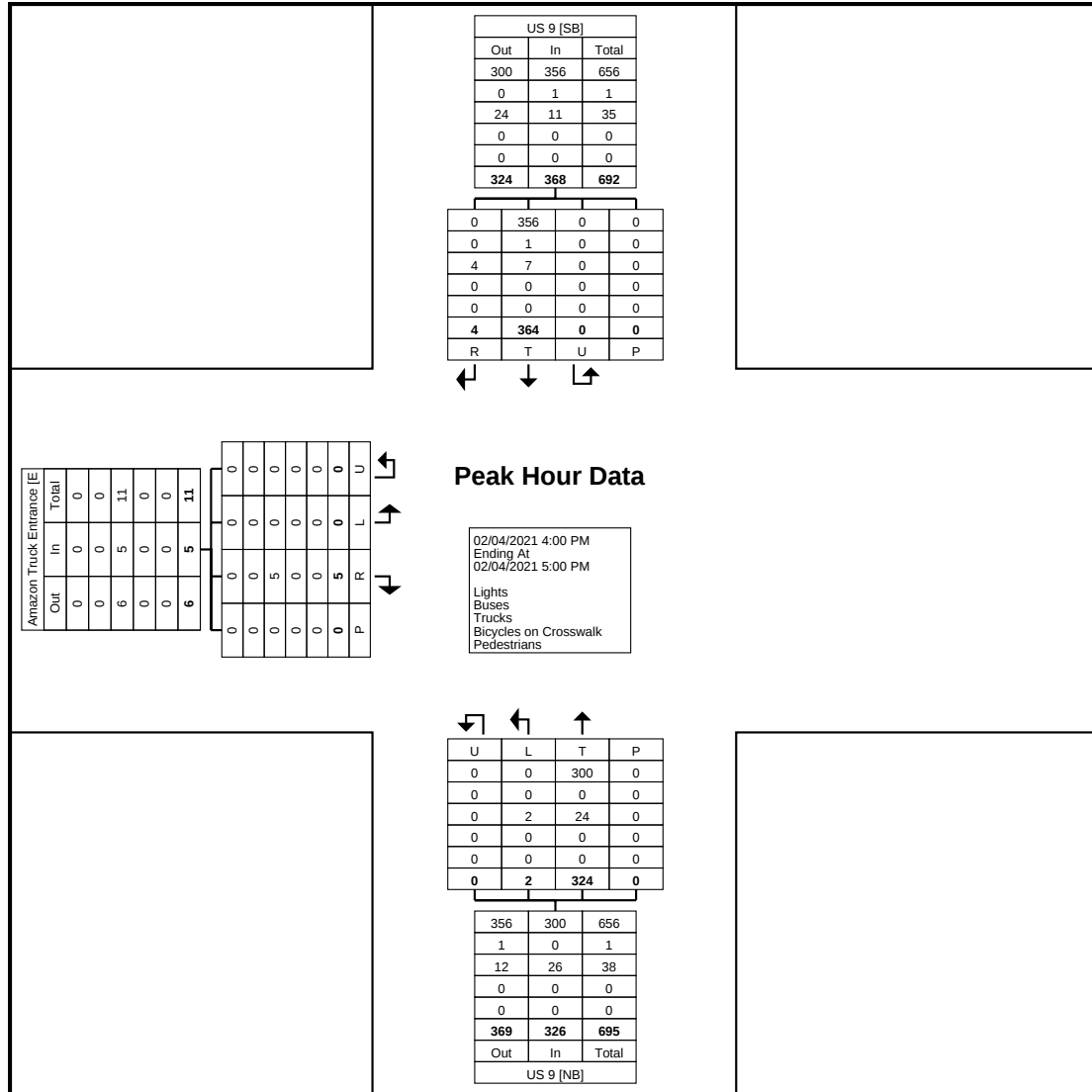
[illegible]

Schodack, NY

Thursday, February 4, 2021
Location: 42.542214, -
73.676016

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Amazon
Truck Entrance
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 6



US 9/20 & I90 Exit 11 WB Off Ramp - TMC

Thu Feb 4, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812172, Location: 42.556237, -73.678165, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9&20 Southbound					Northeast Southwestbound			US 9&20 Northbound					I90 Exit 11 WB Off Ramp Eastbound						
Time	T	HL	U	App	Ped*	U	App	Ped*	BR	T	U	App	Ped*	R	BL	L	U	App	Ped*	Int
2021-02-04 7:00AM	139	0	0	139	0	0	0	0	147	67	0	214	0	1	0	1	0	2	0	355
7:15AM	160	0	0	160	0	0	0	0	172	74	0	246	0	1	0	5	0	6	0	412
7:30AM	123	0	0	123	0	0	0	0	195	77	0	272	0	3	0	3	0	6	0	401
7:45AM	116	0	0	116	0	0	0	0	154	82	0	236	0	0	0	8	0	8	0	360
Hourly Total	538	0	0	538	0	0	0	0	668	300	0	968	0	5	0	17	0	22	0	1528
8:00AM	152	0	0	152	0	0	0	0	139	80	0	219	0	0	0	3	0	3	0	374
8:15AM	114	0	0	114	0	0	0	0	124	75	0	199	0	3	0	1	0	4	0	317
8:30AM	119	0	0	119	0	0	0	0	138	60	0	198	0	1	0	7	0	8	0	325
8:45AM	107	0	0	107	0	0	0	0	120	63	0	183	0	2	0	3	0	5	0	295
Hourly Total	492	0	0	492	0	0	0	0	521	278	0	799	0	6	0	14	0	20	0	1311
9:00AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00PM	253	0	0	253	0	0	0	0	124	100	0	224	0	4	0	5	0	9	0	486
4:15PM	299	0	0	299	0	0	0	0	117	79	0	196	0	3	0	11	0	14	0	509
4:30PM	263	0	0	263	0	0	0	0	106	74	0	180	0	3	0	6	0	9	0	452
4:45PM	291	0	0	291	0	0	0	0	123	97	0	220	0	3	0	9	0	12	0	523
Hourly Total	1106	0	0	1106	0	0	0	0	470	350	0	820	0	13	0	31	0	44	0	1970
5:00PM	278	0	0	278	0	0	0	0	122	67	0	189	0	2	0	3	0	5	0	472
5:15PM	276	0	0	276	0	0	0	0	87	70	0	157	0	3	0	1	0	4	0	437
5:30PM	209	0	0	209	0	0	0	0	75	67	0	142	0	4	1	6	0	11	0	362
5:45PM	220	0	0	220	0	0	0	0	76	46	0	122	0	3	0	7	0	10	0	352
Hourly Total	983	0	0	983	0	0	0	0	360	250	0	610	0	12	1	17	0	30	0	1623
6:00PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	3120	0	0	3120	0	0	0	0	2019	1178	0	3197	0	36	1	79	0	116	0	6433
% Approach	100%	0%	0%	-	-	0%	-	-	63.2%	36.8%	0%	-	-	31.0%	0.9%	68.1%	0%	-	-	-
% Total	48.5%	0%	0%	48.5%	-	0%	0%	-	31.4%	18.3%	0%	49.7%	-	0.6%	0%	1.2%	0%	1.8%	-	-
Lights	2946	0	0	2946	-	0	0	-	1882	1115	0	2997	-	34	1	74	0	109	-	6052
% Lights	94.4%	0%	0%	94.4%	-	0%	-	-	93.2%	94.7%	0%	93.7%	-	94.4%	100%	93.7%	0%	94.0%	-	94.1%
Articulated Trucks and Single-Unit Trucks	125	0	0	125	-	0	0	-	122	28	0	150	-	2	0	5	0	7	-	282
% Articulated Trucks and Single-Unit Trucks	4.0%	0%	0%	4.0%	-	0%	-	-	6.0%	2.4%	0%	4.7%	-	5.6%	0%	6.3%	0%	6.0%	-	4.4%
Buses	49	0	0	49	-	0	0	-	15	35	0	50	-	0	0	0	0	0	-	99
% Buses	1.6%	0%	0%	1.6%	-	0%	-	-	0.7%	3.0%	0%	1.6%	-	0%	0%	0%	0%	0%	-	1.5%
Pedestrians	-	-	-	-	0	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, L: Left, R: Right, T: Thru, U: U-Turn

US 9/20 & I90 Exit 11 WB Off Ramp - TMC

Thu Feb 4, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812172, Location: 42.556237, -73.678165, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] US 9&20

Total: 4377

In: 3120 Out: 1257

3120

[NE] Northeast
Total: 2020
In: 0 Out: 2020

[W] I90 Exit 11 WB Off Ramp

Total: 116
In: 116 Out: 0

79
1
36

Out: 3156

1178

2019

In: 3197

Total: 6353

[S] US 9&20

US 9/20 & I90 Exit 11 WB Off Ramp - TMC

Thu Feb 4, 2021

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812172, Location: 42.556237, -73.678165, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9&20 Southbound					Northeast Southwestbound			US 9&20 Northbound					I90 Exit 11 WB Off Ramp Eastbound						
Time	T	HL	U	App	Ped*	U	App	Ped*	BR	T	U	App	Ped*	R	BL	L	U	App	Ped*	Int
2021-02-04 7:15AM	160	0	0	160	0	0	0	0	172	74	0	246	0	1	0	5	0	6	0	412
7:30AM	123	0	0	123	0	0	0	0	195	77	0	272	0	3	0	3	0	6	0	401
7:45AM	116	0	0	116	0	0	0	0	154	82	0	236	0	0	0	8	0	8	0	360
8:00AM	152	0	0	152	0	0	0	0	139	80	0	219	0	0	0	3	0	3	0	374
Total	551	0	0	551	0	0	0	0	660	313	0	973	0	4	0	19	0	23	0	1547
% Approach	100%	0%	0%	-	-	0%	-	-	67.8%	32.2%	0%	-	-	17.4%	0%	82.6%	0%	-	-	-
% Total	35.6%	0%	0%	35.6%	-	0%	0%	-	42.7%	20.2%	0%	62.9%	-	0.3%	0%	1.2%	0%	1.5%	-	-
PHF	0.861	-	-	0.861	-	-	-	-	0.846	0.954	-	0.894	-	0.333	-	0.594	-	0.719	-	0.939
Lights	495	0	0	495	-	0	0	-	617	289	0	906	-	4	0	16	0	20	-	1421
% Lights	89.8%	0%	0%	89.8%	-	0%	-	-	93.5%	92.3%	0%	93.1%	-	100%	0%	84.2%	0%	87.0%	-	91.9%
Articulated Trucks and Single-Unit Trucks	32	0	0	32	-	0	0	-	36	11	0	47	-	0	0	3	0	3	-	82
% Articulated Trucks and Single-Unit Trucks	5.8%	0%	0%	5.8%	-	0%	-	-	5.5%	3.5%	0%	4.8%	-	0%	0%	15.8%	0%	13.0%	-	5.3%
Buses	24	0	0	24	-	0	0	-	7	13	0	20	-	0	0	0	0	0	-	44
% Buses	4.4%	0%	0%	4.4%	-	0%	-	-	1.1%	4.2%	0%	2.1%	-	0%	0%	0%	0%	0%	-	2.8%
Pedestrians	-	-	-	-	0	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, L: Left, R: Right, T: Thru, U: U-Turn

US 9/20 & I90 Exit 11 WB Off Ramp - TMC

Thu Feb 4, 2021

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812172, Location: 42.556237, -73.678165, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] US 9&20

Total: 883

In: 551 Out: 332

551

[NE] Northeast
Total: 660
In: 0 Out: 660

[W] I90 Exit 11 WB Off Ramp

Total: 23
In: 23 Out: 0

19
4

Out: 555

In: 973

Total: 1528

[S] US 9&20

313

660

US 9/20 & I90 Exit 11 WB Off Ramp - TMC

Thu Feb 4, 2021

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812172, Location: 42.556237, -73.678165, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	US 9&20 Southbound					Northeast Southwestbound			US 9&20 Northbound					I90 Exit 11 WB Off Ramp Eastbound						
Time	T	HL	U	App	Ped*	U	App	Ped*	BR	T	U	App	Ped*	R	BL	L	U	App	Ped*	Int
2021-02-04 4:00PM	253	0	0	253	0	0	0	0	124	100	0	224	0	4	0	5	0	9	0	486
4:15PM	299	0	0	299	0	0	0	0	117	79	0	196	0	3	0	11	0	14	0	509
4:30PM	263	0	0	263	0	0	0	0	106	74	0	180	0	3	0	6	0	9	0	452
4:45PM	291	0	0	291	0	0	0	0	123	97	0	220	0	3	0	9	0	12	0	523
Total	1106	0	0	1106	0	0	0	0	470	350	0	820	0	13	0	31	0	44	0	1970
% Approach	100%	0%	0%	-	-	0%	-	-	57.3%	42.7%	0%	-	-	29.5%	0%	70.5%	0%	-	-	-
% Total	56.1%	0%	0%	56.1%	-	0%	0%	-	23.9%	17.8%	0%	41.6%	-	0.7%	0%	1.6%	0%	2.2%	-	-
PHF	0.925	-	-	0.925	-	-	-	-	0.948	0.875	-	0.915	-	0.813	-	0.705	-	0.786	-	0.942
Lights	1078	0	0	1078	-	0	0	-	432	332	0	764	-	12	0	29	0	41	-	1883
% Lights	97.5%	0%	0%	97.5%	-	0%	-	-	91.9%	94.9%	0%	93.2%	-	92.3%	0%	93.5%	0%	93.2%	-	95.6%
Articulated Trucks and Single-Unit Trucks	24	0	0	24	-	0	0	-	36	5	0	41	-	1	0	2	0	3	-	68
% Articulated Trucks and Single-Unit Trucks	2.2%	0%	0%	2.2%	-	0%	-	-	7.7%	1.4%	0%	5.0%	-	7.7%	0%	6.5%	0%	6.8%	-	3.5%
Buses	4	0	0	4	-	0	0	-	2	13	0	15	-	0	0	0	0	0	-	19
% Buses	0.4%	0%	0%	0.4%	-	0%	-	-	0.4%	3.7%	0%	1.8%	-	0%	0%	0%	0%	0%	-	1.0%
Pedestrians	-	-	-	-	0	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, L: Left, R: Right, T: Thru, U: U-Turn

US 9/20 & I90 Exit 11 WB Off Ramp - TMC

Thu Feb 4, 2021

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 812172, Location: 42.556237, -73.678165, Site Code: Schodack, New York



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] US 9&20

Total: 1487

In: 1106 Out: 381

1106

[NE] Northeast
Total: 470
In: 0 Out: 470

[W] I90 Exit 11 WB Off Ramp

Total: 44
In: 44 Out: 0

31
13

Out: 1119 In: 820

Total: 1939

[S] US 9&20

350

470



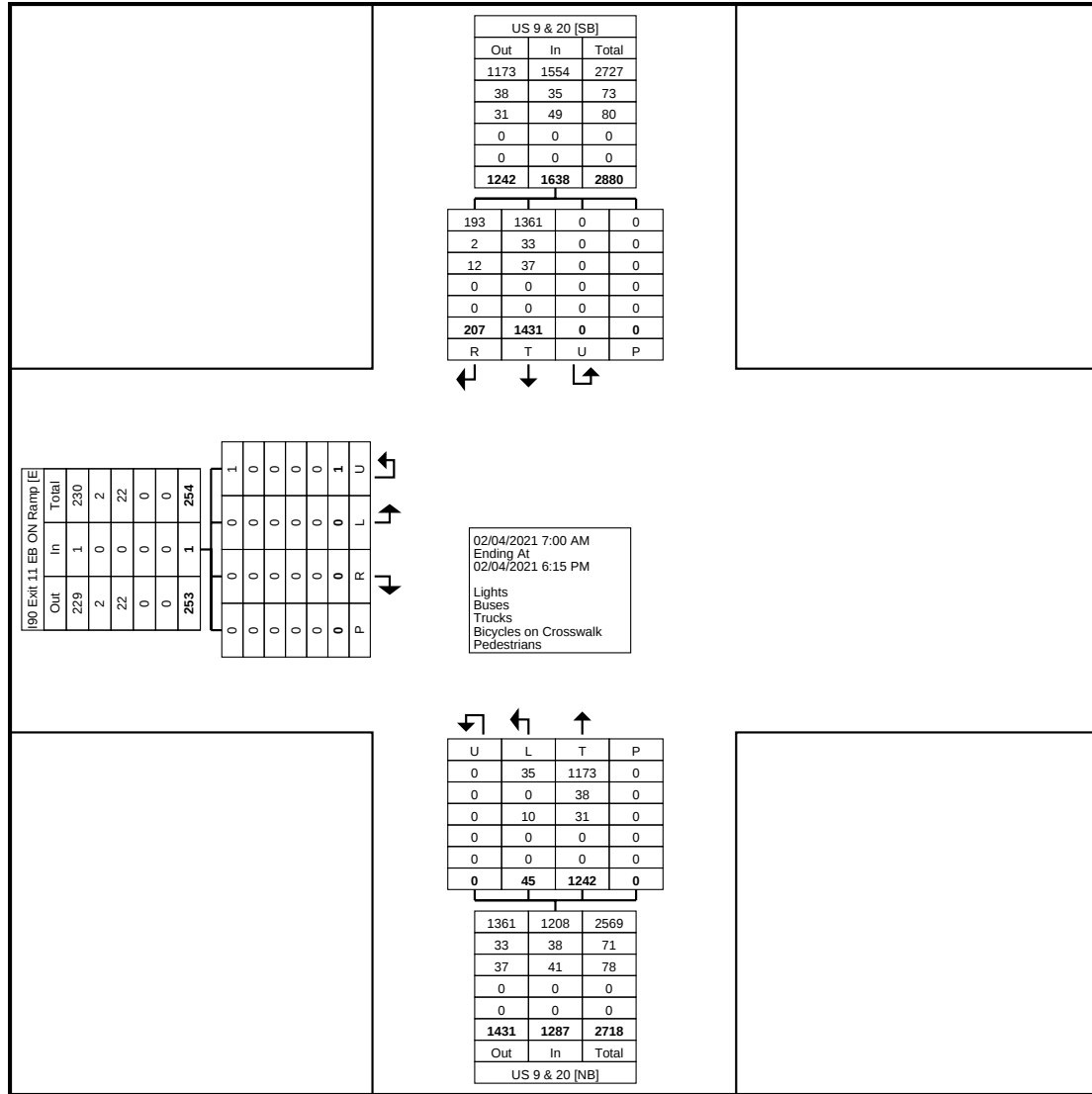
Thursday, February 4, 2021
Location: 42.56031, -73.680454

Serving Transportation Professionals Since 1995

Count Name: US 9/20 & I90 Exit
11 EB ON Ramp
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 1

Turning Movement Data

Start Time	I90 Exit 11 EB ON Ramp					US 9 & 20					US 9 & 20					Int. Total
	Eastbound					Northbound					Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	0	0	0	0	5	60	0	0	65	38	18	0	0	56	121
7:15 AM	0	0	0	0	0	2	75	0	0	77	55	11	0	0	66	143
7:30 AM	0	0	0	0	0	2	84	0	0	86	48	10	0	0	58	144
7:45 AM	0	0	1	0	1	4	82	0	0	86	52	9	0	0	61	148
Hourly Total	0	0	1	0	1	13	301	0	0	314	193	48	0	0	241	556
8:00 AM	0	0	0	0	0	3	85	0	0	88	70	4	0	0	74	162
8:15 AM	0	0	0	0	0	6	79	0	0	85	53	14	0	0	67	152
8:30 AM	0	0	0	0	0	2	70	0	0	72	53	4	0	0	57	129
8:45 AM	0	0	0	0	0	1	75	0	0	76	49	8	0	0	57	133
Hourly Total	0	0	0	0	0	12	309	0	0	321	225	30	0	0	255	576
9:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:00 PM	0	0	0	0	0	3	100	0	0	103	132	10	0	0	142	245
4:15 PM	0	0	0	0	0	3	83	0	0	86	164	21	0	0	185	271
4:30 PM	0	0	0	0	0	2	80	0	0	82	128	17	0	0	145	227
4:45 PM	0	0	0	0	0	1	102	0	0	103	117	19	0	0	136	239
Hourly Total	0	0	0	0	0	9	365	0	0	374	541	67	0	0	608	982
5:00 PM	0	0	0	0	0	3	68	0	0	71	148	18	0	0	166	237
5:15 PM	0	0	0	0	0	3	70	0	0	73	122	19	0	0	141	214
5:30 PM	0	0	0	0	0	3	74	0	0	77	101	18	0	0	119	196
5:45 PM	0	0	0	0	0	2	55	0	0	57	100	7	0	0	107	164
Hourly Total	0	0	0	0	0	11	267	0	0	278	471	62	0	0	533	811
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	1	0	1	45	1242	0	0	1287	1431	207	0	0	1638	2926
Approach %	0.0	0.0	100.0	-	-	3.5	96.5	0.0	-	-	87.4	12.6	0.0	-	-	-
Total %	0.0	0.0	0.0	-	0.0	1.5	42.4	0.0	-	44.0	48.9	7.1	0.0	-	56.0	-
Lights	0	0	1	-	1	35	1173	0	-	1208	1361	193	0	-	1554	2763
% Lights	-	-	100.0	-	100.0	77.8	94.4	-	-	93.9	95.1	93.2	-	-	94.9	94.4
Buses	0	0	0	-	0	0	38	0	-	38	33	2	0	-	35	73
% Buses	-	-	0.0	-	0.0	0.0	3.1	-	-	3.0	2.3	1.0	-	-	2.1	2.5
Trucks	0	0	0	-	0	10	31	0	-	41	37	12	0	-	49	90
% Trucks	-	-	0.0	-	0.0	22.2	2.5	-	-	3.2	2.6	5.8	-	-	3.0	3.1
Bicycles																



Turning Movement Data Plot

Schodack, NY

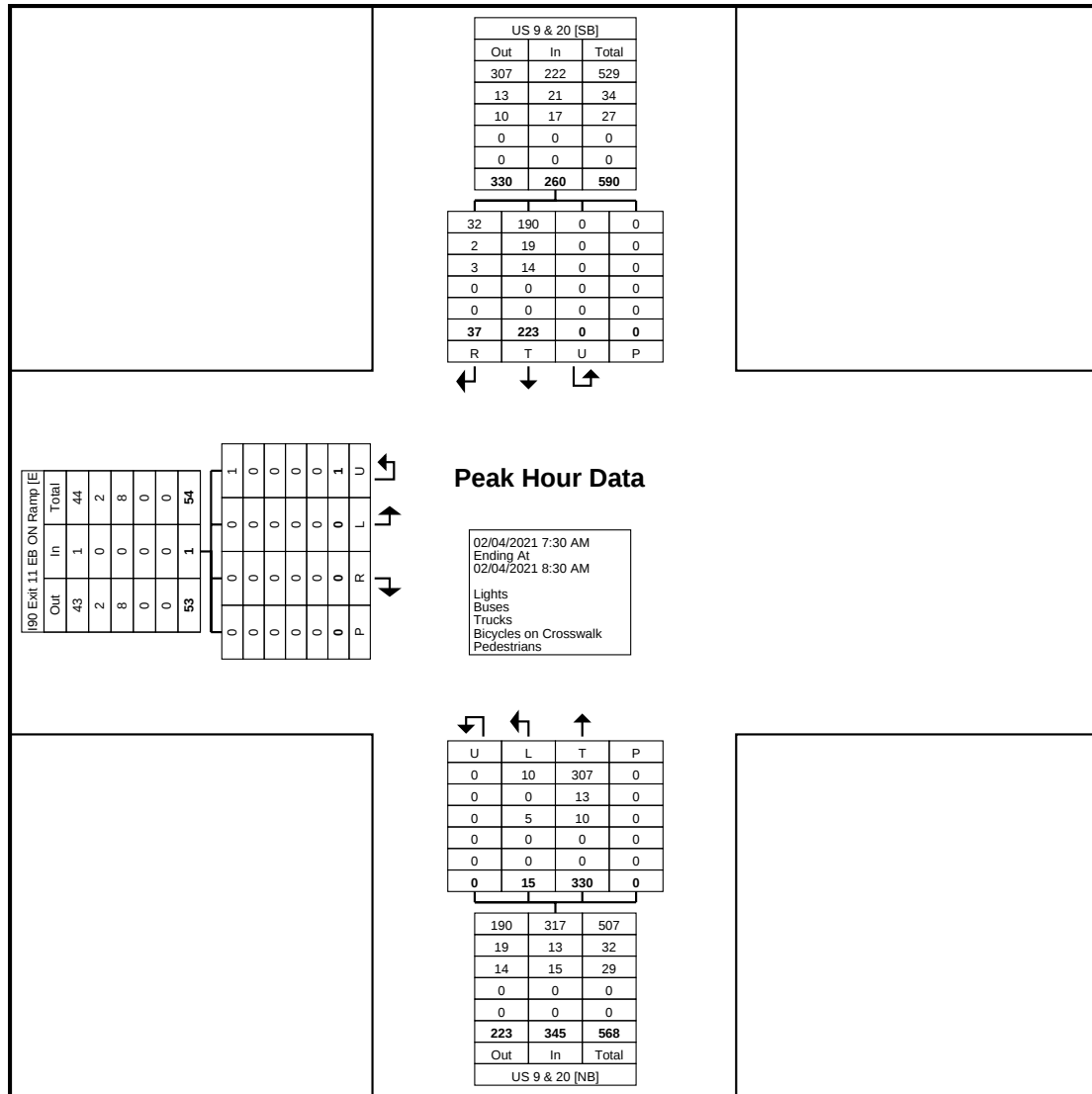
Thursday, February 4, 2021
Location: 42.56031, -73.680454

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9/20 & I90 Exit
11 EB ON Ramp
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

[illegible]



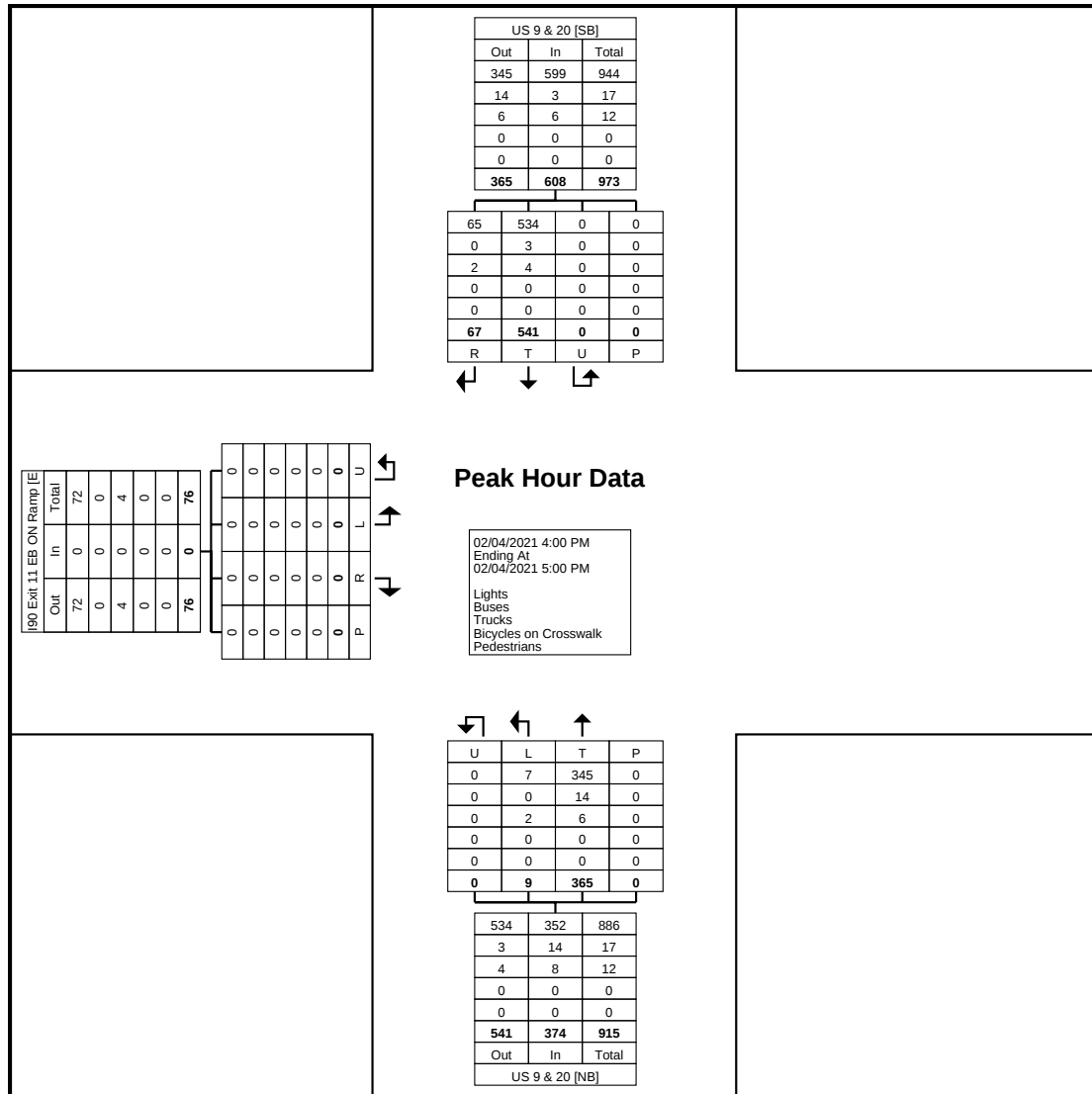
Turning Movement Peak Hour Data Plot (7:30 AM)



Thursday, February 4, 2021
Location: 42.56031, -73.680454

Count Name: US 9/20 & I90 Exit
11 EB ON Ramp
Site Code: Schodack, New York
Start Date: 02/04/2021
Page No: 5

[illegible]



Turning Movement Peak Hour Data Plot (4:00 PM)

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

EB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
02/03/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	0	24	15	0	3	0	0	0	0	0	0	0	0	42
19:00	0	22	5	0	1	0	0	0	0	0	0	0	0	28
20:00	0	15	7	0	0	0	0	0	0	0	0	0	0	22
21:00	0	16	3	0	0	0	0	0	0	0	0	0	0	19
22:00	0	7	1	0	1	0	0	0	0	0	0	0	0	9
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Day Total	0	87	31	0	5	0	0	0	0	0	0	0	0	123
Percent	0.0%	70.7%	25.2%	0.0%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.		18:00 24	18:00 15		18:00 3									18:00 42

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

EB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
02/04/21	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
05:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
06:00	0	9	4	1	1	0	0	0	1	0	0	0	0	16
07:00	0	21	7	1	0	1	0	0	0	0	0	0	0	30
08:00	0	21	12	2	2	0	0	0	1	0	0	0	0	38
09:00	0	20	8	0	4	0	0	0	0	0	0	0	0	32
10:00	0	28	11	0	0	1	0	0	0	0	0	0	0	40
11:00	0	26	10	0	2	1	0	0	1	0	0	0	0	40
12 PM	0	32	14	0	2	0	0	0	0	0	0	0	0	48
13:00	0	40	18	1	2	1	0	0	0	0	0	0	0	62
14:00	0	32	10	0	2	0	0	0	1	0	0	0	0	45
15:00	0	38	16	0	2	0	0	0	0	0	0	0	0	56
16:00	0	76	25	1	3	0	0	0	0	0	0	0	0	105
17:00	0	52	17	0	4	0	0	0	0	0	0	0	0	73
18:00	0	37	6	0	1	0	0	0	1	0	0	0	0	45
19:00	0	25	8	0	1	0	0	0	0	0	0	0	0	34
20:00	0	29	4	0	1	0	0	0	0	0	0	0	0	34
21:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
22:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
23:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
Day Total	0	516	179	6	27	4	0	0	5	0	0	0	0	737
Percent	0.0%	70.0%	24.3%	0.8%	3.7%	0.5%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak		10:00	08:00	08:00	09:00	07:00			06:00					10:00
Vol.		28	12	2	4	1			1					40
PM Peak		16:00	16:00	13:00	17:00	13:00			14:00					16:00
Vol.		76	25	1	4	1			1					105

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

EB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
02/05/21	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
05:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
06:00	0	8	1	0	0	1	0	0	0	0	0	0	0	10
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	0	15	2	0	0	1	0	0	0	0	0	0	0	18
Percent	0.0%	83.3%	11.1%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.		06:00	04:00			06:00								06:00
PM Peak Vol.		8	1			1								10
Grand Total	0	618	212	6	32	5	0	0	5	0	0	0	0	878
Percent	0.0%	70.4%	24.1%	0.7%	3.6%	0.6%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

WB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
02/03/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	0	28	13	0	3	0	0	0	0	0	0	0	0	44
19:00	0	18	4	0	0	0	0	0	0	0	0	0	0	22
20:00	0	9	6	0	0	0	0	0	0	0	0	0	0	15
21:00	0	13	2	0	1	0	0	0	0	0	0	0	0	16
22:00	0	4	4	0	1	0	0	0	0	0	0	0	0	9
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Day Total	0	74	29	0	5	0	0	0	0	0	0	0	0	108
Percent	0.0%	68.5%	26.9%	0.0%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.		18:00 28	18:00 13		18:00 3									18:00 44

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

WB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
02/04/21	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
05:00	0	10	7	0	0	0	0	0	0	0	0	0	0	17
06:00	0	45	21	1	2	0	0	0	0	0	0	0	0	69
07:00	0	62	12	1	5	0	0	0	1	0	0	0	0	81
08:00	0	45	17	1	6	0	0	0	0	0	0	0	0	69
09:00	0	40	16	0	1	0	1	1	0	0	0	0	0	59
10:00	0	39	18	0	2	1	0	0	0	0	0	0	0	60
11:00	0	34	12	0	1	0	0	1	0	0	0	0	0	48
12 PM	0	27	23	0	5	0	0	0	0	0	0	0	0	55
13:00	0	48	12	0	3	3	0	0	0	0	0	0	0	66
14:00	0	38	11	1	4	1	0	0	0	0	0	0	0	55
15:00	0	38	16	2	6	0	0	0	0	0	0	0	0	62
16:00	0	43	26	1	0	0	0	0	0	0	0	0	0	70
17:00	0	43	13	0	3	0	0	0	0	0	0	0	0	59
18:00	0	30	11	0	4	0	0	0	0	0	0	0	0	45
19:00	0	11	6	0	1	0	0	0	0	0	0	0	0	18
20:00	0	10	3	0	2	1	0	0	0	0	0	0	0	16
21:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
22:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Day Total	0	585	228	7	46	6	1	2	1	0	0	0	0	876
Percent	0.0%	66.8%	26.0%	0.8%	5.3%	0.7%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	06:00	06:00	08:00	10:00	09:00	09:00	07:00					07:00
Vol.		62	21	1	6	1	1	1	1					81
PM Peak		13:00	16:00	15:00	15:00	13:00								16:00
Vol.		48	26	2	6	3								70

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

WB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
02/05/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	3	1	0	0	0	0	0	1	0	0	0	0	5
04:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
05:00	0	12	6	0	0	0	0	0	0	0	0	0	0	18
06:00	0	34	18	1	1	0	0	0	0	0	0	0	0	54
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	0	55	29	1	1	0	0	0	1	0	0	0	0	87
Percent	0.0%	63.2%	33.3%	1.1%	1.1%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.		06:00	06:00	06:00	06:00				03:00					06:00
PM Peak Vol.		34	18	1	1				1					54
Grand Total	0	714	286	8	52	6	1	2	2	0	0	0	0	1071
Percent	0.0%	66.7%	26.7%	0.7%	4.9%	0.6%	0.1%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

EB

Start Time	0 5	6 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
02/03/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	0	1	2	4	1	5	2	11	12	4	0	0	0	0	0	42
19:00	0	0	0	0	0	0	0	9	10	7	2	0	0	0	0	28
20:00	0	0	0	0	0	1	1	6	8	4	2	0	0	0	0	22
21:00	0	0	0	3	0	0	4	6	4	1	1	0	0	0	0	19
22:00	0	0	0	0	0	0	1	0	4	3	1	0	0	0	0	9
23:00	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	3
Total	0	1	2	7	1	6	9	33	38	20	6	0	0	0	0	123

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

EB

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/04/21	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	3
05:00	0	0	0	0	0	1	0	0	2	3	1	0	0	0	0	7
06:00	0	0	0	0	0	2	1	4	5	2	2	0	0	0	0	16
07:00	0	0	0	0	0	0	1	8	10	8	2	1	0	0	0	30
08:00	0	0	0	0	0	1	2	5	12	13	3	2	0	0	0	38
09:00	0	0	0	0	0	0	2	6	14	10	0	0	0	0	0	32
10:00	0	0	1	0	0	1	2	9	19	7	0	0	1	0	0	40
11:00	0	0	0	0	0	2	5	12	20	1	0	0	0	0	0	40
12 PM	0	0	0	0	0	0	6	8	15	16	2	1	0	0	0	48
13:00	0	0	0	0	0	3	1	12	22	17	6	1	0	0	0	62
14:00	0	0	0	0	0	1	2	3	23	11	3	1	0	1	0	45
15:00	0	0	1	0	0	0	1	8	26	15	5	0	0	0	0	56
16:00	0	0	0	0	1	0	2	19	34	37	11	1	0	0	0	105
17:00	0	0	0	0	0	1	3	11	31	18	8	1	0	0	0	73
18:00	0	0	0	0	1	0	1	8	18	11	6	0	0	0	0	45
19:00	0	0	0	0	0	0	2	6	13	9	4	0	0	0	0	34
20:00	0	0	0	0	0	0	2	9	8	12	3	0	0	0	0	34
21:00	0	0	0	0	0	0	0	3	7	1	0	0	0	0	0	11
22:00	0	0	0	0	0	0	0	0	2	3	1	0	0	0	0	6
23:00	0	0	0	0	0	1	0	2	3	0	0	0	0	0	0	6
Total	0	0	2	0	2	13	36	135	285	196	58	8	1	1	0	737

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

EB

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/05/21	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	4
05:00	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	1	2	3	1	1	0	0	0	0	8
Grand Total	0	1	4	7	3	19	46	170	326	217	65	8	1	1	0	868

Stats
15th Percentile : 36 MPH
50th Percentile : 42 MPH
85th Percentile : 48 MPH
95th Percentile : 52 MPH

Mean Speed(Average) : 43 MPH
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 543
Percent in Pace : 62.6%
Number of Vehicles > 45 MPH : 292
Percent of Vehicles > 45 MPH : 33.6%

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

WB

Start Time	05	610	1115	1620	2125	2630	3135	3640	4145	4650	5155	5660	6165	6670	7175	Total
02/03/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	0	1	5	1	1	1	2	5	11	9	7	1	0	0	0	44
19:00	0	0	0	0	0	0	0	3	6	8	3	2	0	0	0	22
20:00	0	0	0	0	0	0	0	3	4	4	4	0	0	0	0	15
21:00	0	0	2	0	0	0	1	3	7	3	0	0	0	0	0	16
22:00	0	0	0	0	1	0	1	2	4	1	0	0	0	0	0	9
23:00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Total	0	1	7	1	2	1	4	16	33	26	14	3	0	0	0	108

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

WB

Start Time	0 5	6 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
02/04/21	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	4
04:00	0	0	0	0	0	0	0	1	0	3	0	1	0	0	0	5
05:00	0	0	0	0	0	0	0	3	9	3	2	0	0	0	0	17
06:00	0	0	0	0	0	1	0	7	13	31	15	2	0	0	0	69
07:00	0	0	0	0	0	1	2	12	25	26	12	3	0	0	0	81
08:00	0	0	0	0	0	0	1	7	16	32	13	0	0	0	0	69
09:00	0	0	0	0	0	0	4	8	13	21	9	4	0	0	0	59
10:00	0	1	0	0	1	1	0	13	15	20	5	4	0	0	0	60
11:00	0	0	0	1	0	0	0	5	20	13	8	1	0	0	0	48
12 PM	0	0	0	1	0	0	0	8	11	20	13	1	1	0	0	55
13:00	0	0	0	0	0	1	5	5	20	19	12	4	0	0	0	66
14:00	0	0	1	0	0	0	0	6	16	18	9	4	1	0	0	55
15:00	0	0	0	0	0	0	2	5	17	16	18	4	0	0	0	62
16:00	0	0	1	0	0	0	2	7	21	22	15	2	0	0	0	70
17:00	0	0	0	0	0	0	0	7	21	20	8	3	0	0	0	59
18:00	0	0	0	0	0	0	2	8	17	13	5	0	0	0	0	45
19:00	0	0	0	0	0	0	1	4	6	3	3	1	0	0	0	18
20:00	0	0	0	0	0	0	1	3	4	5	3	0	0	0	0	16
21:00	0	0	0	0	0	0	0	0	3	3	0	1	0	0	0	7
22:00	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5
23:00	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Total	0	1	2	2	2	5	20	113	250	293	150	36	2	0	0	876

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

WB

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/05/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	5
04:00	0	0	0	0	0	0	1	1	1	1	4	0	0	0	0	8
05:00	0	0	0	0	0	0	0	1	7	6	2	2	0	0	0	18
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	2	5	10	8	6	2	0	0	0	33
Grand Total	0	2	9	3	4	6	26	134	293	327	170	41	2	0	0	1017

Stats
15th Percentile : 38 MPH
50th Percentile : 45 MPH
85th Percentile : 51 MPH
95th Percentile : 54 MPH

Mean Speed(Average) : 45 MPH
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 620
Percent in Pace : 61.0%
Number of Vehicles > 45 MPH : 540
Percent of Vehicles > 45 MPH : 53.1%

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

Start Time	2/1/2021		2/2/2021		2/3/2021		2/4/2021		2/5/2021		Weekday Average		2/6/2021		2/7/2021	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	4	2	2	0	3	1	0	0	0	0
01:00	*	*	*	*	*	*	1	0	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	0	1	0	2	0	2	0	0	0	0
03:00	*	*	*	*	*	*	1	4	0	5	0	4	0	0	0	0
04:00	*	*	*	*	*	*	3	5	4	8	4	6	0	0	0	0
05:00	*	*	*	*	*	*	7	17	2	18	4	18	0	0	0	0
06:00	*	*	*	*	*	*	16	69	10	54	13	62	0	0	0	0
07:00	*	*	*	*	*	*	30	81	7	29	18	55	0	0	0	0
08:00	*	*	*	*	*	*	38	69	0	0	19	34	0	0	0	0
09:00	*	*	*	*	*	*	32	59	0	0	16	30	0	0	0	0
10:00	*	*	*	*	*	*	40	60	0	0	20	30	0	0	0	0
11:00	*	*	*	*	*	*	40	48	0	0	20	24	0	0	0	0
12:00 PM	*	*	*	*	*	*	48	55	0	0	24	28	0	0	0	0
01:00	*	*	*	*	*	*	62	66	0	0	31	33	0	0	0	0
02:00	*	*	*	*	*	*	45	55	0	0	22	28	0	0	0	0
03:00	*	*	*	*	*	*	56	62	0	0	28	31	0	0	0	0
04:00	*	*	*	*	*	*	105	70	0	0	52	35	0	0	0	0
05:00	*	*	*	*	*	*	73	59	0	0	36	30	0	0	0	0
06:00	*	*	*	*	*	*	42	44	0	0	29	30	0	0	0	0
07:00	*	*	*	*	28	22	34	18	0	0	21	13	0	0	0	0
08:00	*	*	*	*	22	15	34	16	0	0	19	10	0	0	0	0
09:00	*	*	*	*	19	16	11	7	0	0	10	8	0	0	0	0
10:00	*	*	*	*	9	9	6	5	0	0	5	5	0	0	0	0
11:00	*	*	*	*	3	2	6	3	0	0	3	2	0	0	0	0
Total	0	0	0	0	123	108	737	876	25	116	397	519	0	0	0	0
Day	0		0		231		1613		141		916		0		0	
AM Peak	-	-	-	-	-	-	10:00	07:00	06:00	06:00	10:00	06:00	-	-	-	-
Vol.	-	-	-	-	-	-	40	81	10	54	20	62	-	-	-	-
PM Peak	-	-	-	-	18:00	18:00	16:00	16:00	-	-	16:00	16:00	-	-	-	-
Vol.	-	-	-	-	42	44	105	70	-	-	52	35	-	-	-	-

Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 150
Segment: 830' W of US 9 & 20
Ctr#: AP91

GPS: 42.552710, -73.678028

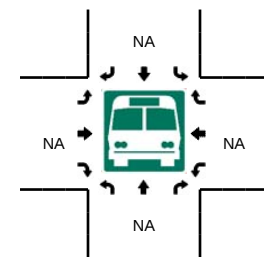
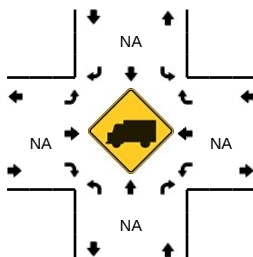
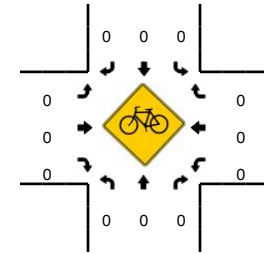
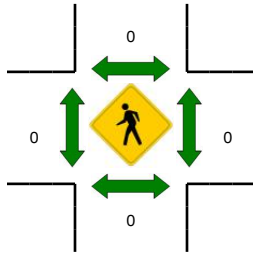
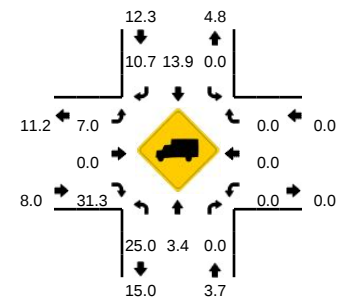
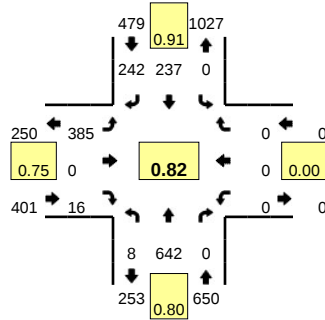
Start Time	2/8/2021		2/9/2021		2/10/2021		2/11/2021		2/12/2021		Weekday Average		2/13/2021		2/14/2021	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
01:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
02:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
03:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
04:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Day	0		0		0		0		0		0		0		0	
AM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comb. Total	0	0	231	1613	141	916	0	0
ADT	ADT 470	AADT 470						

LOCATION: US Route 9 -- US Route 20
CITY/STATE: Nassau, NY

QC JOB #: 14623001
DATE: Fri, Mar 16 2018

Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:30 AM -- 7:45 AM



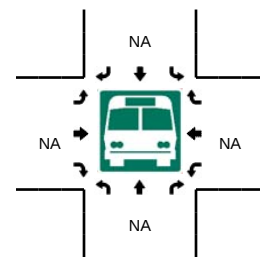
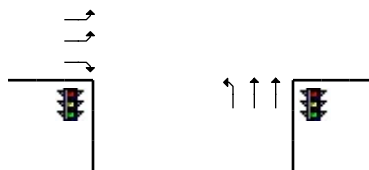
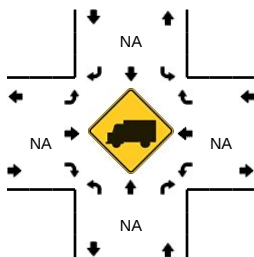
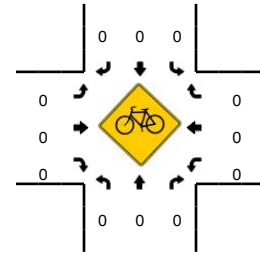
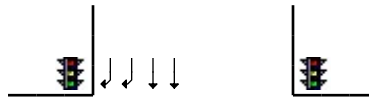
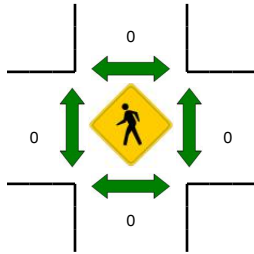
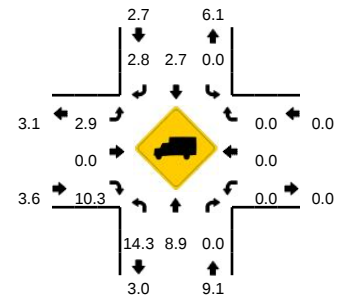
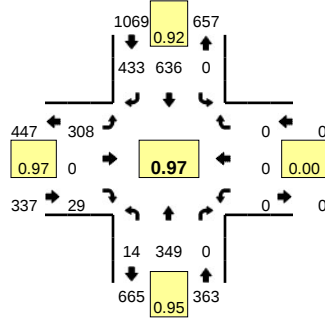
15-Min Count Period Beginning At	US Route 9 (Northbound)				US Route 9 (Southbound)				US Route 20 (Eastbound)				US Route 20 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	132	0	0	0	51	56	0	70	0	2	0	0	0	0	0	316	
7:15 AM	2	158	0	0	0	61	58	0	103	0	3	0	0	0	0	0	385	
7:30 AM	2	201	0	0	0	54	74	0	129	0	5	0	0	0	0	0	465	
7:45 AM	1	141	0	0	0	72	63	0	84	0	2	0	0	0	0	0	363	1529
8:00 AM	3	142	0	0	0	50	47	0	69	0	6	0	0	0	0	0	317	1530
8:15 AM	3	114	0	0	0	55	47	0	82	0	3	0	0	0	0	0	304	1449
8:30 AM	5	146	0	0	0	55	44	0	83	0	5	0	0	0	0	0	338	1322
8:45 AM	1	125	0	0	0	45	36	0	72	0	5	0	0	0	0	0	284	1243
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	804	0	0	0	216	296	0	516	0	20	0	0	0	0	0	1860	
Heavy Trucks	0	32	0	0	0	12	24	0	24	0	4	0	0	0	0	0	96	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

LOCATION: US Route 9 -- US Route 20
CITY/STATE: Nassau, NY

QC JOB #: 14623002
DATE: Thu, Mar 15 2018

Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM



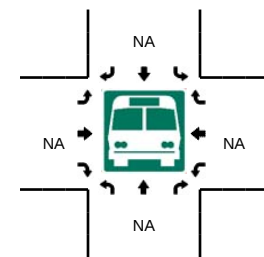
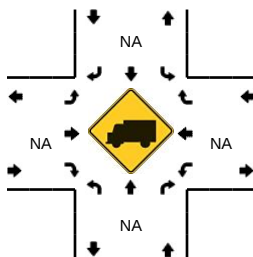
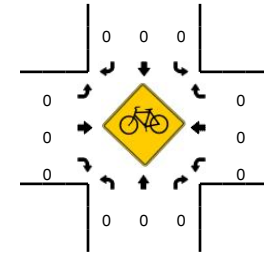
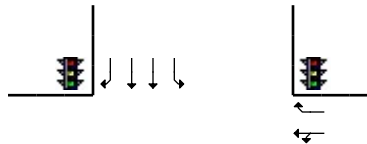
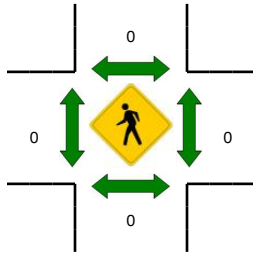
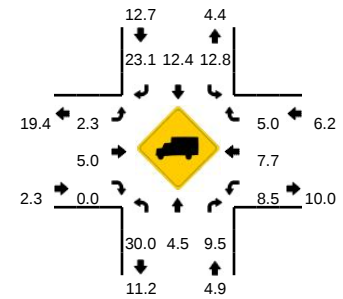
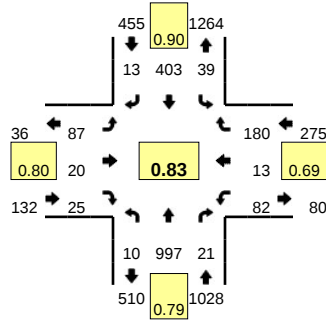
15-Min Count Period Beginning At	US Route 9 (Northbound)				US Route 9 (Southbound)				US Route 20 (Eastbound)				US Route 20 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	91	0	0	0	135	78	0	87	0	7	0	0	0	0	0	402	
4:15 PM	4	76	0	0	0	131	106	0	79	0	6	0	0	0	0	0	402	
4:30 PM	2	62	0	0	0	140	93	0	83	0	11	0	0	0	0	0	391	
4:45 PM	3	92	0	0	0	162	106	0	85	0	8	0	0	0	0	0	456	1651
5:00 PM	6	80	0	0	0	160	94	0	70	0	11	0	0	0	0	0	421	1670
5:15 PM	2	94	0	0	0	146	110	0	81	0	4	0	0	0	0	0	437	1705
5:30 PM	3	83	0	0	0	168	123	0	72	0	6	0	0	0	0	0	455	1769
5:45 PM	2	80	0	0	0	118	76	0	62	0	6	0	0	0	0	0	344	1657
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	368	0	0	0	648	424	0	340	0	32	0	0	0	0	0	1824	
Heavy Trucks	4	48	0	0	0	16	8	0	12	0	0	0	0	0	0	0	88	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

LOCATION: US Route 9/US Route 20 -- NY Route 150
CITY/STATE: Castleton-on-Hudson, NY

QC JOB #: 14623003
DATE: Fri, Mar 16 2018

Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:30 AM -- 7:45 AM



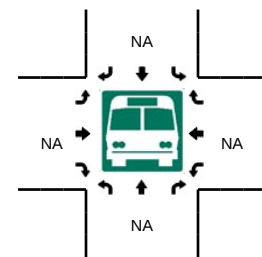
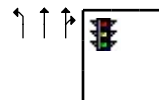
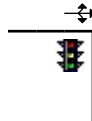
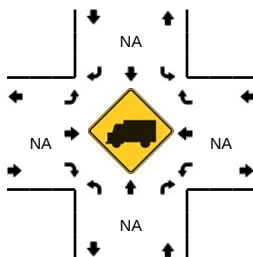
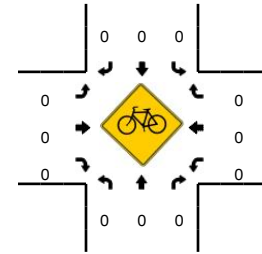
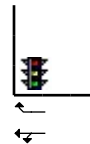
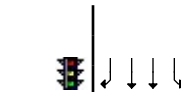
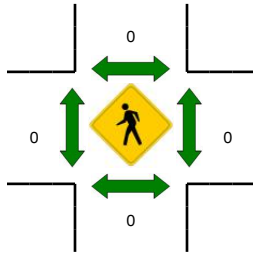
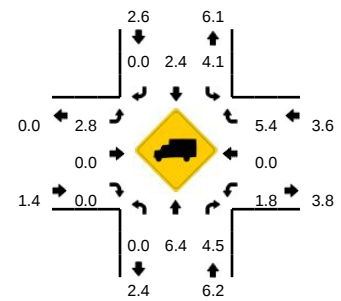
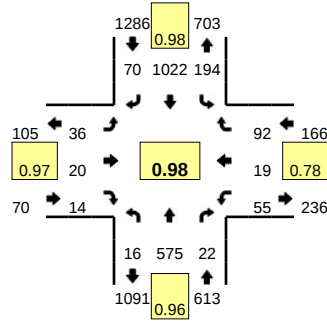
15-Min Count Period Beginning At	US Route 9/US Route 20 (Northbound)				US Route 9/US Route 20 (Southbound)				NY Route 150 (Eastbound)				NY Route 150 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	196	4	0	10	95	3	0	17	3	9	0	19	0	33	0	391	
7:15 AM	2	248	6	0	10	105	2	0	23	5	5	0	19	5	43	0	473	
7:30 AM	3	324	1	0	11	87	5	0	32	5	4	0	30	4	66	0	572	
7:45 AM	3	229	10	0	8	116	3	0	15	7	7	0	14	4	38	0	454	1890
8:00 AM	3	195	8	0	17	83	4	0	18	2	7	0	16	3	33	0	389	1888
8:15 AM	3	194	5	0	17	84	5	0	14	2	3	0	8	1	48	0	384	1799
8:30 AM	3	225	4	0	8	88	2	0	13	2	7	0	19	1	45	0	417	1644
8:45 AM	3	183	4	0	8	70	4	0	13	4	6	0	10	2	38	0	345	1535
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	1296	4	0	44	348	20	0	128	20	16	0	120	16	264	0	2288	
Heavy Trucks	0	52	0		4	28	8		4	0	0		0	4	12		112	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

LOCATION: US Route 9/US Route 20 -- NY Route 150
CITY/STATE: Castleton-on-Hudson, NY

QC JOB #: 14623004
DATE: Thu, Mar 15 2018

Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM



15-Min Count Period Beginning At	US Route 9/US Route 20 (Northbound)				US Route 9/US Route 20 (Southbound)				NY Route 150 (Eastbound)				NY Route 150 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	146	7	0	39	192	16	0	7	3	3	0	14	3	14	0	449	
4:15 PM	4	141	4	0	48	221	18	0	4	0	3	0	10	4	28	0	485	
4:30 PM	4	134	3	0	47	221	16	0	6	1	4	0	11	5	22	0	474	
4:45 PM	2	150	7	0	52	262	15	0	9	6	3	0	13	6	19	0	544	1952
5:00 PM	6	132	6	0	52	253	22	0	10	3	4	0	9	1	18	0	516	2019
5:15 PM	5	148	5	0	50	242	19	0	7	8	3	0	13	7	26	0	533	2067
5:30 PM	3	145	4	0	40	265	14	0	10	3	4	0	20	5	29	0	542	2135
5:45 PM	4	136	2	0	43	182	12	0	6	6	2	0	9	8	24	0	434	2025
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	600	28	0	208	1048	60	0	36	24	12	0	52	24	76	0	2176	
Heavy Trucks	0	64	4		16	20	0		0	0	0		0	0	0		104	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

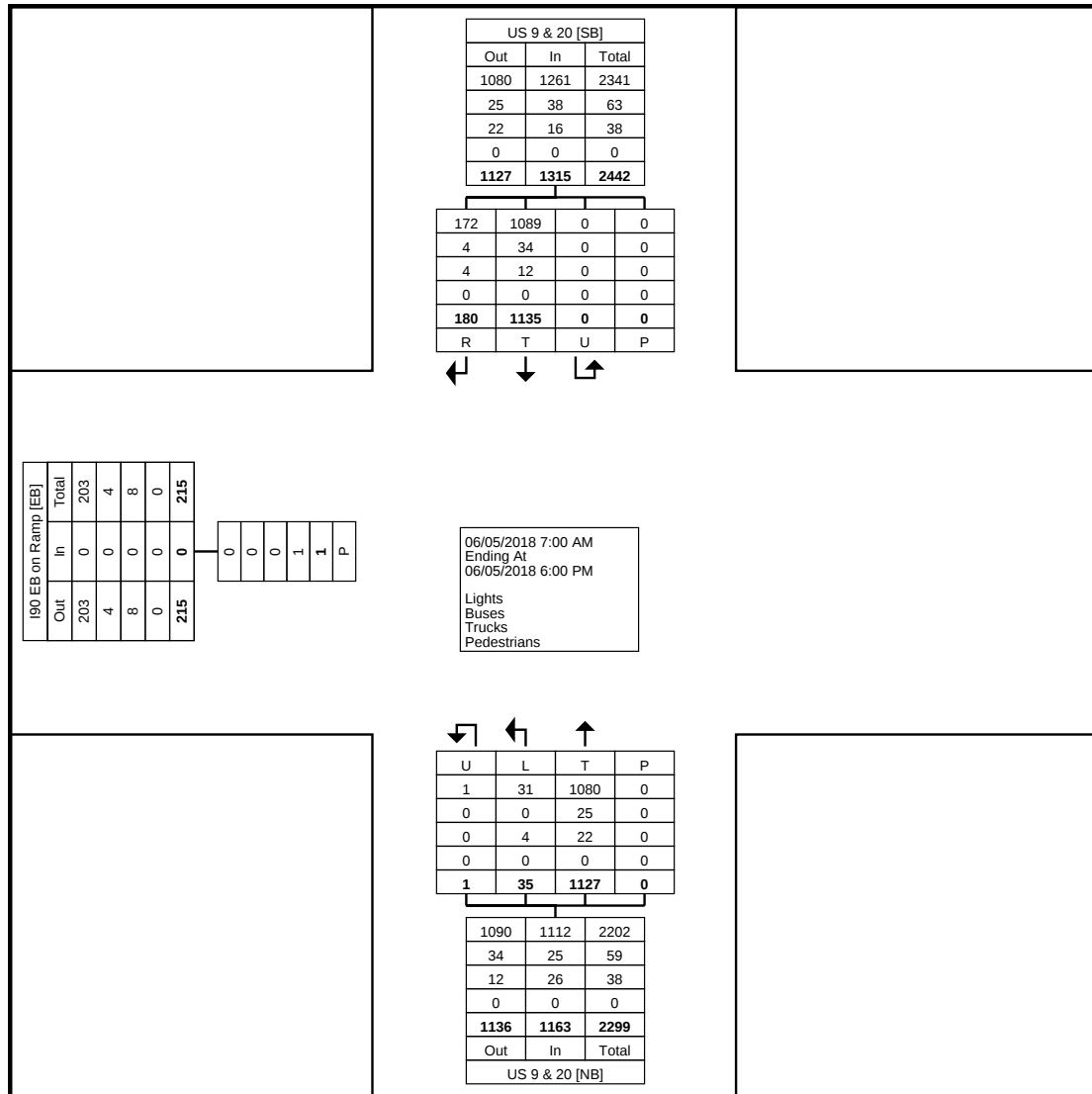


Coatesville, Pennsylvania, United States 19320
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Turning Movement Data

[illegible]

Schodack, NY
US 9/20 & I90 EB On Ramp
Tuesday, June 5, 2018
Location: 42.56047, -73.680487



Turning Movement Data Plot

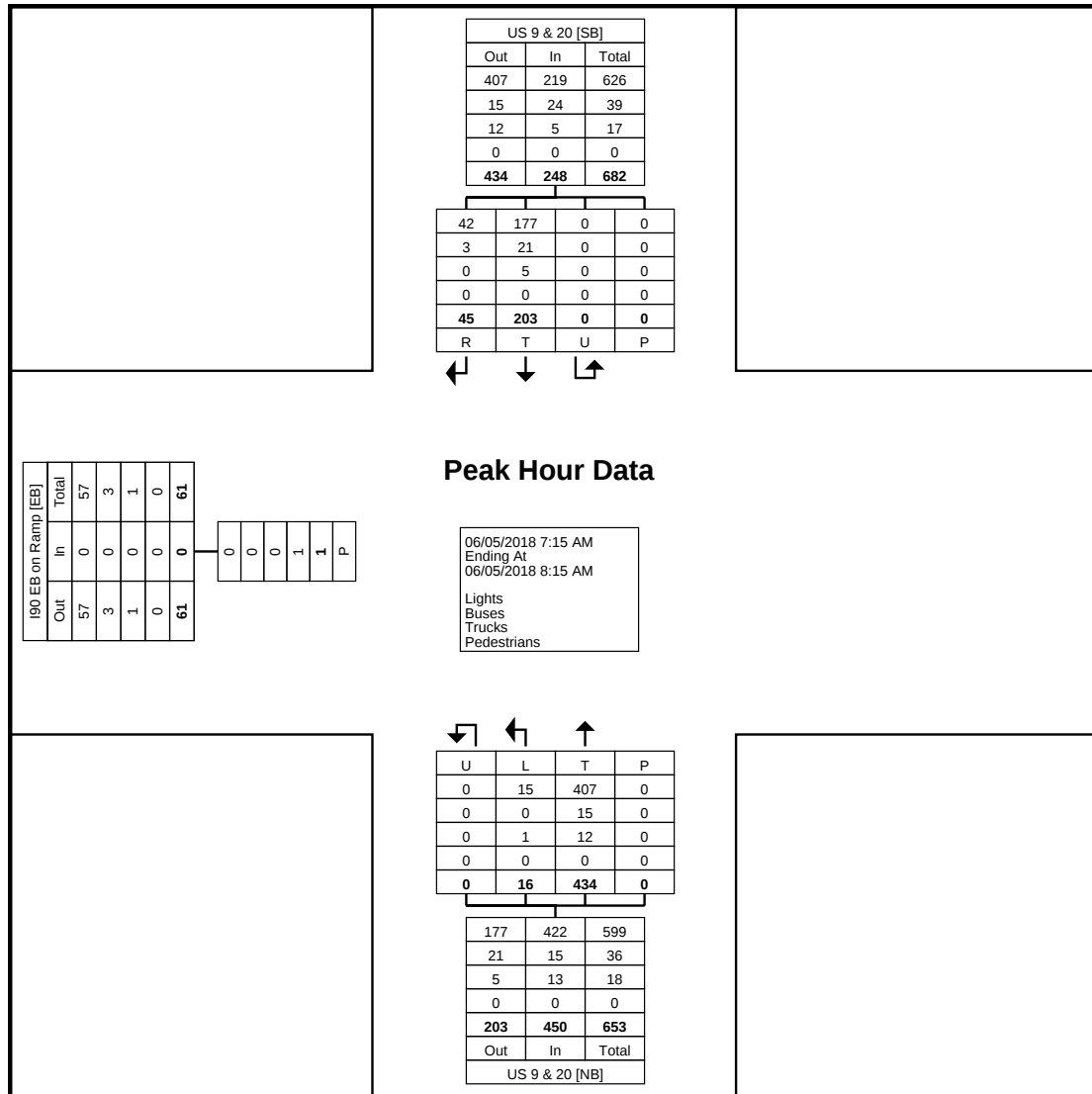


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Count Name: US 9 & 20 @ I90
EB on Ramp
Site Code: Schodack, New York
Start Date: 06/05/2018
Page No: 3

[illegible]

Schodack, NY
US 9/20 & I90 EB On Ramp
Tuesday, June 5, 2018
Location: 42.56047, -73.680487



Turning Movement Peak Hour Data Plot (7:15 AM)

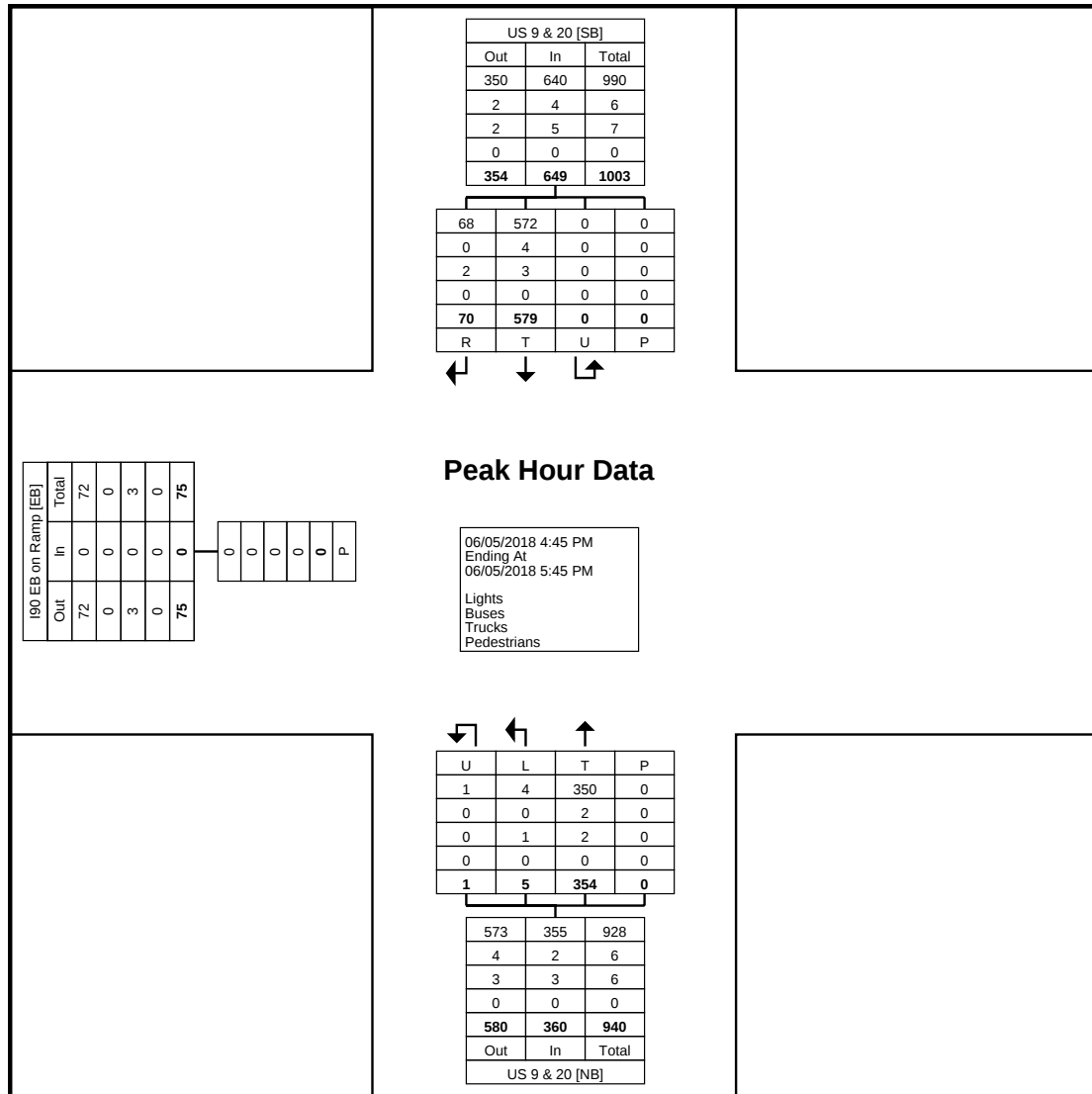


Coatesville, Pennsylvania, United States 19320
610-466-1469
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Count Name: US 9 & 20 @ I90
EB on Ramp
Site Code: Schodack, New York
Start Date: 06/05/2018
Page No: 5

[illegible]

Schodack, NY
US 9/20 & I90 EB On Ramp
Tuesday, June 5, 2018
Location: 42.56047, -73.680487



Turning Movement Peak Hour Data Plot (4:45 PM)



www.TSTData.com
184 Baker Rd

Schodack, NY
US 9/20 & I90 EB On Ramp
Tuesday, June 5, 2018
Location: 42.56047, -73.680487

Coatesville, Pennsylvania, United States 19320
610-466-1469
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Count Name: US 9 & 20 @ I90
EB on Ramp
Site Code: Schodack, New York
Start Date: 06/05/2018
Page No: 7

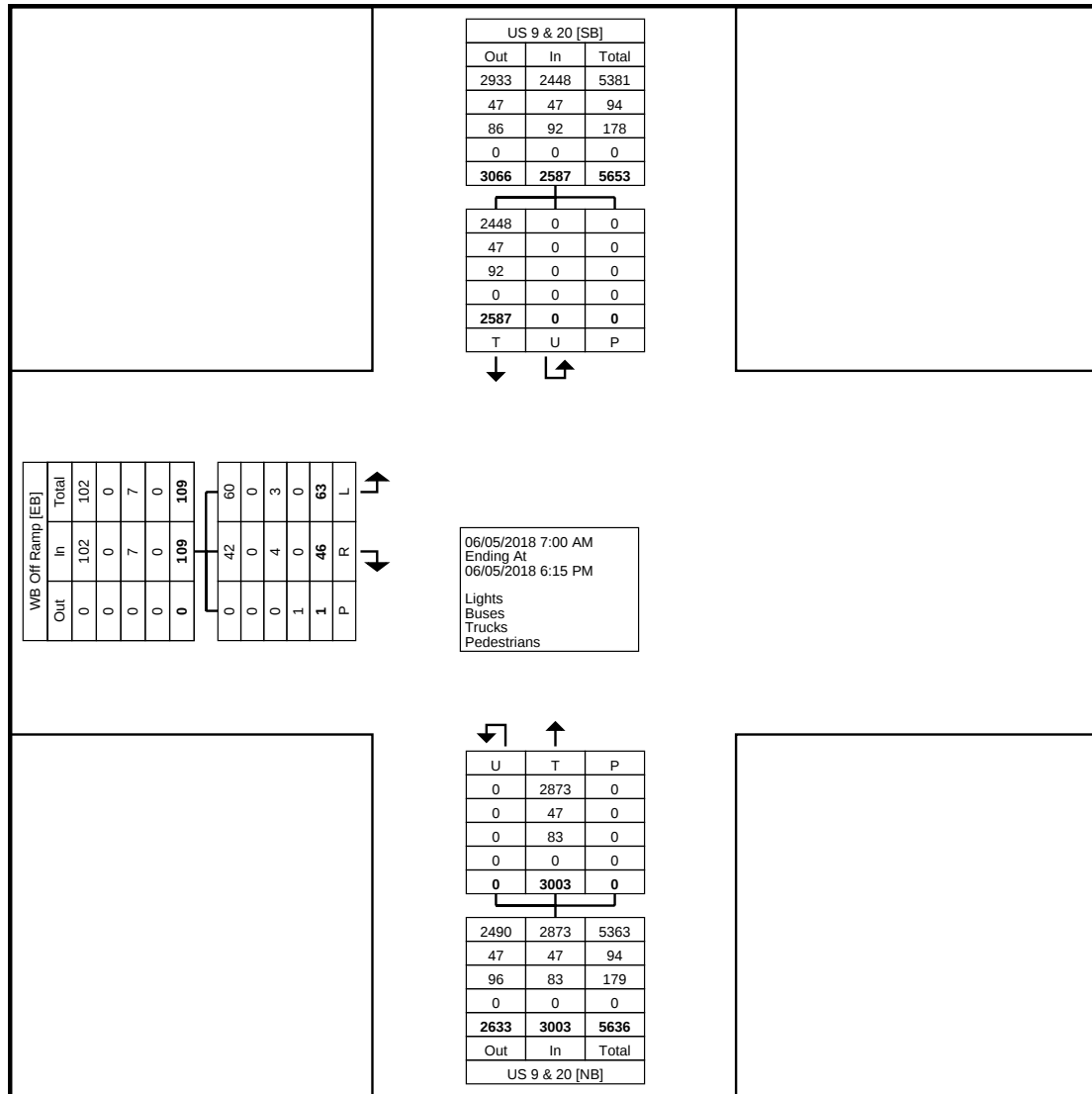
Schodack, NY
US 9/20 & I90 WB Off Ramp
Tuesday, June 5, 2018
Location: 42.556245, -73.67812

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & 20 @ I90
WB Off Ramp
Site Code: Schodack, New York
Start Date: 06/05/2018
Page No: 1

Turning Movement Data

[illegible]



Turning Movement Data Plot

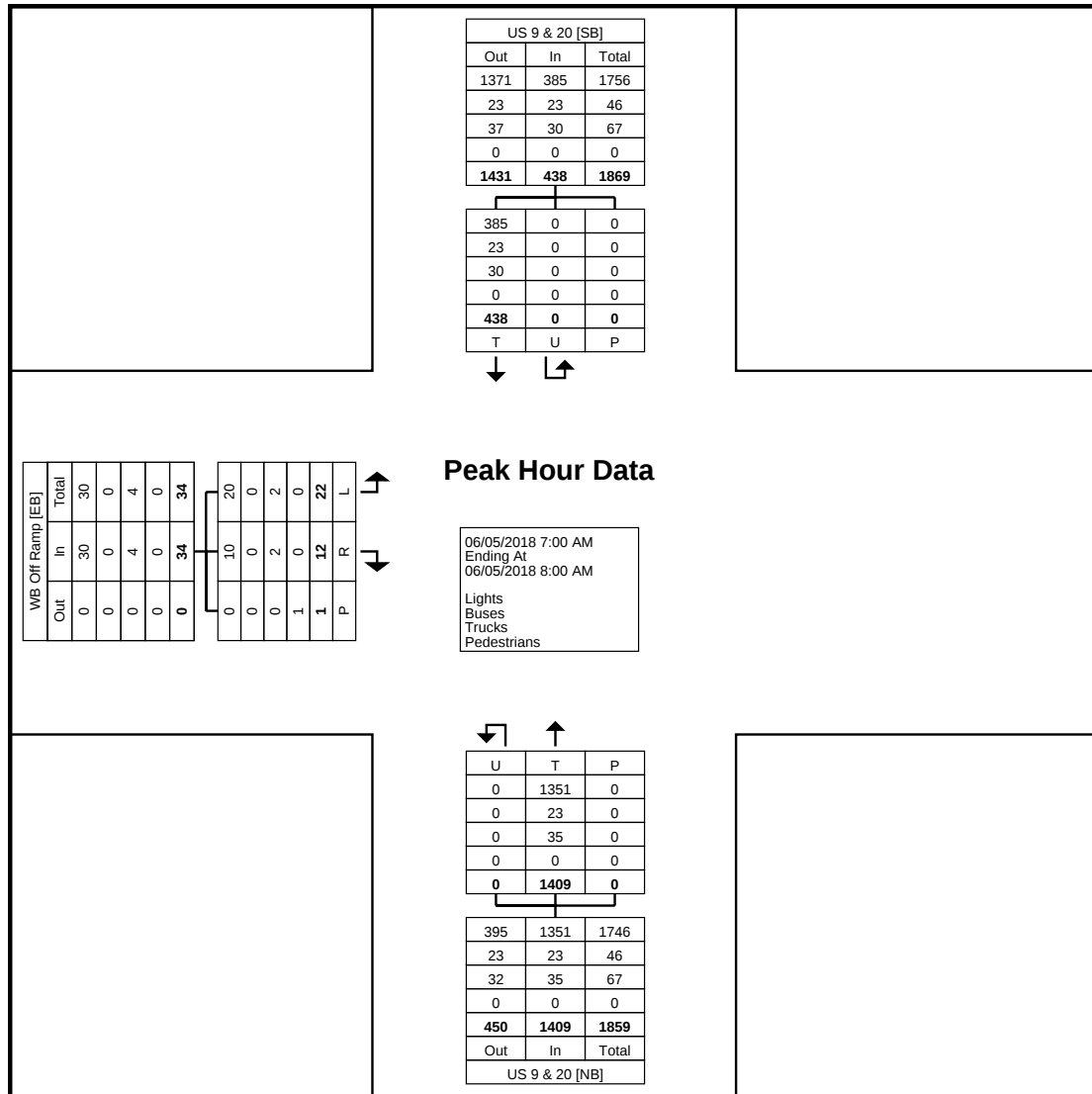


Coatesville, Pennsylvania, United States 19320
610-466-1469
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Turning Movement Peak Hour Data (7:00 AM)

[illegible]

Schodack, NY
US 9/20 & I90 WB Off Ramp
Tuesday, June 5, 2018
Location: 42.556245, -73.67812



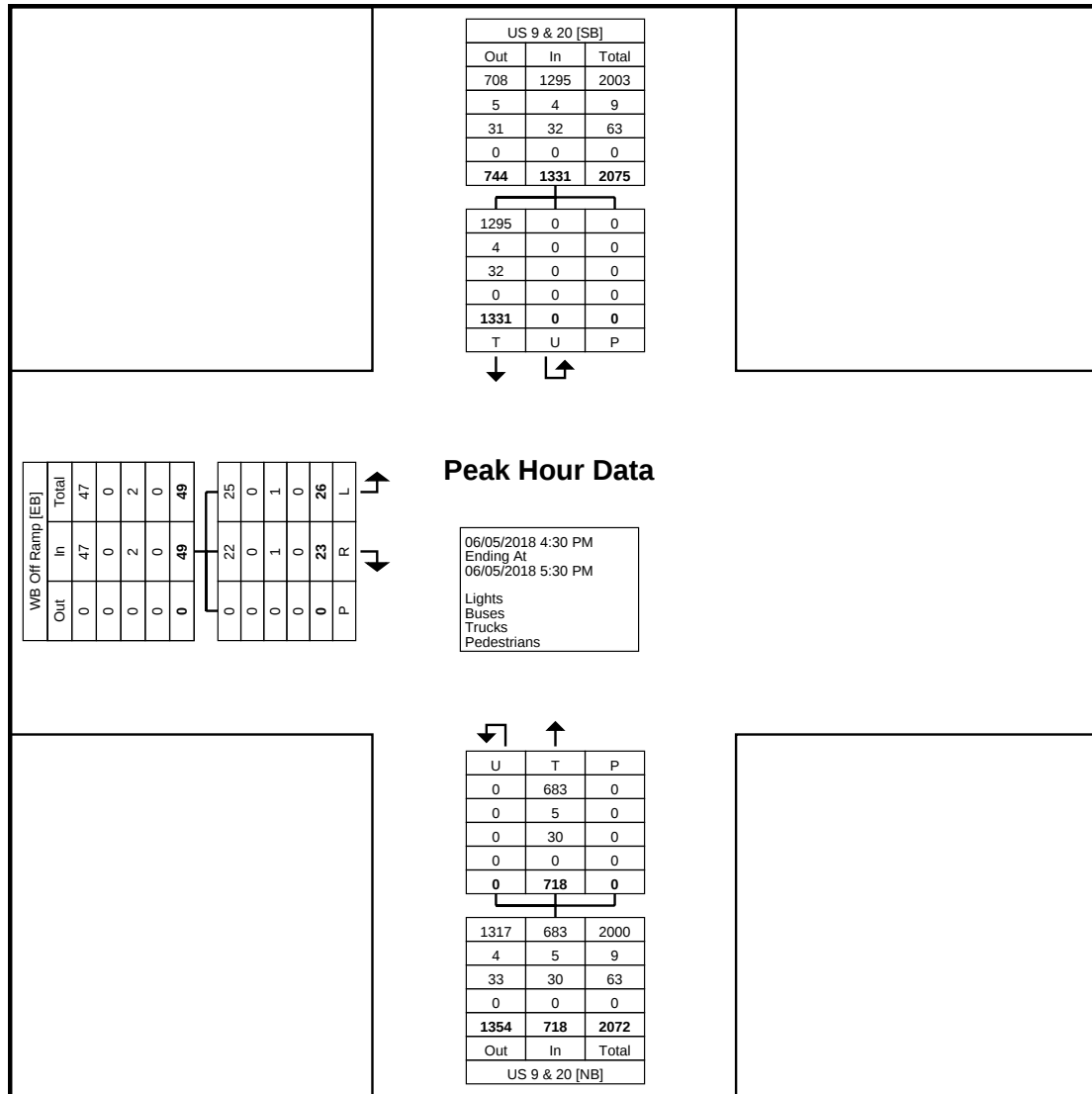
Turning Movement Peak Hour Data Plot (7:00 AM)



Coatesville, Pennsylvania, United States 19320
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Count Name: US 9 & 20 @ I90
WB Off Ramp
Site Code: Schodack, New York
Start Date: 06/05/2018
Page No: 5

[illegible]



Turning Movement Peak Hour Data Plot (4:30 PM)



www.TSTData.com
184 Baker Rd

Schodack, NY
US 9/20 & I90 WB Off Ramp
Tuesday, June 5, 2018
Location: 42.556245, -73.67812

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

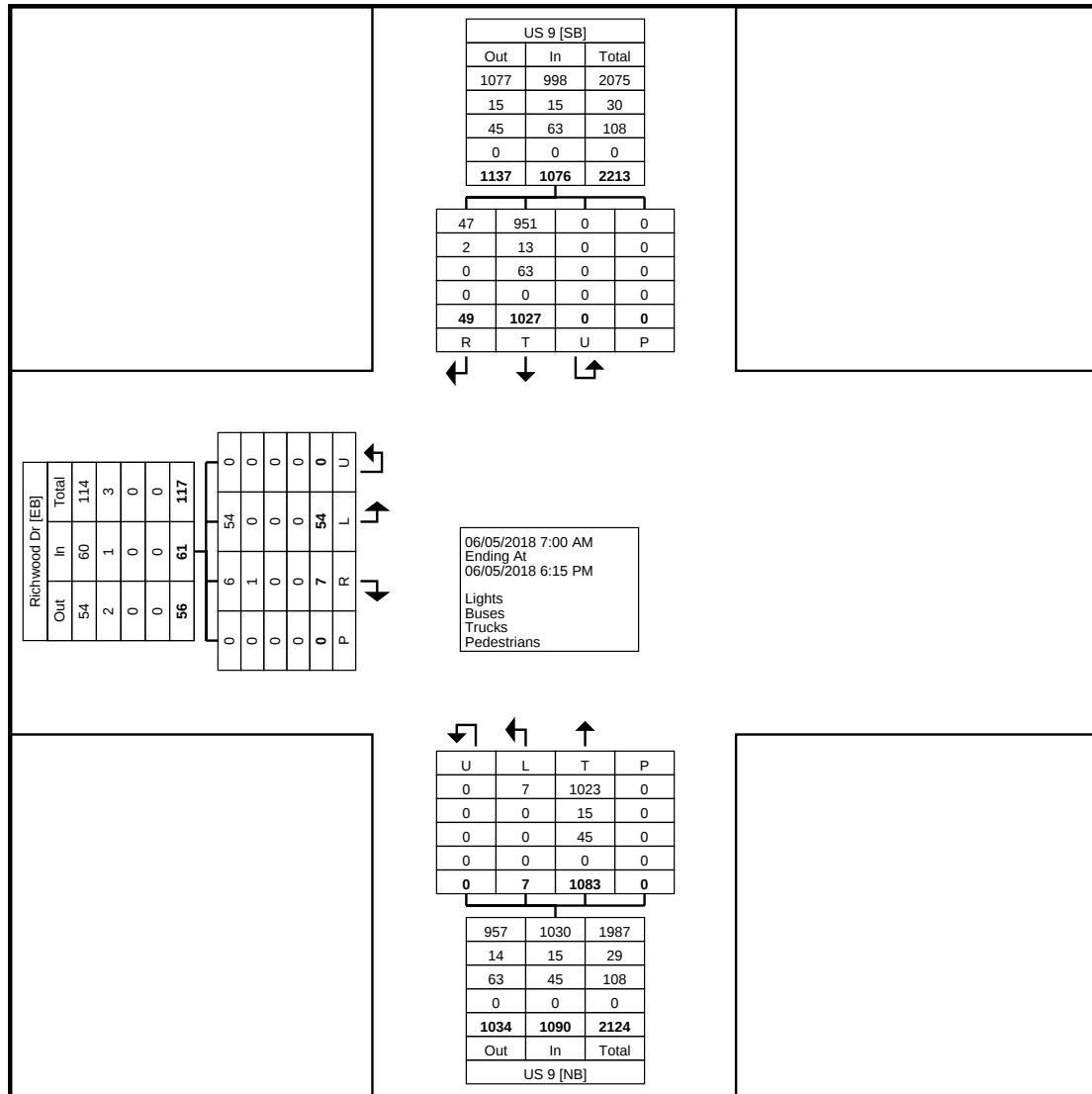
Count Name: US 9 & 20 @ I90
WB Off Ramp
Site Code: Schodack, New York
Start Date: 06/05/2018
Page No: 7



Coatesville, Pennsylvania, United States 19320
610-466-1469
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Turning Movement Data

Schodack, NY
US 9 @ Richwood Dr
Tuesday, June 5, 2018
Location: 42.545067, -
73.673572



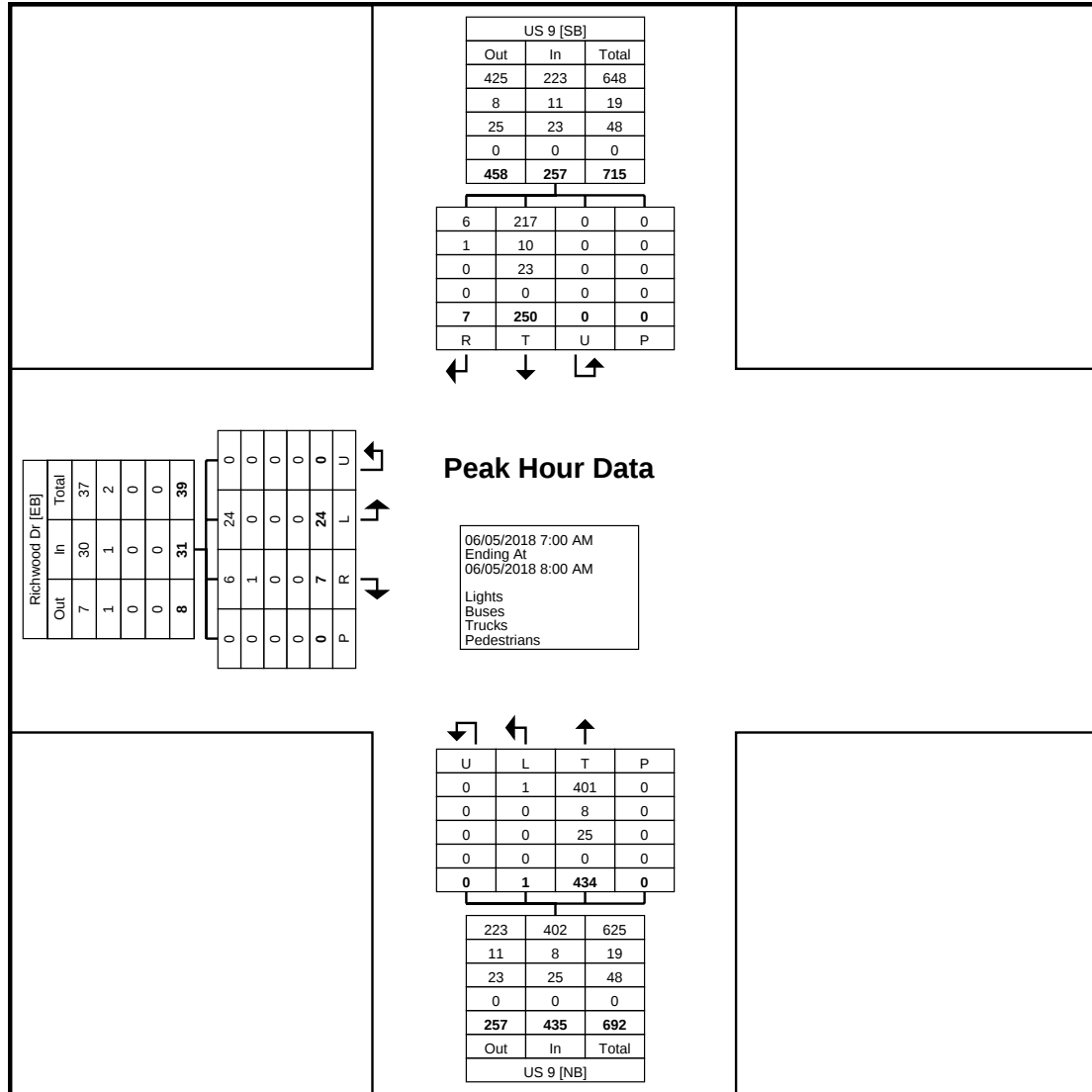
Turning Movement Data Plot



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Turning Movement Peak Hour Data (7:00 AM)

Start Time	Richwood Dr Eastbound					US 9 Northbound					US 9 Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	5	1	0	0	6	1	79	0	0	80	63	2	0	0	65	151
7:15 AM	7	3	0	0	10	0	121	0	0	121	66	2	0	0	68	199
7:30 AM	8	2	0	0	10	0	137	0	0	137	73	1	0	0	74	221
7:45 AM	4	1	0	0	5	0	97	0	0	97	48	2	0	0	50	152
Total	24	7	0	0	31	1	434	0	0	435	250	7	0	0	257	723
Approach %	77.4	22.6	0.0	-	-	0.2	99.8	0.0	-	-	97.3	2.7	0.0	-	-	-
Total %	3.3	1.0	0.0	-	4.3	0.1	60.0	0.0	-	60.2	34.6	1.0	0.0	-	35.5	-
PHF	0.750	0.583	0.000	-	0.775	0.250	0.792	0.000	-	0.794	0.856	0.875	0.000	-	0.868	0.818
Lights	24	6	0	-	30	1	401	0	-	402	217	6	0	-	223	655
% Lights	100.0	85.7	-	-	96.8	100.0	92.4	-	-	92.4	86.8	85.7	-	-	86.8	90.6
Buses	0	1	0	-	1	0	8	0	-	8	10	1	0	-	11	20
% Buses	0.0	14.3	-	-	3.2	0.0	1.8	-	-	1.8	4.0	14.3	-	-	4.3	2.8
Trucks	0	0	0	-	0	0	25	0	-	25	23	0	0	-	23	48
% Trucks	0.0	0.0	-	-	0.0	0.0	5.8	-	-	5.7	9.2	0.0	-	-	8.9	6.6
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



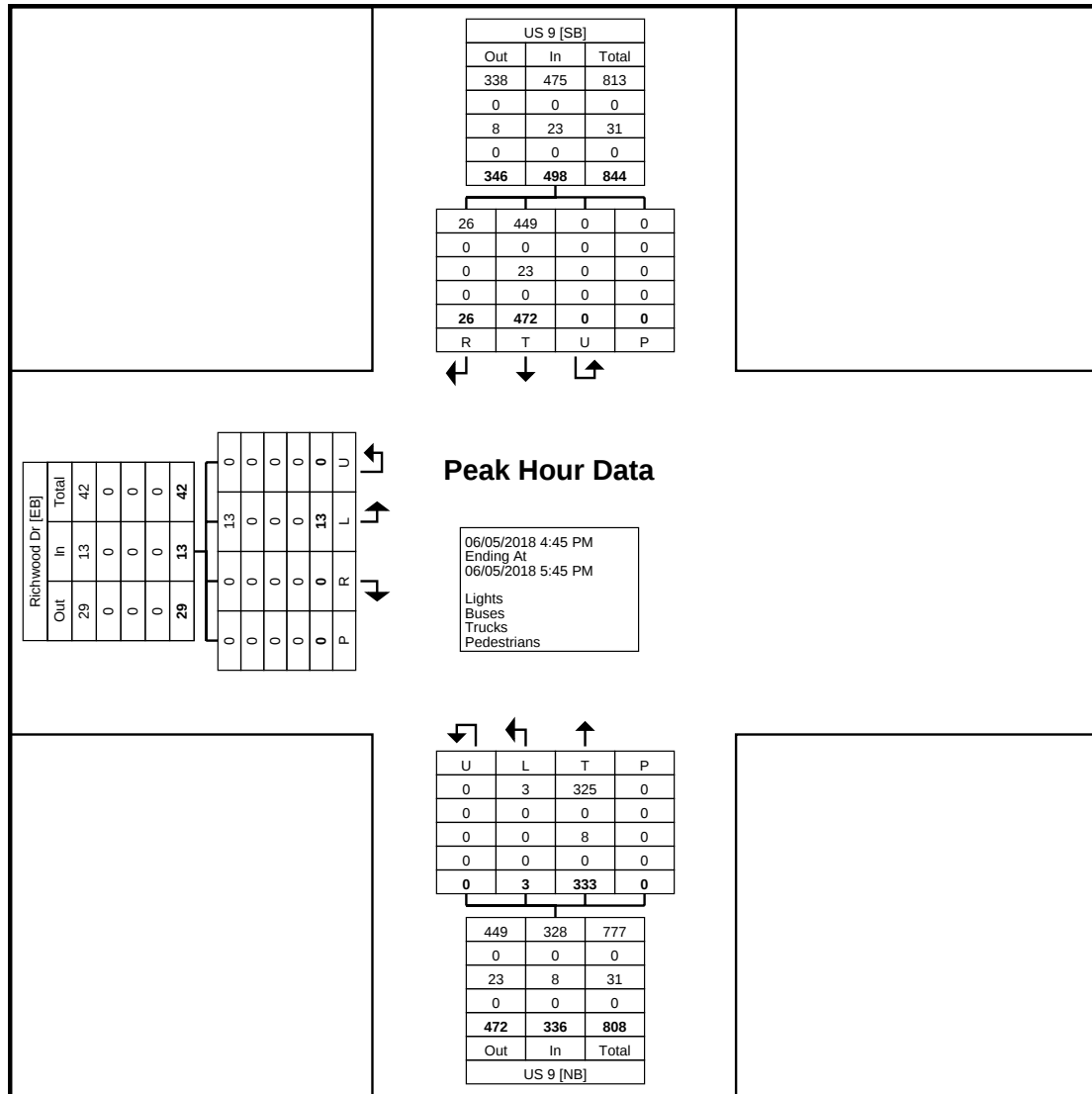
Turning Movement Peak Hour Data Plot (7:00 AM)



Coatesville, Pennsylvania, United States 19320
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Count Name: US 9 @ Richwood
Dr
Site Code: Schodack, New York
Start Date: 06/05/2018
Page No: 5

[illegible]



Turning Movement Peak Hour Data Plot (4:45 PM)



www.TSTData.com
184 Baker Rd

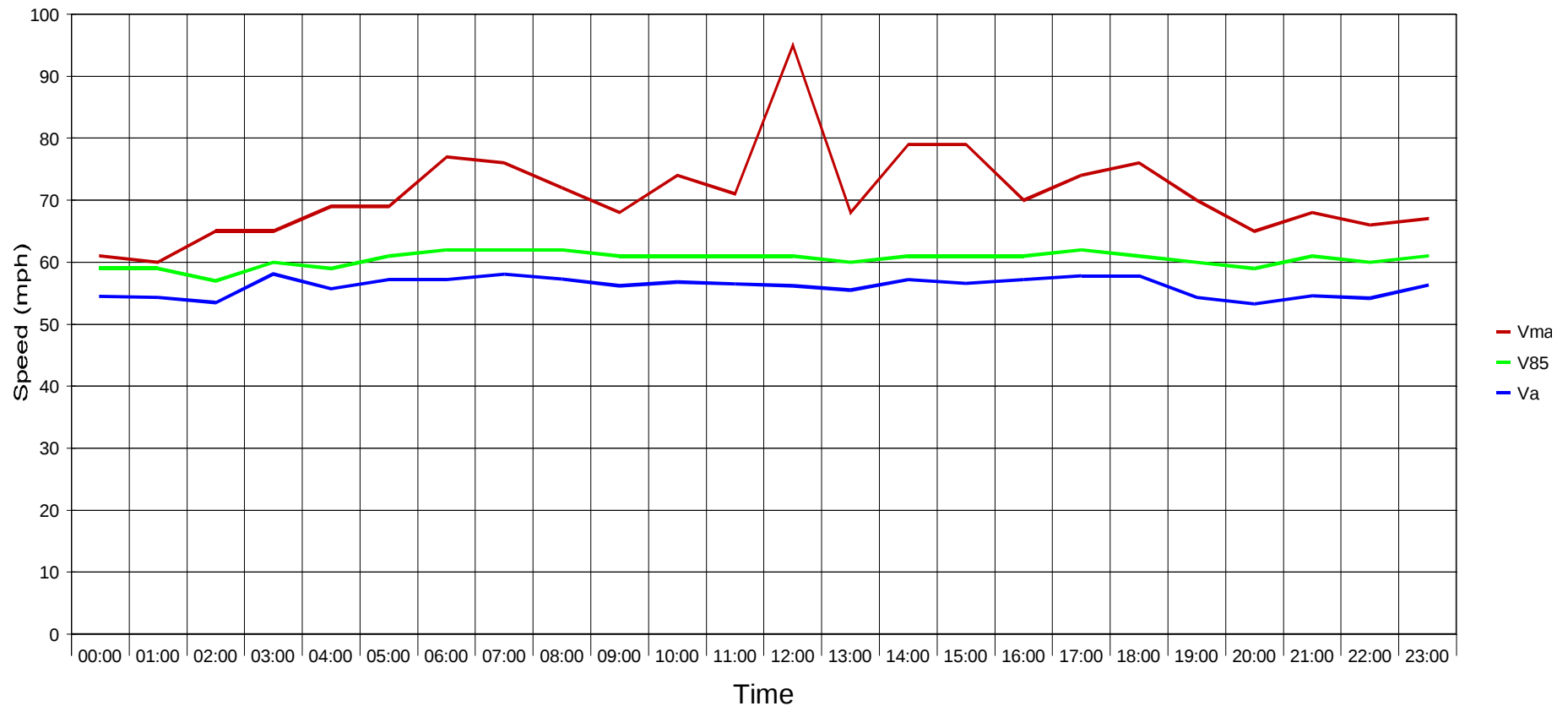
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Schodack, NY
US 9 @ Richwood Dr
Tuesday, June 5, 2018
Location: 42.545067, -
73.673572

Count Name: US 9 @ Richwood
Dr
Site Code: Schodack, New York
Start Date: 06/05/2018
Page No: 7



US Route 9 NB, 825 feet south of Richwood Drive



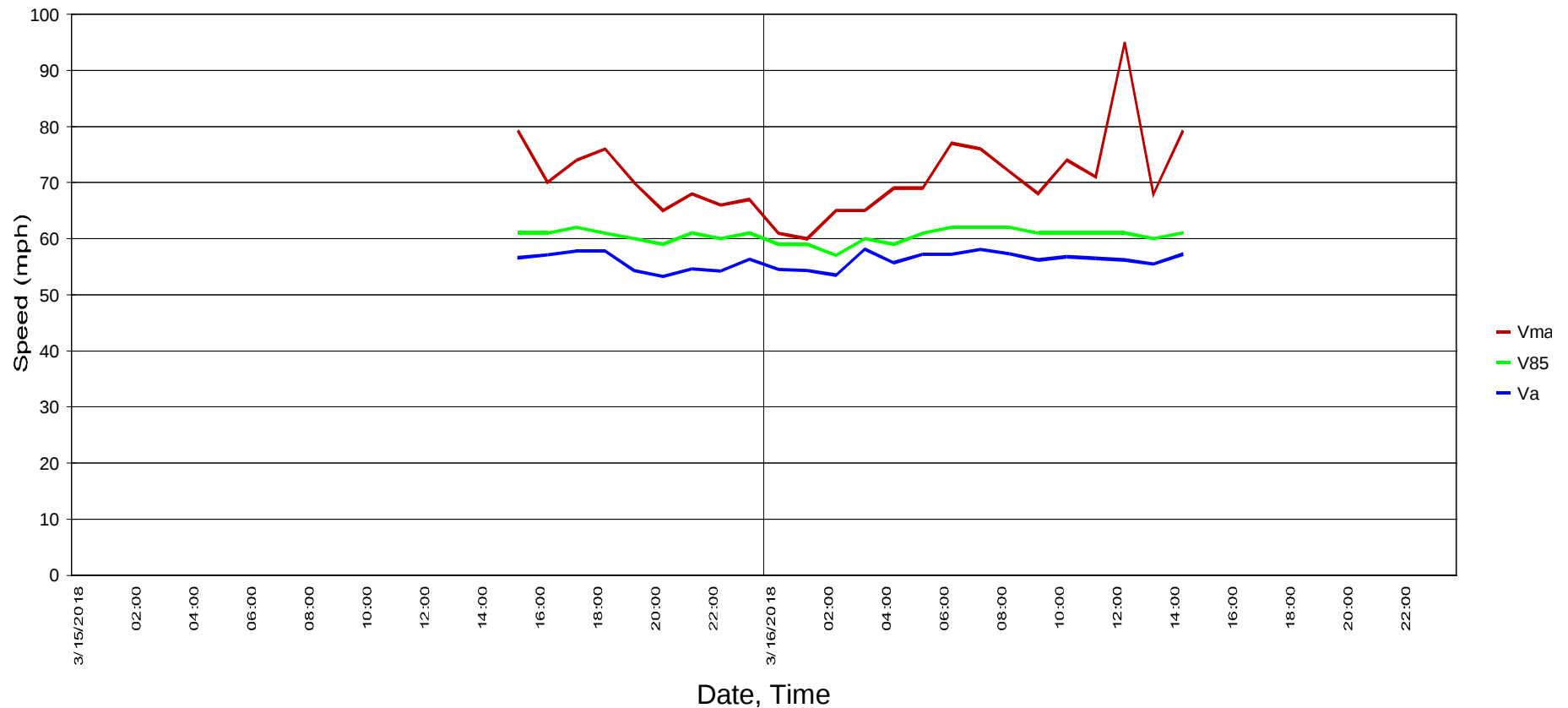
Statistics

Period: Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

		Count	%	V15	Va	V85	Vmax
Speed violations:	0 %	F-1	56	1.4	49	55	61
Average time interval:	1.5 sec	F-2,F-3	3752	92.3	52	57	61
Traffic in column:	22 %	F-4,-5,-6,-7	188	4.6	49	54	59
ADT:	4067	F-8,-9,-10	71	1.7	49	52	57
Truck Share:	6 %	Total	4067	100	51	57	61



US Route 9 NB, 825 feet south of Richwood Drive



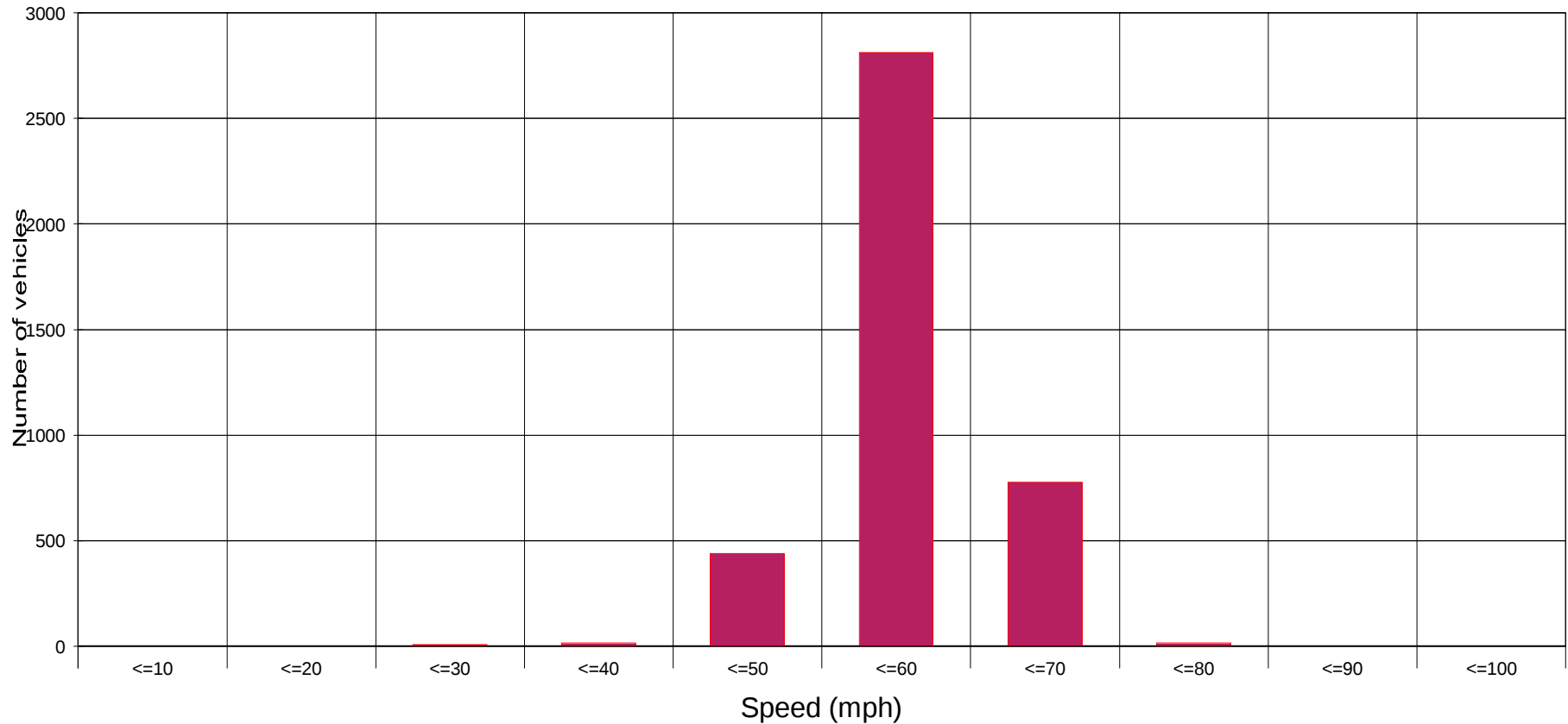
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US Route 9 NB, 825 feet south of Richwood Drive



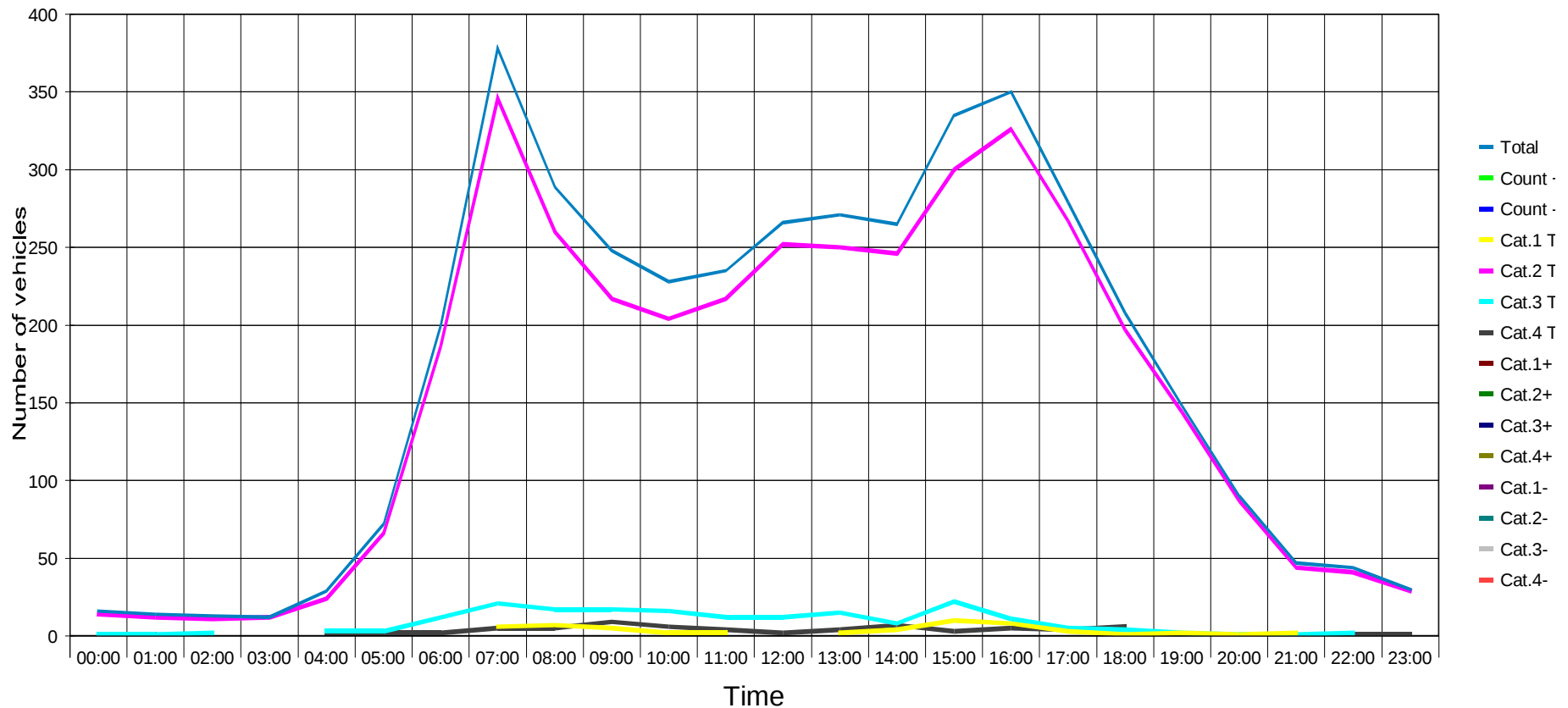
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US Route 9 NB, 825 feet south of Richwood Drive



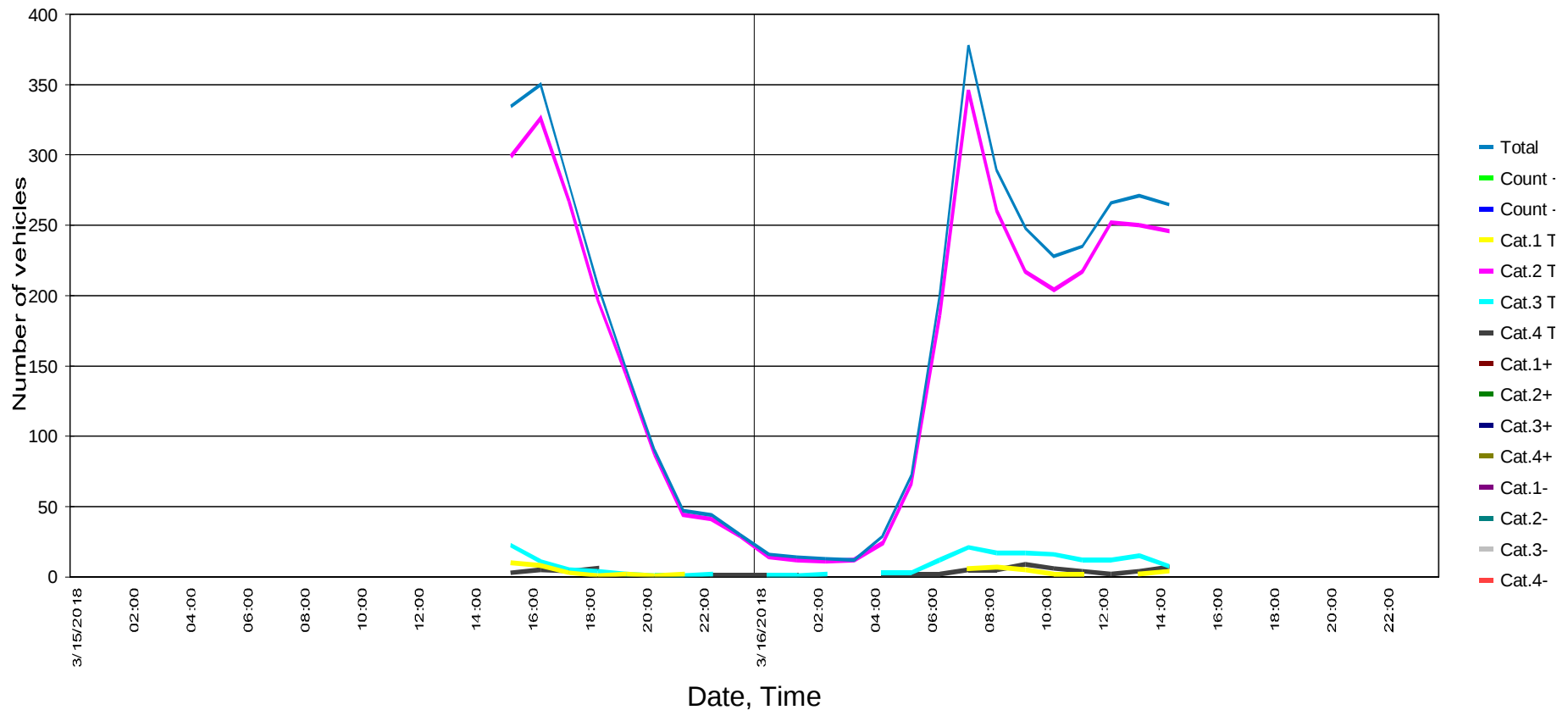
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US Route 9 NB, 825 feet south of Richwood Drive



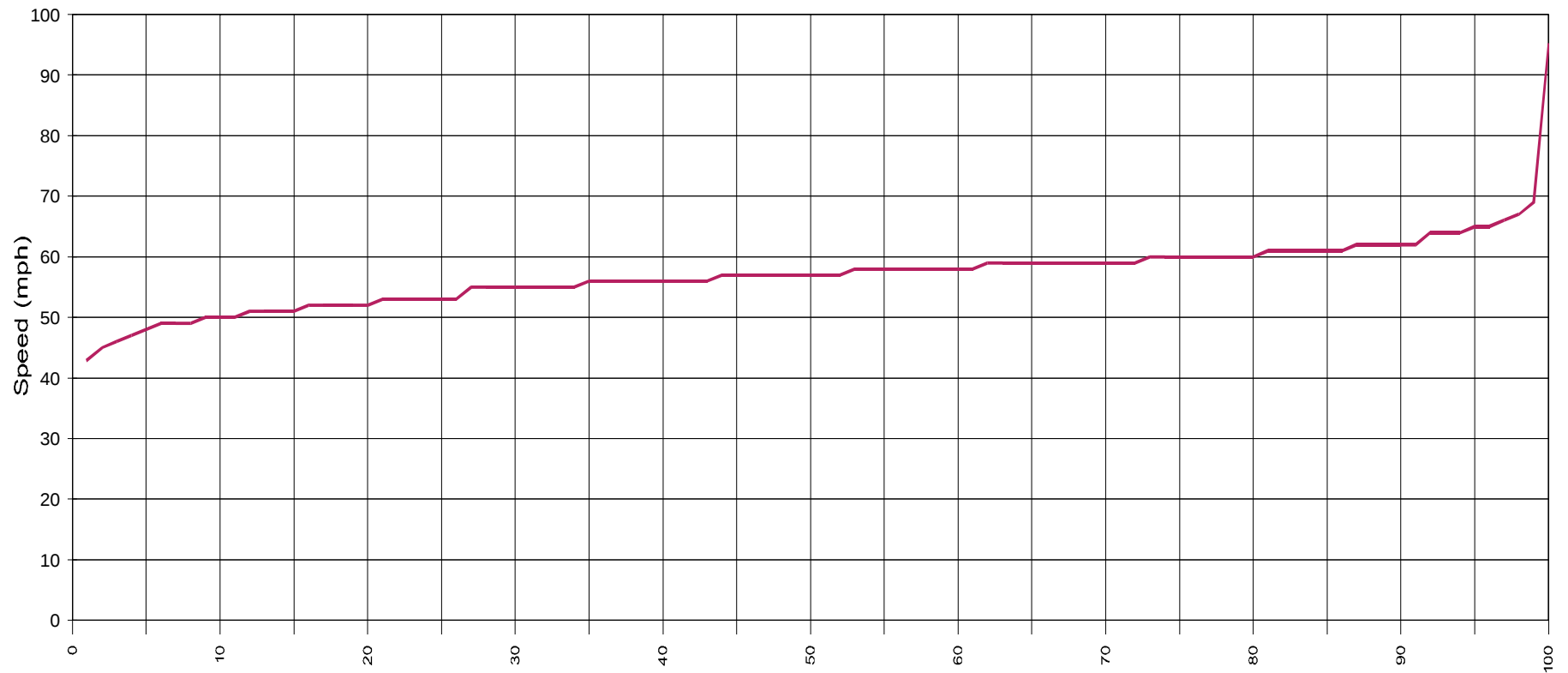
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US Route 9 NB, 825 feet south of Richwood Drive



Vx (%) Comment: x % of vehicles are driving at or below y mph

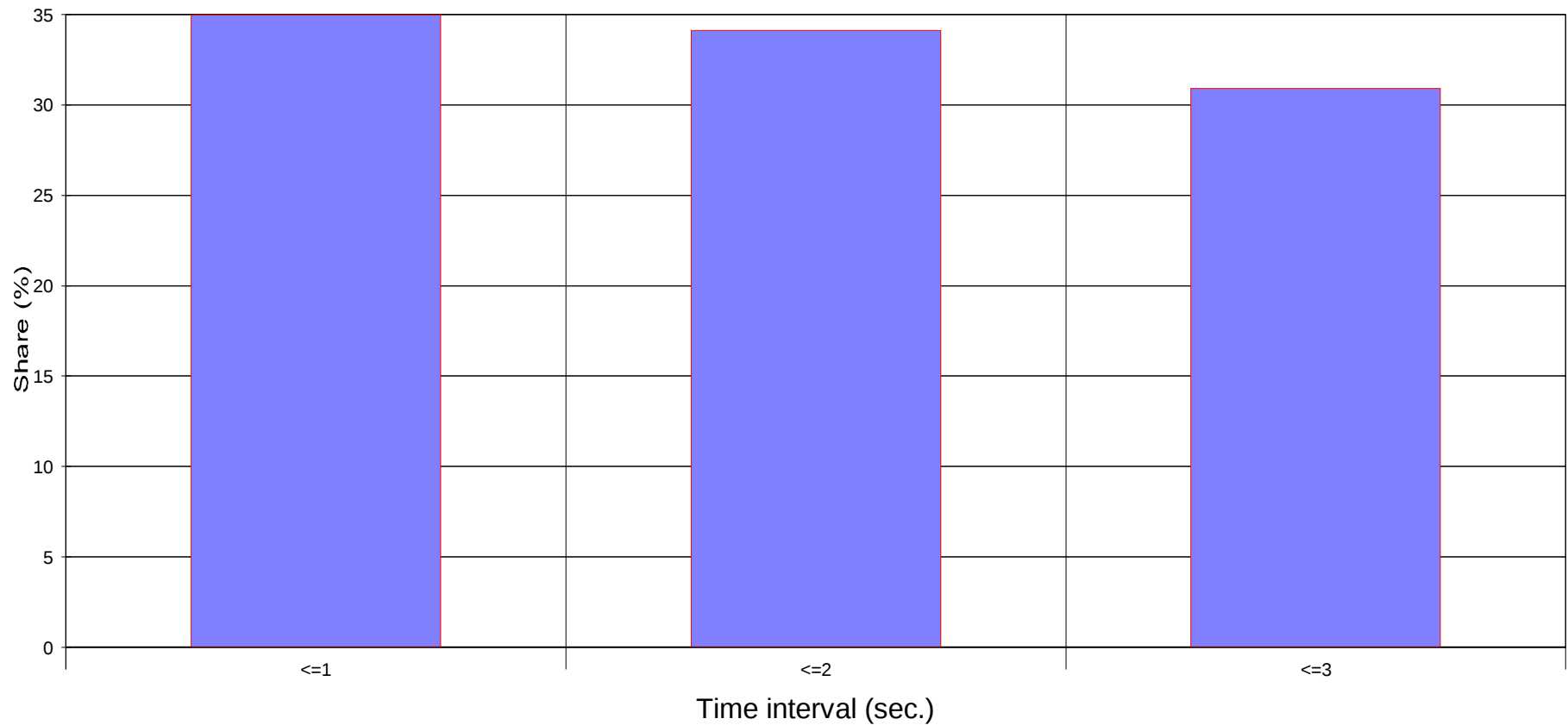
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US Route 9 NB, 825 feet south of Richwood Drive



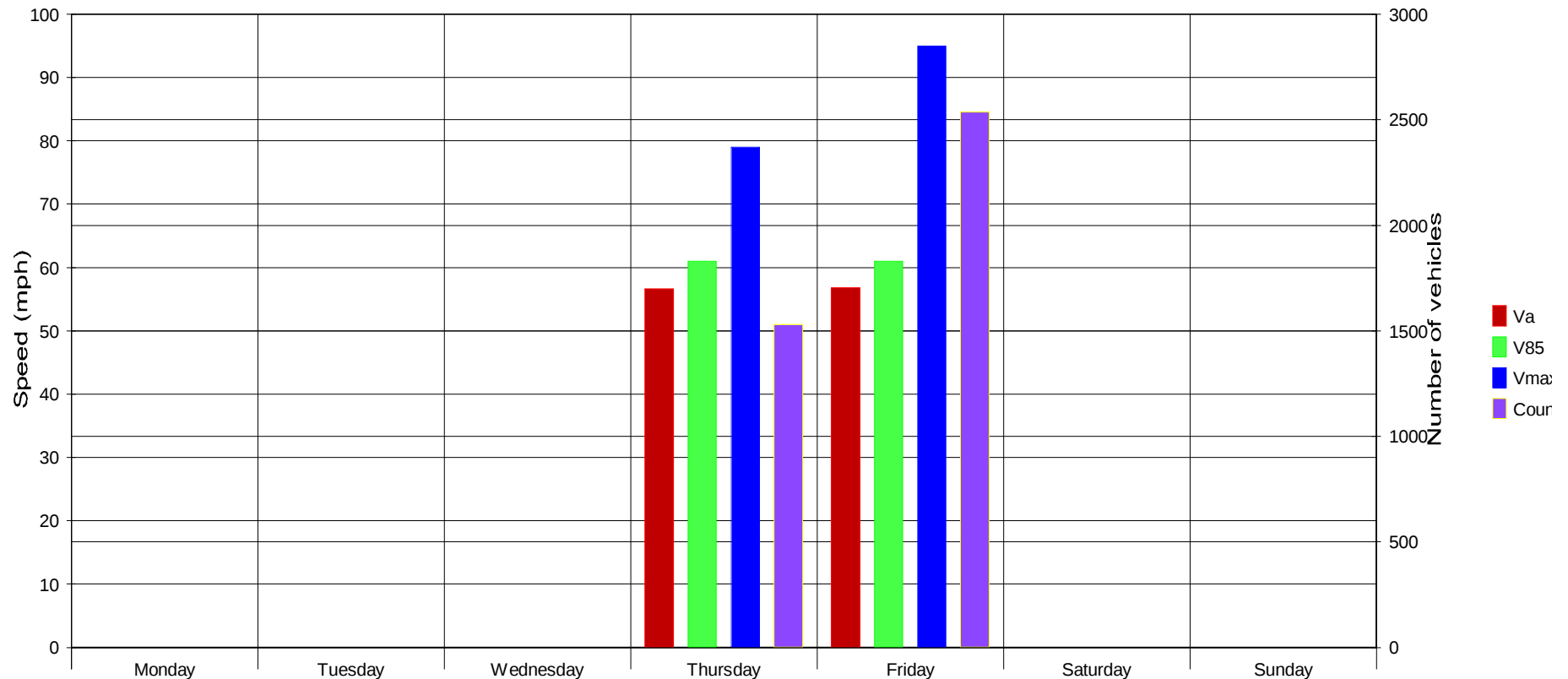
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US Route 9 NB, 825 feet south of Richwood Drive



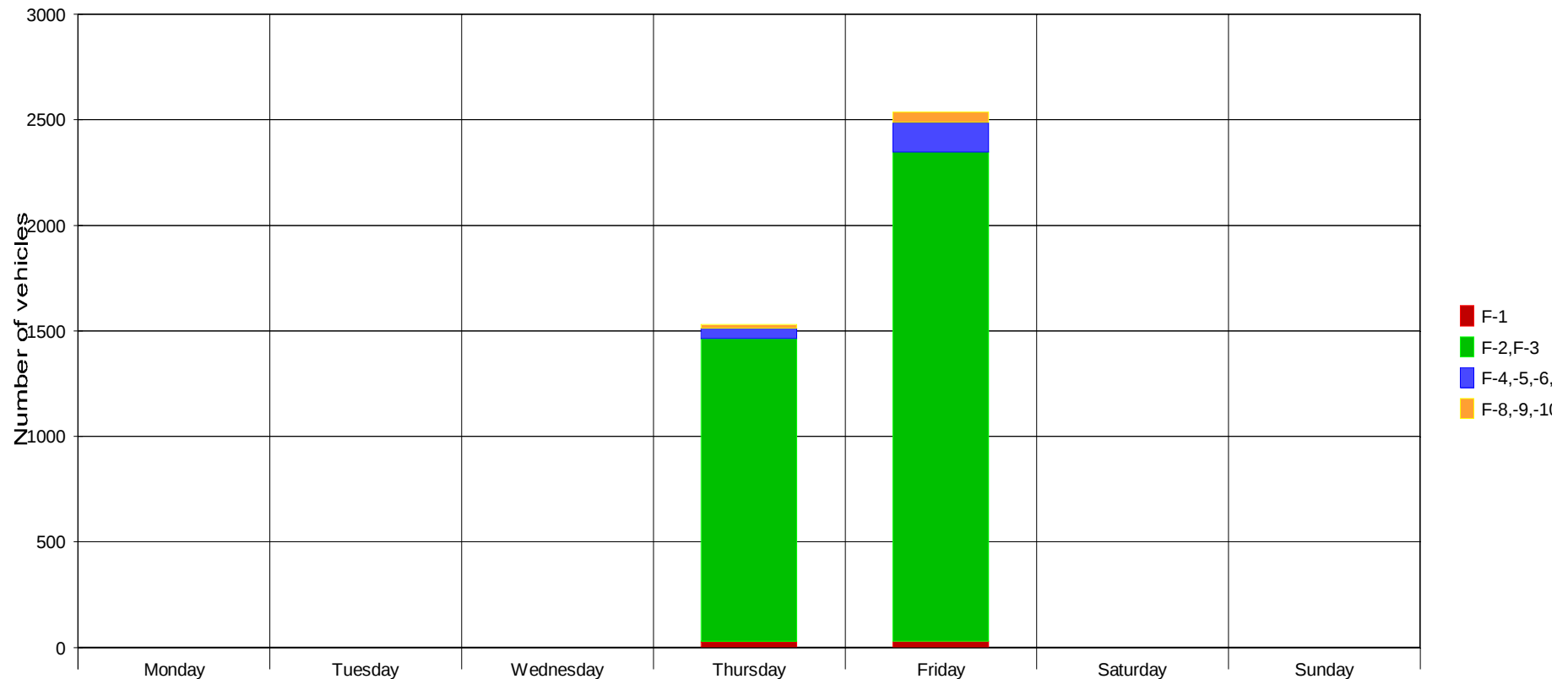
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US Route 9 NB, 825 feet south of Richwood Drive



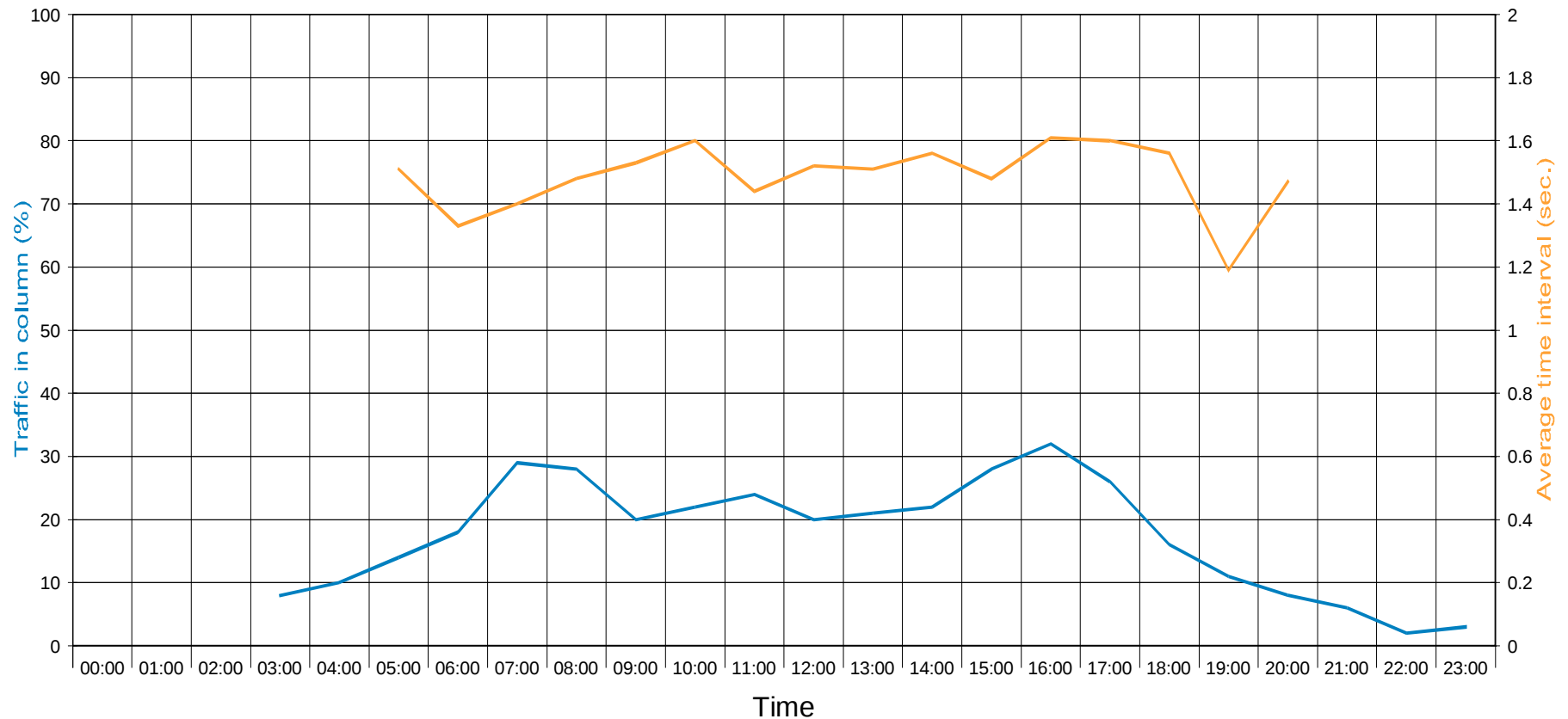
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Truck Share:	6 %	Total	4067	100	51	57	61



US Route 9 NB, 825 feet south of Richwood Drive



Statistics

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Speed violations:	0 %	F-1	56	1.4	49	55	61
Average time interval:	1.5 sec	F-2,F-3	3752	92.3	52	57	61
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ADT:	4067	F-8,-9,-10	71	1.7	49	52	57
Truck Share:	6 %	Total	4067	100	51	57	61

Detailed evaluation Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

Evaluation:	F-2,F-3					F-4,-5,-6,-7					F-8,-9,-10					F-4,-5,-6,-7 + F-8,-9,-10					Total:				
	Count	Share [%]	Va mph	V85 mph	Vmax mph	Count	Share [%]	Va mph	V85 mph	Vmax mph	Count	Share [%]	Va mph	V85 mph	Vmax mph	Count	Share [%]	Va mph	V85 mph	Vmax mph	Count	Share [%]	Va mph	V85 mph	Vmax mph
Day:	3268	92	57	62	95	172	4.8	54	59	66	62	1.7	52	57	61	234	6.6	54	59	66	3552	87.3	57	61	95
Evening:	275	96.5	54	60	70	4	1.4	54	55	59	1	0.4	39	39	39	5	1.8	51	55	59	285	7	54	60	70
Night:	208	90.8	56	60	69	12	5.2	54	57	59	8	3.5	53	57	60	20	8.7	54	57	60	229	5.6	56	60	69
16 Hours:	3543	92.3	57	61	95	176	4.6	54	59	66	63	1.6	52	57	61	239	6.2	54	59	66	3837	94.3	57	61	95
Weekday traffic:	3752	92.3	57	61	95	188	4.6	54	59	66	71	1.7	52	57	61	259	6.4	54	59	66	4067	100	57	61	95
Weekend traffic:																									
Total traffic:	3752	92.3	57	61	95	188	4.6	54	59	66	71	1.7	52	57	61	259	6.4	54	59	66	4067	100	57	61	95



Detailed evaluation Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

Evaluation:				Average Traffic									
	From - To	Days	Dir.	Day:		Evening:		Night:		16 Hours:		ADT	
From - To				06:00 - 18:59		19:00 - 21:59		22:00 - 05:59		06:00 - 21:59		00:00 - 23:59	
Days				1		1		1		1		1	
				AT [veh./h]	AT [veh./13h]	AT [veh./h]	AT [veh./3h]	AT [veh./h]	AT [veh./8h]	AT [veh./h]	AT [veh./16h]	AT [veh./h]	ADT [veh./24h]
Weekday traffic:	Mon - Fri	1	T	274	3552	96	285	29	229	240	3837	169	4067
Weekend traffic:	Sat - Sun	0	T										
Total traffic:		1	T	274	3552	96	285	29	229	240	3837	169	4067



Detailed evaluation Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

Evaluation:				Peak hours				K - Factors		
	From - To	Days	Dir.	From mean values		Absolute		K6	K16	K200
From - To								06:00 - 08:59	06:00 - 21:59	Peak hour
				Time	[veh./h]	Date, time	[veh./h]	15:00 - 17:59		
Weekday traffic:	Mon - Fri	1	T	07:00	378	3/16/2018, 07:00	378	0.449	0.943	0.093
Weekend traffic:	Sat - Sun	0	T							
Total traffic:		1	T	07:00	378	3/16/2018, 07:00	378	0.449	0.943	0.093

Legend to K-factors:

K(I) -factor: vehicles in period1+2 / ADT

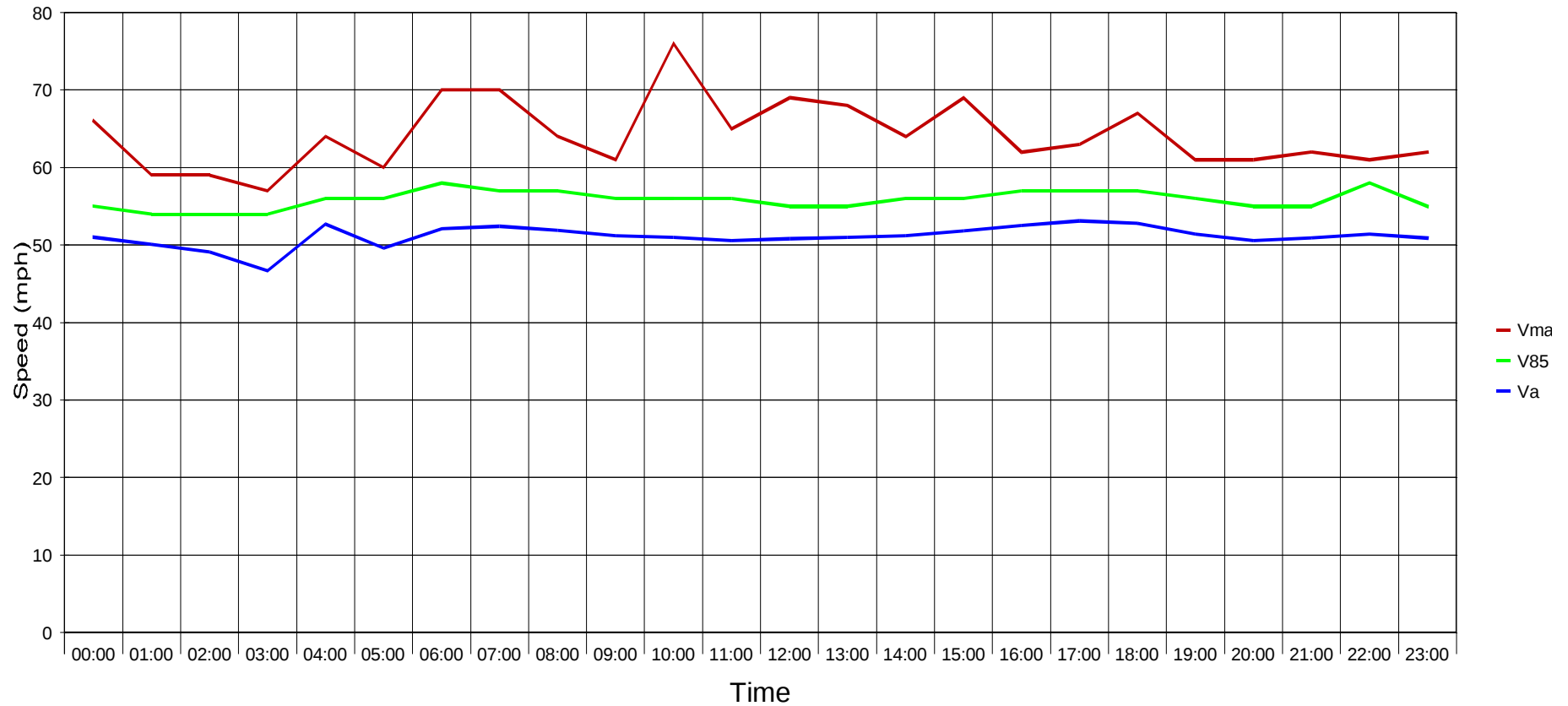
K(J) -factor: vehicles in 16 hrs. period /ADT

K(200)-factor: vehicles in peak hour /ADT





US Route 9 SB, 1,140 feet south of Richwood Drive



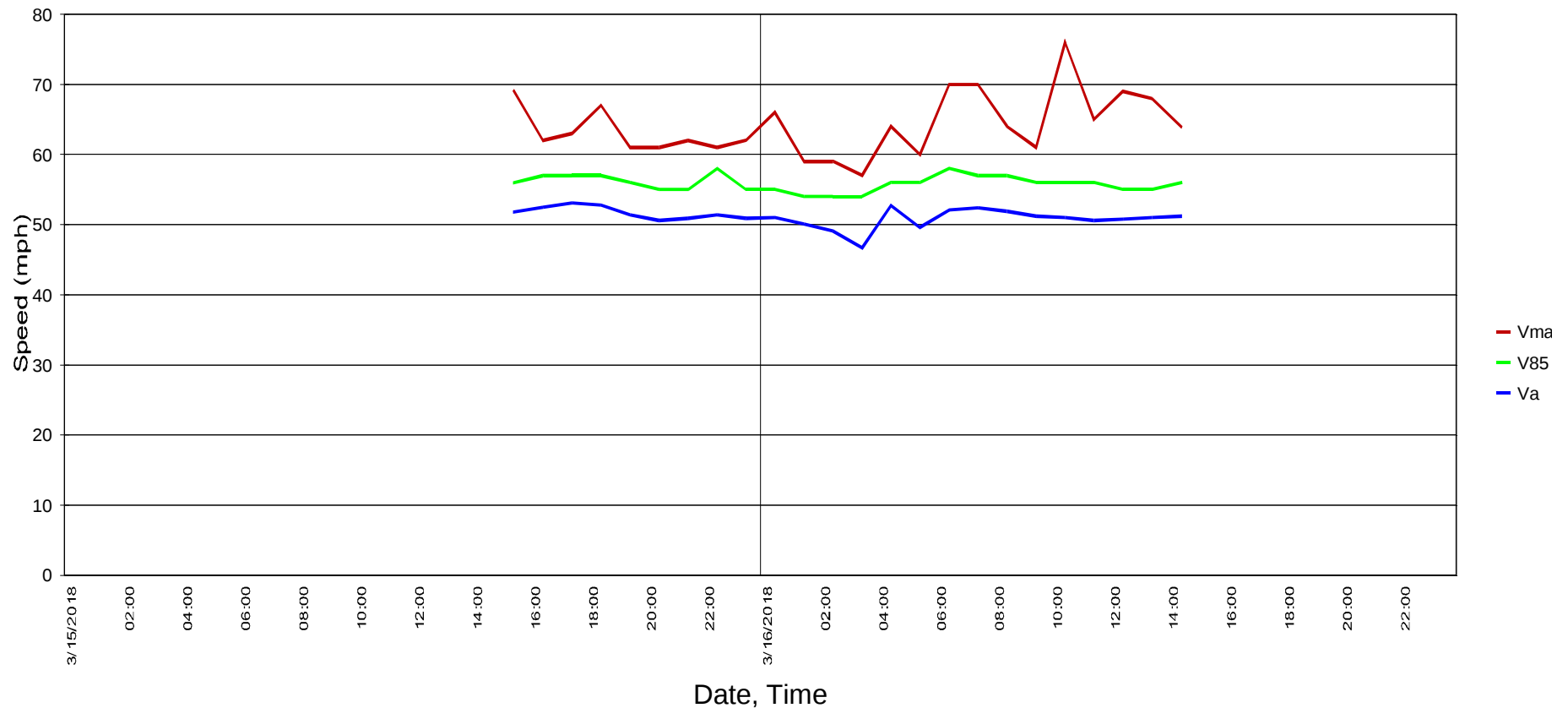
Statistics

Period: Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

		Count	%	V15	Va	V85	Vmax
Speed violations:	20 %	F-1	37	1	43	50	56
Average time interval:	1.4 sec	F-2,F-3	3523	92.3	47	52	56
Traffic in column:	24 %	F-4,-5,-6,-7	182	4.8	45	50	55
ADT:	3815	F-8,-9,-10	73	1.9	42	47	51
Truck Share:	7 %	Total	3815	100	47	52	56



US Route 9 SB, 1,140 feet south of Richwood Drive



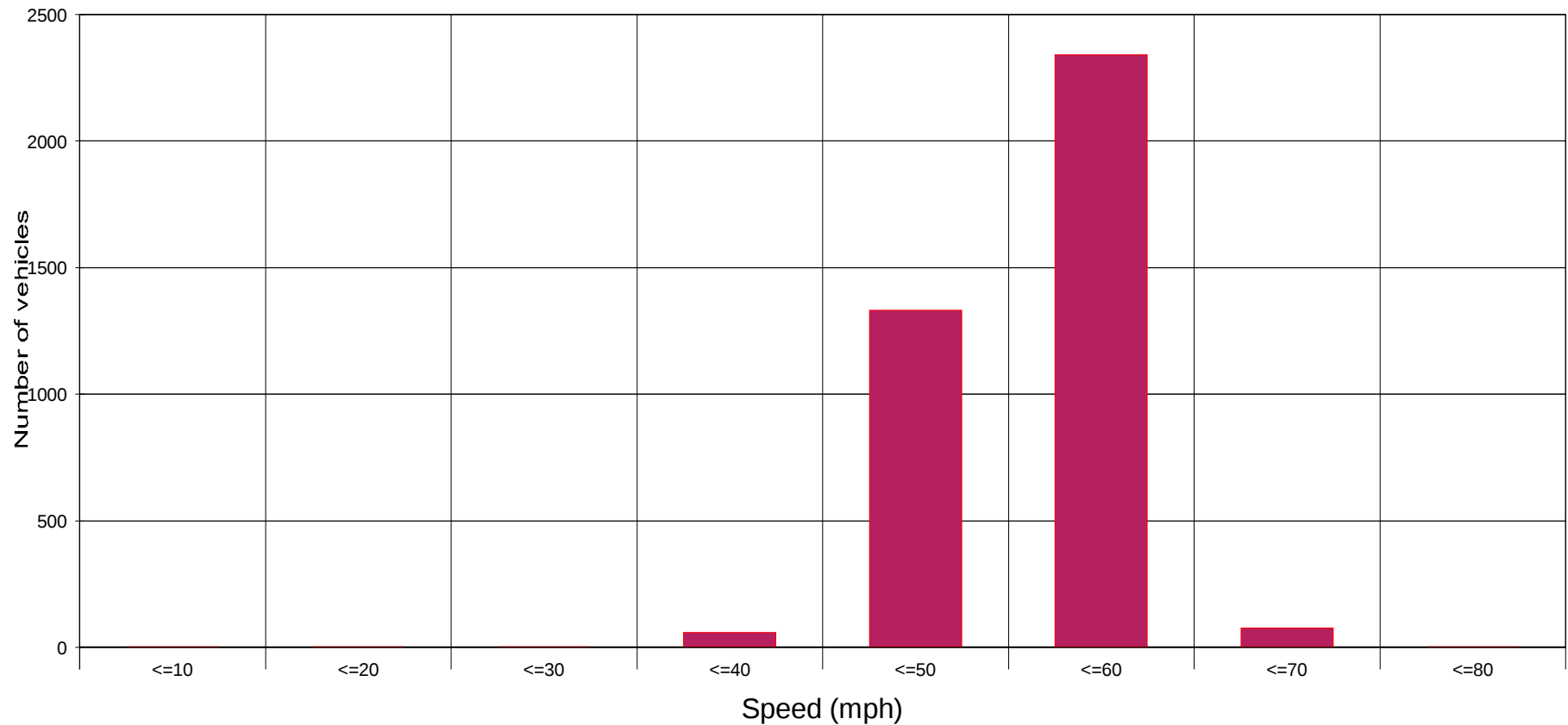
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Truck Share:	7 %	Total	3815	100	47	52	56



US Route 9 SB, 1,140 feet south of Richwood Drive



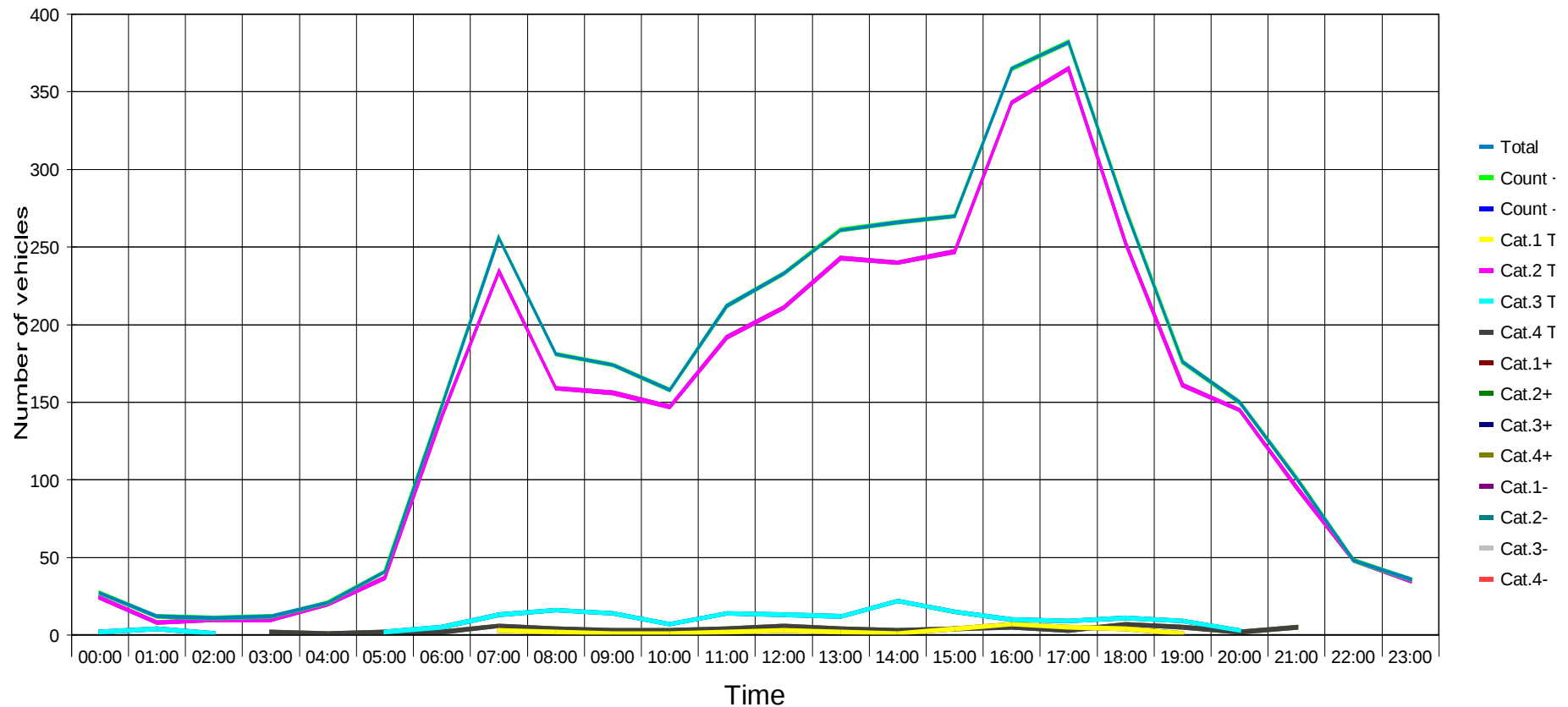
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US Route 9 SB, 1,140 feet south of Richwood Drive



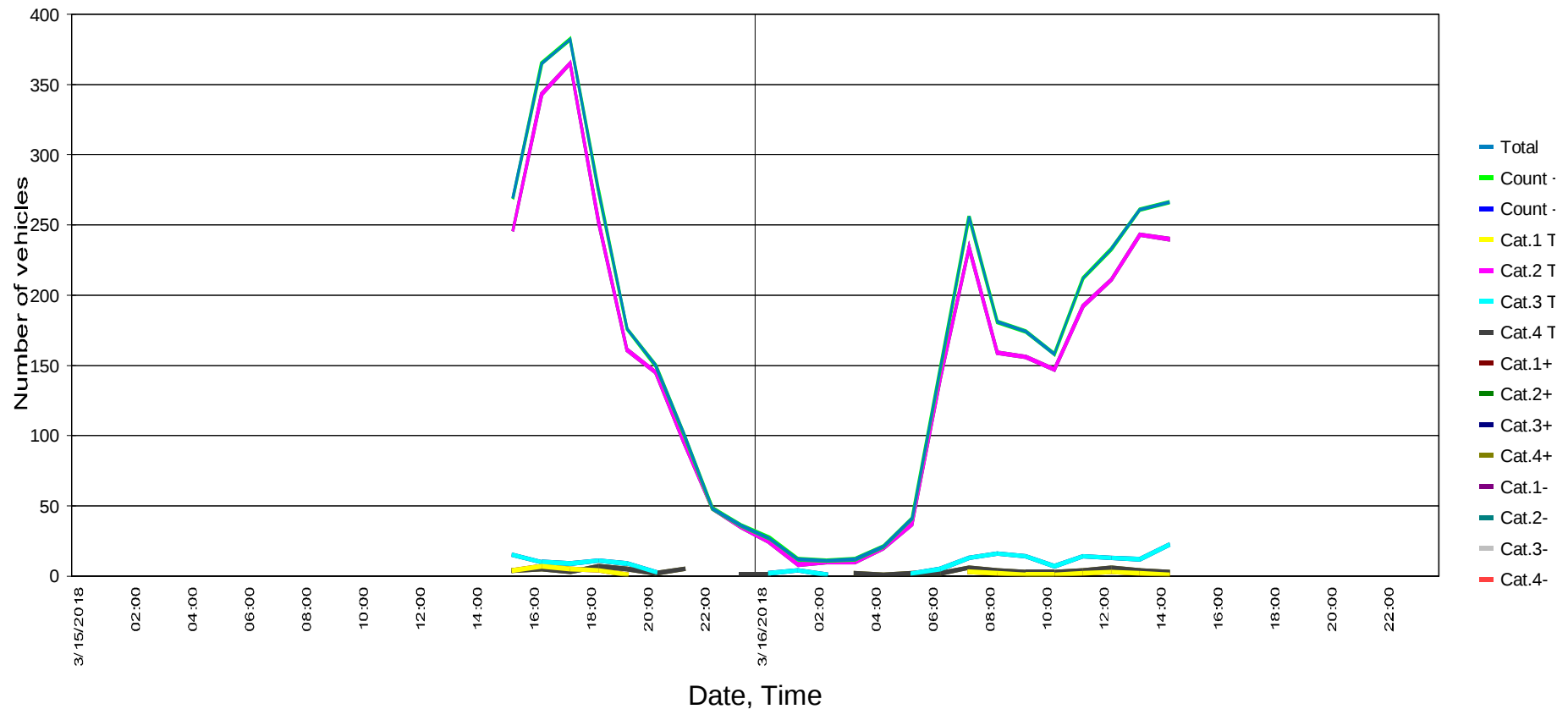
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US Route 9 SB, 1,140 feet south of Richwood Drive



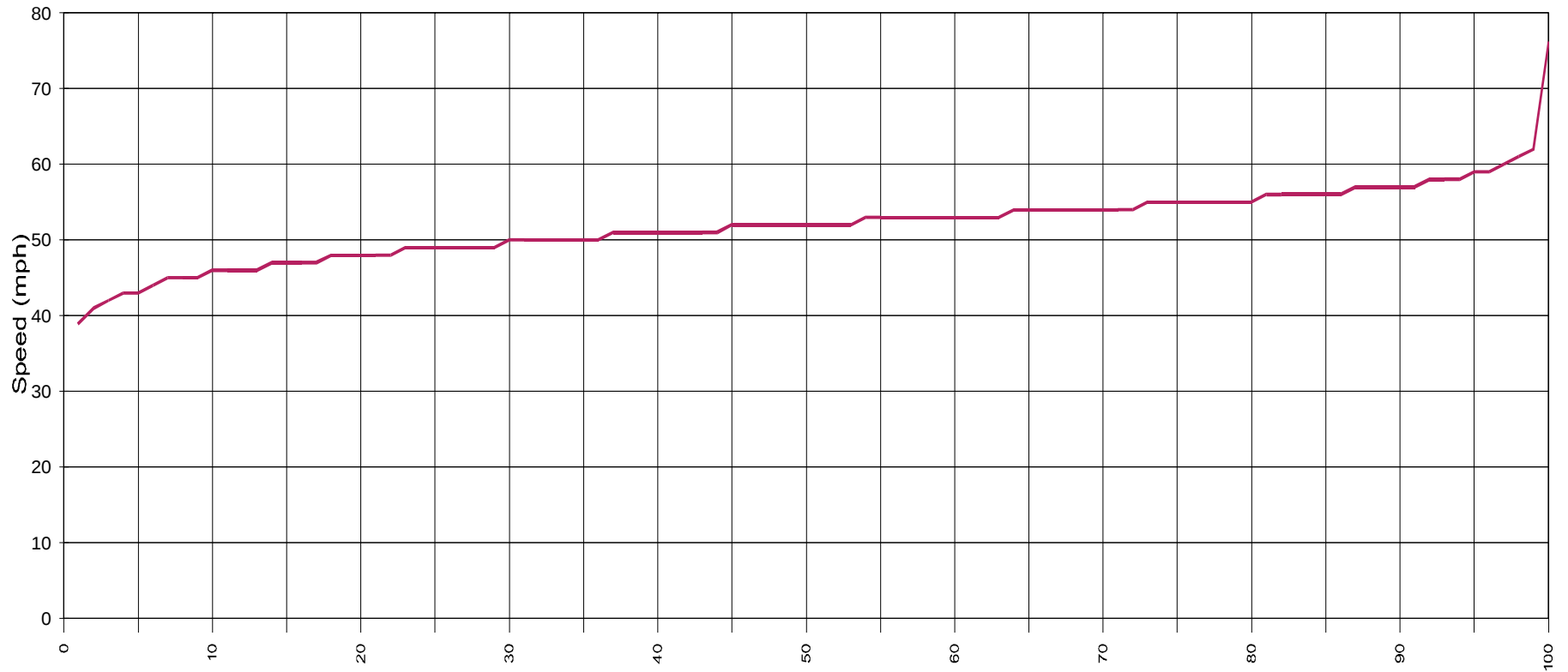
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Average time interval:	1.4 sec	F-2,F-3	3523	92.3	47	52	76
Traffic in column:	24 %	F-4,-5,-6,-7	182	4.8	45	50	61
ADT:	3815	F-8,-9,-10	73	1.9	42	47	61
Truck Share:	7 %	Total	3815	100	47	52	76



US Route 9 SB, 1,140 feet south of Richwood Drive



Vx (%) Comment: x % of vehicles are driving at or below y mph

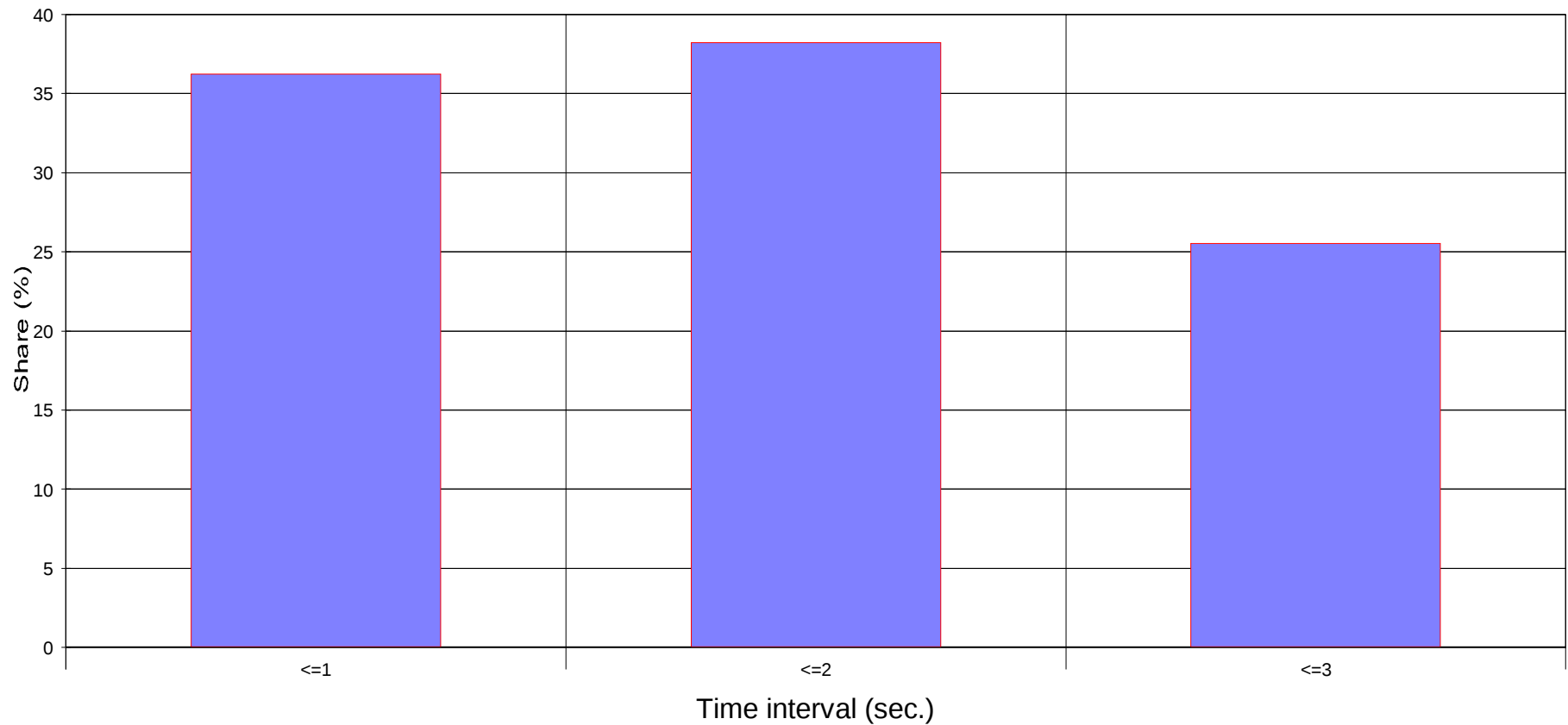
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US Route 9 SB, 1,140 feet south of Richwood Drive



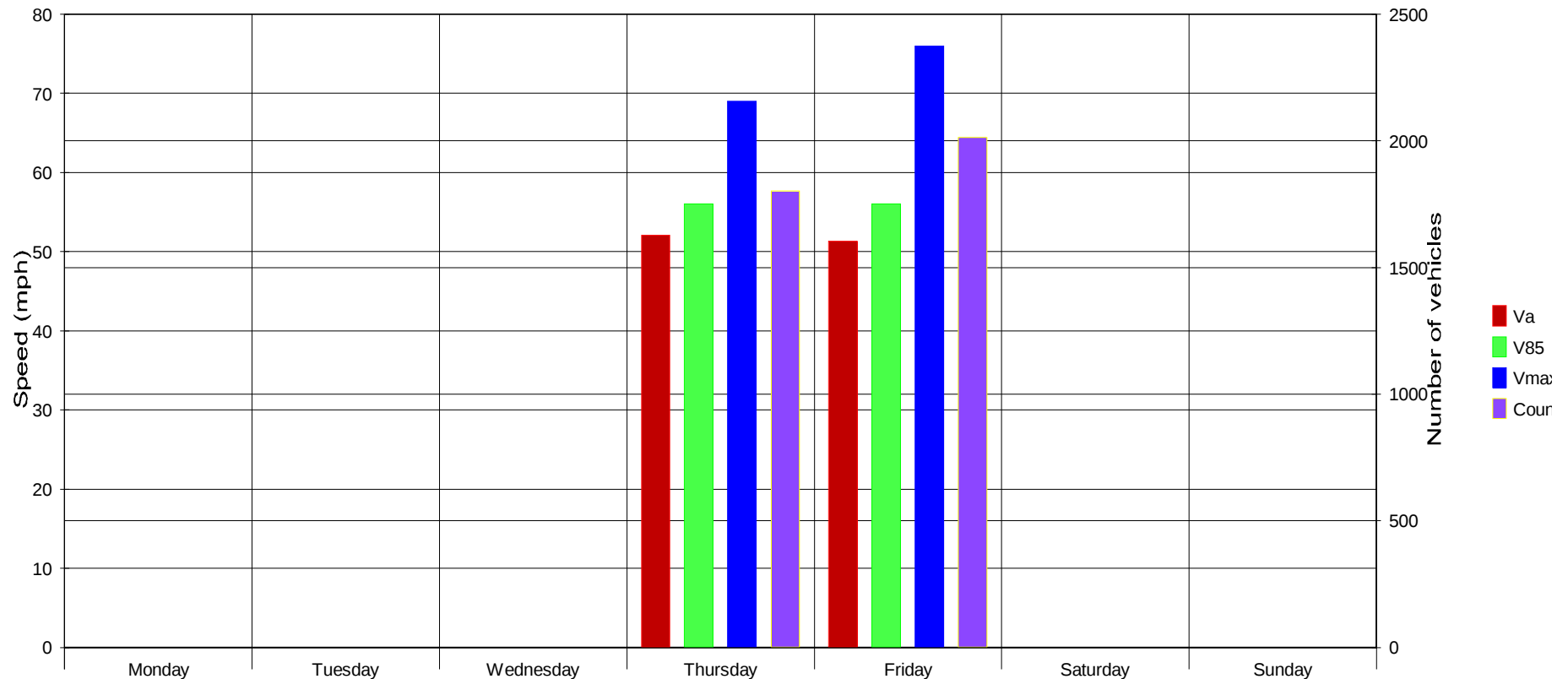
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Speed violations:	20 %	F-1	37	1	43	50	56
Average time interval:	1.4 sec	F-2,F-3	3523	92.3	47	52	56
Traffic in column:	24 %	F-4,-5,-6,-7	182	4.8	45	50	55
ADT:	3815	F-8,-9,-10	73	1.9	42	47	51
Truck Share:	7 %	Total	3815	100	47	52	56



US Route 9 SB, 1,140 feet south of Richwood Drive



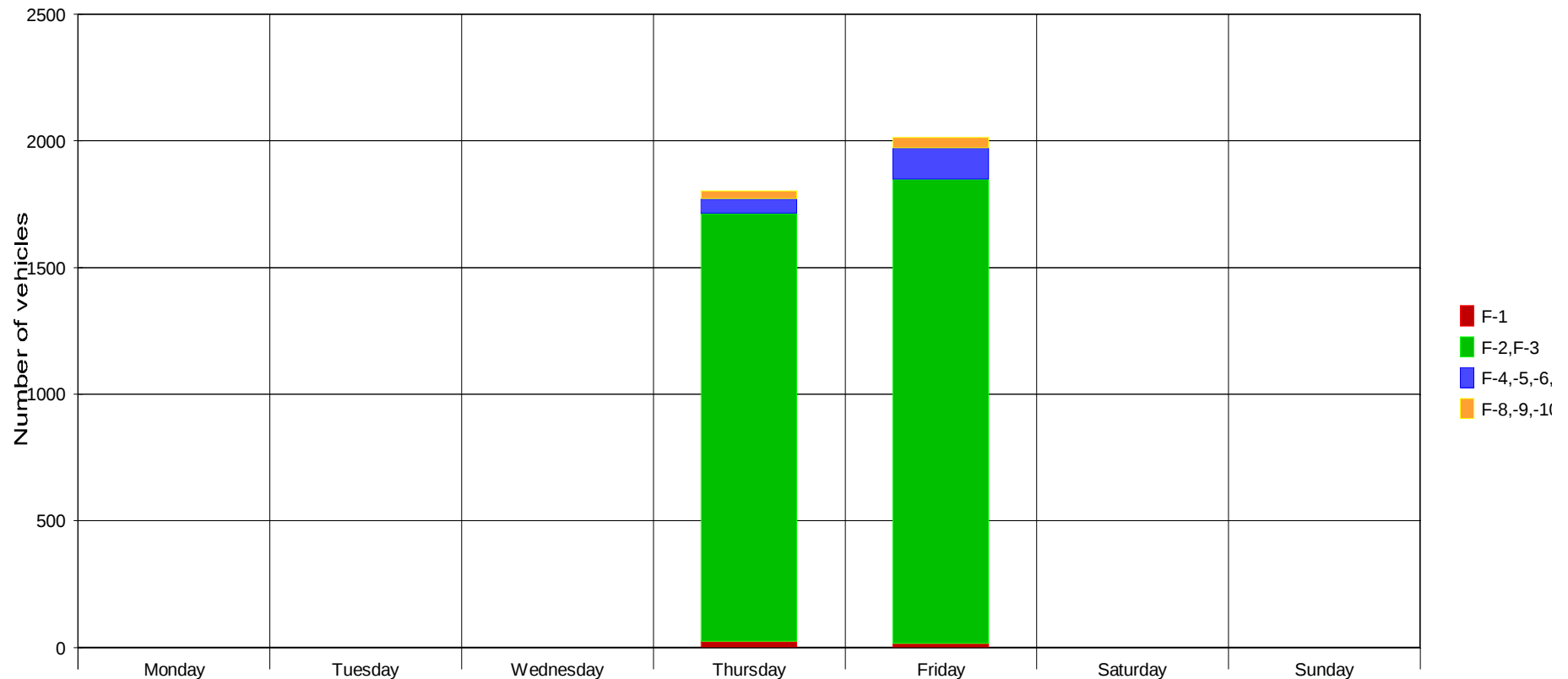
Statistics

Period: Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

		Count	%	V15	Va	V85	Vmax
Speed violations:	20 %	F-1	37	1	43	50	56
Average time interval:	1.4 sec	F-2,F-3	3523	92.3	47	52	56
Traffic in column:	24 %	F-4,-5,-6,-7	182	4.8	45	50	55
ADT:	3815	F-8,-9,-10	73	1.9	42	47	51
Truck Share:	7 %	Total	3815	100	47	52	56



US Route 9 SB, 1,140 feet south of Richwood Drive



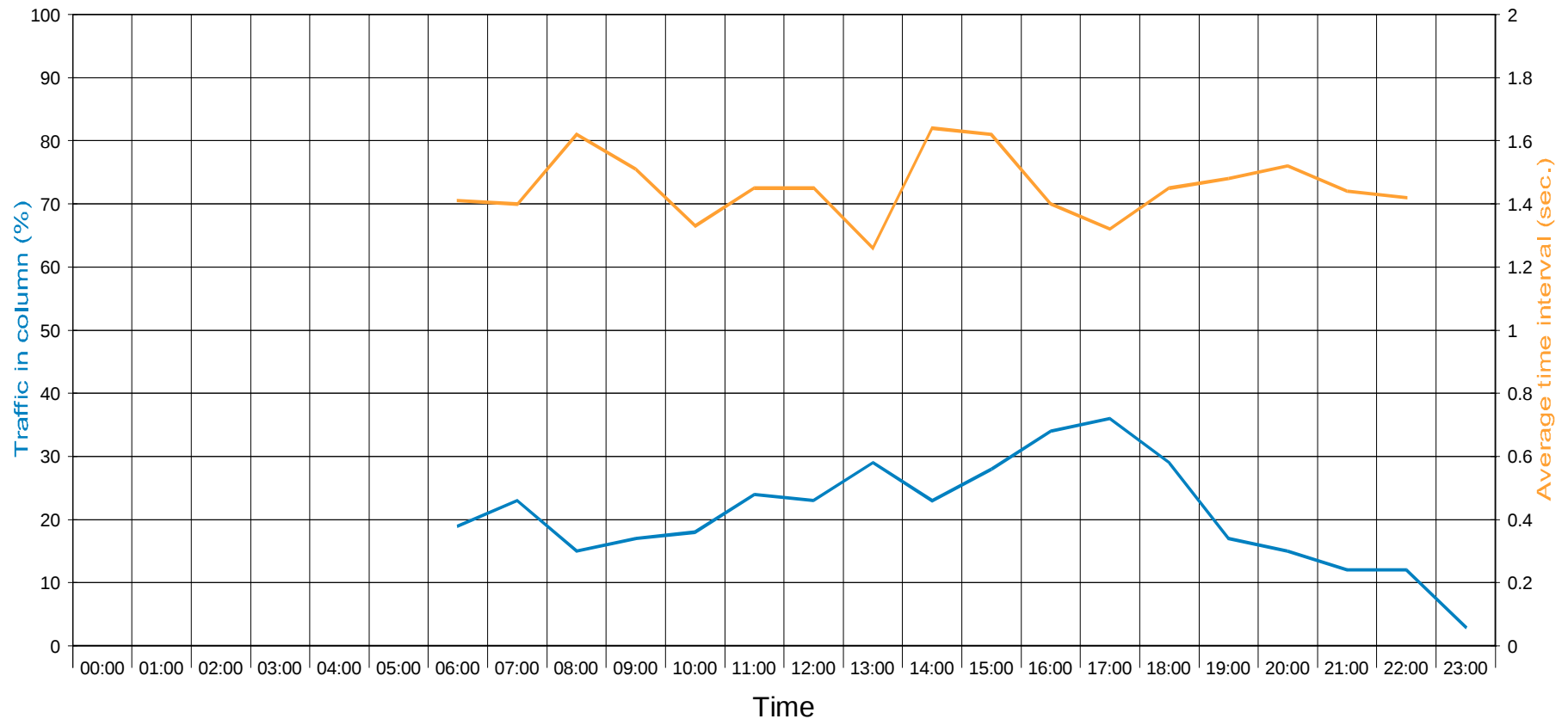
Statistics

Period: Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

		Count	%	V15	Va	V85	Vmax
Speed violations:	20 %	F-1	37	1	43	50	56
Average time interval:	1.4 sec	F-2,F-3	3523	92.3	47	52	56
Traffic in column:	24 %	F-4,-5,-6,-7	182	4.8	45	50	55
ADT:	3815	F-8,-9,-10	73	1.9	42	47	51
Truck Share:	7 %	Total	3815	100	47	52	56



US Route 9 SB, 1,140 feet south of Richwood Drive



Statistics

Period: Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

		Count	%	V15	Va	V85	Vmax
Speed violations:	20 %	F-1	37	1	43	50	56
Average time interval:	1.4 sec	F-2,F-3	3523	92.3	47	52	56
Traffic in column:	24 %	F-4,-5,-6,-7	182	4.8	45	50	55
ADT:	3815	F-8,-9,-10	73	1.9	42	47	51
Truck Share:	7 %	Total	3815	100	47	52	56

Detailed evaluation Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

	Evaluation:	F-2,F-3					F-4,-5,-6,-,7					F-8,-9,-10					F-4,-5,-6,-,7 + F-8,-9,-10					Total:				
		Count	Share [%]	Va mph	V85 mph	Vmax mph	Count	Share [%]	Va mph	V85 mph	Vmax mph	Count	Share [%]	Va mph	V85 mph	Vmax mph	Count	Share [%]	Va mph	V85 mph	Vmax mph	Count	Share [%]	Va mph	V85 mph	Vmax mph
Direction +	Day:	2926	92.2	52	57	76	160	5	50	55	61	54	1.7	47	51	61	214	6.7	49	54	61	3175	83.2	52	56	76
	Evening:	400	93.9	51	55	62	12	2.8	52	55	57	12	2.8	47	50	53	24	5.6	49	53	57	426	11.2	51	55	62
	Night:	190	92.7	51	56	66	8	3.9	49	54	54	7	3.4	45	49	54	15	7.3	47	54	54	205	5.4	51	56	66
	16 Hours:	3330	92.3	52	56	76	173	4.8	50	55	61	66	1.8	47	51	61	239	6.6	49	54	61	3606	94.5	52	56	76
	Weekday traffic:	3523	92.3	52	56	76	182	4.8	50	55	61	73	1.9	47	51	61	255	6.7	49	54	61	3815	100	52	56	76
	Weekend traffic:																									
	Total traffic:	3523	92.3	52	56	76	182	4.8	50	55	61	73	1.9	47	51	61	255	6.7	49	54	61	3815	100	52	56	76
Direction -	Day:	0	0				0	0				0	0				0	0				0	0			
	Evening:	0	0				0	0				0	0				0	0				0	0			
	Night:	0	0				0	0				0	0				0	0				0	0			
	16 Hours:	0	0				0	0				0	0				0	0				0	0			
	Weekday traffic:	0	0				0	0				0	0				0	0				0	0			
	Weekend traffic:																									
	Total traffic:	0	0				0	0				0	0				0	0				0	0			
Total	Day:	2926	92.2	52	57	76	160	5	50	55	61	54	1.7	47	51	61	214	6.7	49	54	61	3175	83.2	52	56	76
	Evening:	400	93.9	51	55	62	12	2.8	52	55	57	12	2.8	47	50	53	24	5.6	49	53	57	426	11.2	51	55	62
	Night:	190	92.7	51	56	66	8	3.9	49	54	54	7	3.4	45	49	54	15	7.3	47	54	54	205	5.4	51	56	66
	16 Hours:	3330	92.3	52	56	76	173	4.8	50	55	61	66	1.8	47	51	61	239	6.6	49	54	61	3606	94.5	52	56	76
	Weekday traffic:	3523	92.3	52	56	76	182	4.8	50	55	61	73	1.9	47	51	61	255	6.7	49	54	61	3815	100	52	56	76
	Weekend traffic:																									
	Total traffic:	3523	92.3	52	56	76	182	4.8	50	55	61	73	1.9	47	51	61	255	6.7	49	54	61	3815	100	52	56	76



Detailed evaluation Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

Evaluation:				Average Traffic									
	From - To	Days	Dir.	Day:		Evening:		Night:		16 Hours:		ADT	
From - To				06:00 - 18:59		19:00 - 21:59		22:00 - 05:59		06:00 - 21:59		00:00 - 23:59	
Days				1		1		1		1		1	
				AT [veh./h]	AT [veh./13h]	AT [veh./h]	AT [veh./3h]	AT [veh./h]	AT [veh./8h]	AT [veh./h]	AT [veh./16h]	AT [veh./h]	ADT [veh./24h]
Weekday traffic:	Mon - Fri	1	+	245	3175	143	426	26	205	226	3606	159	3815
			-	0	0	0	0	0	0	0	0	0	0
			T	245	3175	143	426	26	205	226	3606	159	3815
Weekend traffic:	Sat - Sun	0	+										
			-										
			T										
Total traffic:		1	+	245	3175	143	426	26	205	226	3606	159	3815
			-	0	0	0	0	0	0	0	0	0	0
			T	245	3175	143	426	26	205	226	3606	159	3815



Detailed evaluation Thursday, March 15, 2018, 15:00 o'clock to Friday, March 16, 2018, 15:00 o'clock

Evaluation:				Peak hours				K - Factors		
	From - To	Days	Dir.	From mean values		Absolute		K6	K16	K200
From - To								06:00 - 08:59	06:00 - 21:59	Peak hour
				Time	[veh./h]	Date, time	[veh./h]	15:00 - 17:59		
Weekday traffic:	Mon - Fri	1	+	16:45	406	3/15/2018, 16:45	406	0.418	0.945	0.106
			-	00:00	0	0	0	0	0	0
			T	16:45	406	3/15/2018, 16:45	406	0.418	0.945	0.106
Weekend traffic:	Sat - Sun	0	+							
			-							
			T							
Total traffic:		1	+	16:45	406	3/15/2018, 16:45	406	0.418	0.945	0.106
			-	00:00	0	0	0	0	0	0
			T	16:45	406	3/15/2018, 16:45	406	0.418	0.945	0.106

Legend to K-factors:

K(I) -factor: vehicles in period1+2 / ADT

K(J) -factor: vehicles in 16 hrs. period /ADT

K(200)-factor: vehicles in peak hour /ADT



APPENDIX B

TRAFFIC CALCULATIONS

- Hourly Trip Generation Volumes for Similar Sales Distribution Center
- Volume Calculation Table
- AM/PM Trip Generation Figures from Traffic Impact Study completed by McFarland Johnson dated March 29, 2018.
- 2019 Build Volumes Figure from Traffic Impact Study completed by McFarland Johnson dated March 29, 2018
- Sight Distance Figure

TRIP GENERATION TABLE - SIMILAR FACILITY

Hour	Trailer Arrival	Trailer Departure	Box Truck Arrival	Box Truck Departure	Auto Arrival	Auto Departure	Full Day Arrival	Full Day Departure
00:00 - 01:00	13	9	5	8	0	140	19	158
01:00 - 02:00	10	13	11	5	140	0	161	19
02:00 - 03:00	13	10	20	11	94	0	127	21
03:00 - 04:00	17	13	16	20	0	0	33	34
04:00 - 05:00	22	17	2	16	0	0	24	33
05:00 - 06:00	14	22	0	2	0	0	14	24
06:00 - 07:00	10	14	0	0	0	94	10	108
07:00 - 08:00	7	10	0	0	0	140	7	150
08:00 - 09:00	5	7	0	0	140	0	145	7
09:00 - 10:00	3	5	0	0	94	0	97	5
10:00 - 11:00	8	3	0	0	0	0	8	3
11:00 - 12:00	7	8	1	0	0	0	7	8
12:00 - 13:00	5	7	3	1	0	94	8	101
13:00 - 14:00	6	5	4	3	0	140	9	148
14:00 - 15:00	8	6	0	4	140	0	149	9
15:00 - 16:00	9	8	0	0	94	0	103	8
16:00 - 17:00	9	9	0	0	0	0	9	9
17:00 - 18:00	11	9	0	0	0	94	11	103
18:00 - 19:00	13	11	0	0	0	140	13	151
19:00 - 20:00	21	13	0	0	140	0	161	13
20:00 - 21:00	21	21	0	0	94	0	115	21
21:00 - 22:00	20	21	3	0	0	0	23	21
22:00 - 23:00	14	20	11	3	0	0	26	23
23:00 - 24:00	9	14	8	11	0	94	18	119
TOTAL	275	275	84	84	936	936	1297	1296

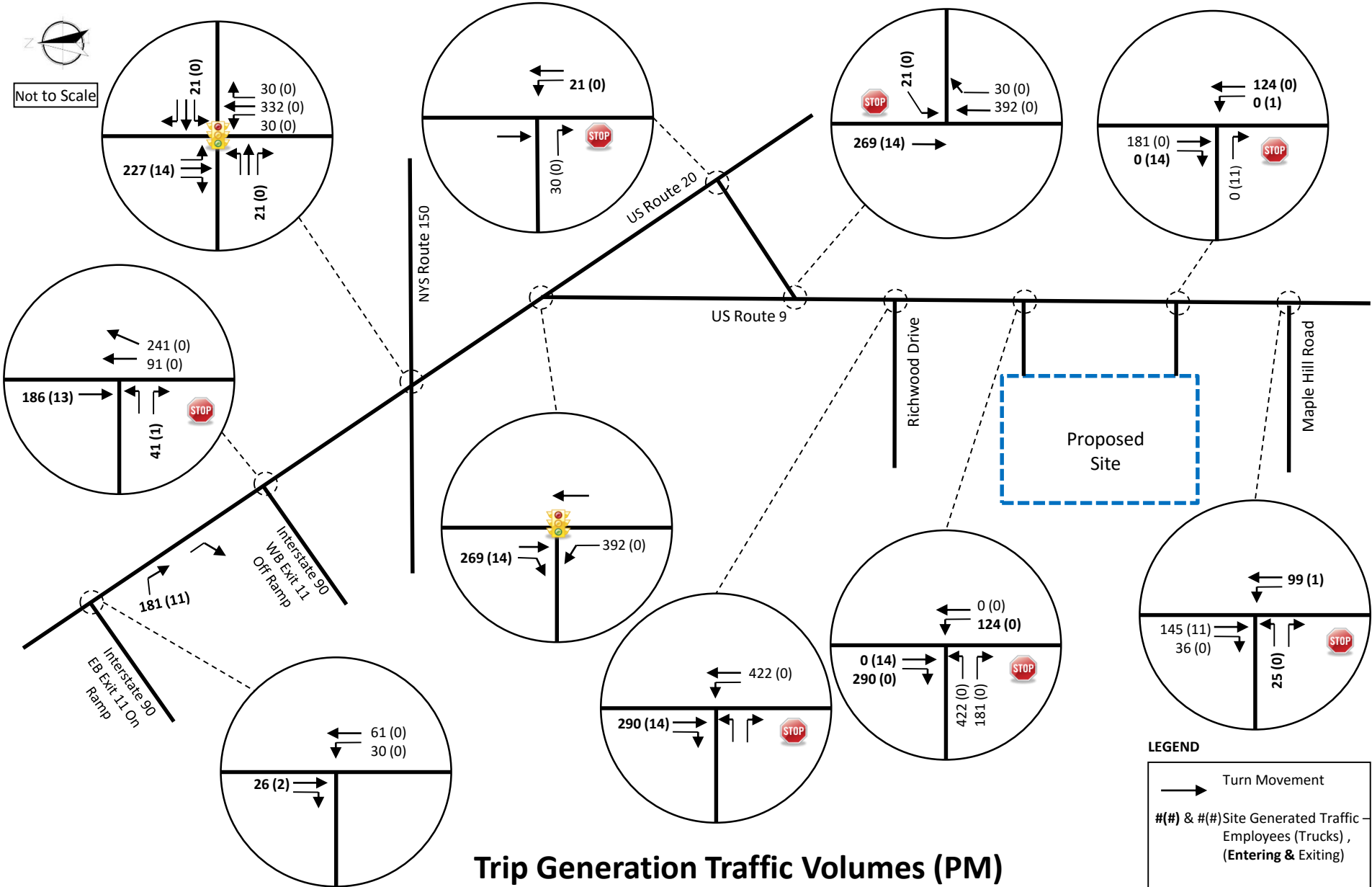
SCHODACK DISTRIBUTION CENTER

Study Intersection	Approach and Movement		MORNING PEAK HOUR									
			2019 BASE	2021 BASE	2022 NO-BUILD	ENTERING EMPLOYEES TRIP GEN %	EXITING EMPLOYEES TRIP GEN %	ENTERING TRUCKS TRIP GEN %	EXITING TRUCKS TRIP GEN %	2022 BUILD		
										EMPLOYEE TRIPS	TRUCK TRIPS	TOTAL
US Route 9/20 at NYS Route 150 (Schodack Valley Rd) (Signalized)	Eastbound	L	88	90	91		55%		90%	77	15	183
		T	20	20	21		5%		0%	7	0	28
		R	54	55	56		30%		10%	42	2	99
	Westbound	L	112	114	115					0	0	115
		T	13	13	13	5%		0%	0%	7	0	20
		R	182	186	187					0	0	187
	Northbound	L	10	10	10	30%		10%		42	1	54
		T	1009	1029	1039					0	0	1039
		R	21	21	22					0	0	22
	Southbound	L	40	41	41					0	0	41
		T	722	736	744					0	0	744
		R	13	13	13	55%		90%		77	11	101
US Route 9 at US Route 20 (Signalized)	Northbound	L	394	402	406	5%		0%		7	0	413
		T	240	245	247		5%		0%	7	0	254
	Southeastbound	R	627	640	646		25%		10%	35	2	683
	Northwestbound	T	638	651	657	30%		10%		42	1	700
US Route 9 at US Route 20 East (Un-Signalized)	Eastbound	R	12	12	12					0	0	12
		T	240	245	247		5%		0%	7	0	254
	Northwestbound	L	39	40	40					0	0	40
		T	638	651	657	5%		0%		7	0	664
US Route 9 at US Route 20 West (Un-Signalized)	Westbound	L	39	40	40					0	0	40
		T	394	402	406	25%		10%		35	1	442
	Northbound	R	12	12	12					0	0	12
		T	627	640	646		25%		10%	35	2	683
US Route 9 at Richwood Drive (Un-Signalized)	Eastbound	L	24	24	25					0	0	25
		R	7	7	7					0	0	7
	Northbound	L	1	1	1					0	0	1
		T	380	388	391	25%		10%		35	1	428
	Southbound	T	659	672	679		25%		10%	35	2	716
		R	7	7	7					0	0	7
US Route 9 at Amazon Distribution Center Employee Driveway (Signalized)	Eastbound	L	4	4	4					0	0	4
		R	2	2	2					0	0	2
	Northbound	L	169	172	174					0	0	174
		T	402	410	414	25%		10%		35	1	450
	Southbound	T	265	270	273		25%		10%	35	2	310
		R	400	408	412					0	0	412
US Route 9 at Amazon Distribution Center Truck Driveway (Un-Signalized)	Eastbound	R	3	3	3					0	0	3
		L	0	0	0					0	0	0
	Northbound	T	571	582	588	25%		10%		35	1	624
		T	266	271	274		25%		10%	35	2	311
	Southbound	R	1	1	1					0	0	1
		L	22	22	23					0	0	23
Interstate 90 WB Exit 11 Off Ramp (Un-Signalized)	Eastbound	R	69	70	71	10%		10%		14	1	86
		T	438	447	451		15%		20%	21	3	476
	Northbound	R	840	858	866		40%		70%	56	12	934
		T	700	714	721	45%		80%		63	10	794
	Southbound	L	11	11	11		5%		15%	7	3	21
		T	461	470	475		10%		5%	14	1	490
Interstate 90 EB Exit 11 On Ramp (Un-Signalized)	Northbound	T	256	261	264	10%		10%		14	1	279
		R	52	53	54					0	0	54
	Southbound	L							100%	0	17	17
		R				10%		0%		14	0	14
	Westbound	L				90%		0%		126	0	126
		T								0	0	0
NYS Route 150 at Proposed Employee Driveway (Un-Signalized)	Northbound	L					10%		0%	14	0	14
		R					90%		0%	126	0	126
	Eastbound	T							100%	126	17	143
		R					0%		0%	0	0	0
	Westbound	L				0%		100%		0	12	12
		T				90%		0%		126	0	126
NYS Route 150 at Proposed Truck Entrance Driveway (Un-Signalized)	Eastbound	T								0	0	0
		R								0	0	0
	Westbound	L				0%				0	12	12
		T				90%		0%		126	0	126
NYS Route 150 at Proposed Truck Exit Driveway (Un-Signalized)	Eastbound	T				10%		0%		14	0	14
		R					10%		0%	14	0	14
	Westbound	T							100%	0	17	17
		R								0	0	0

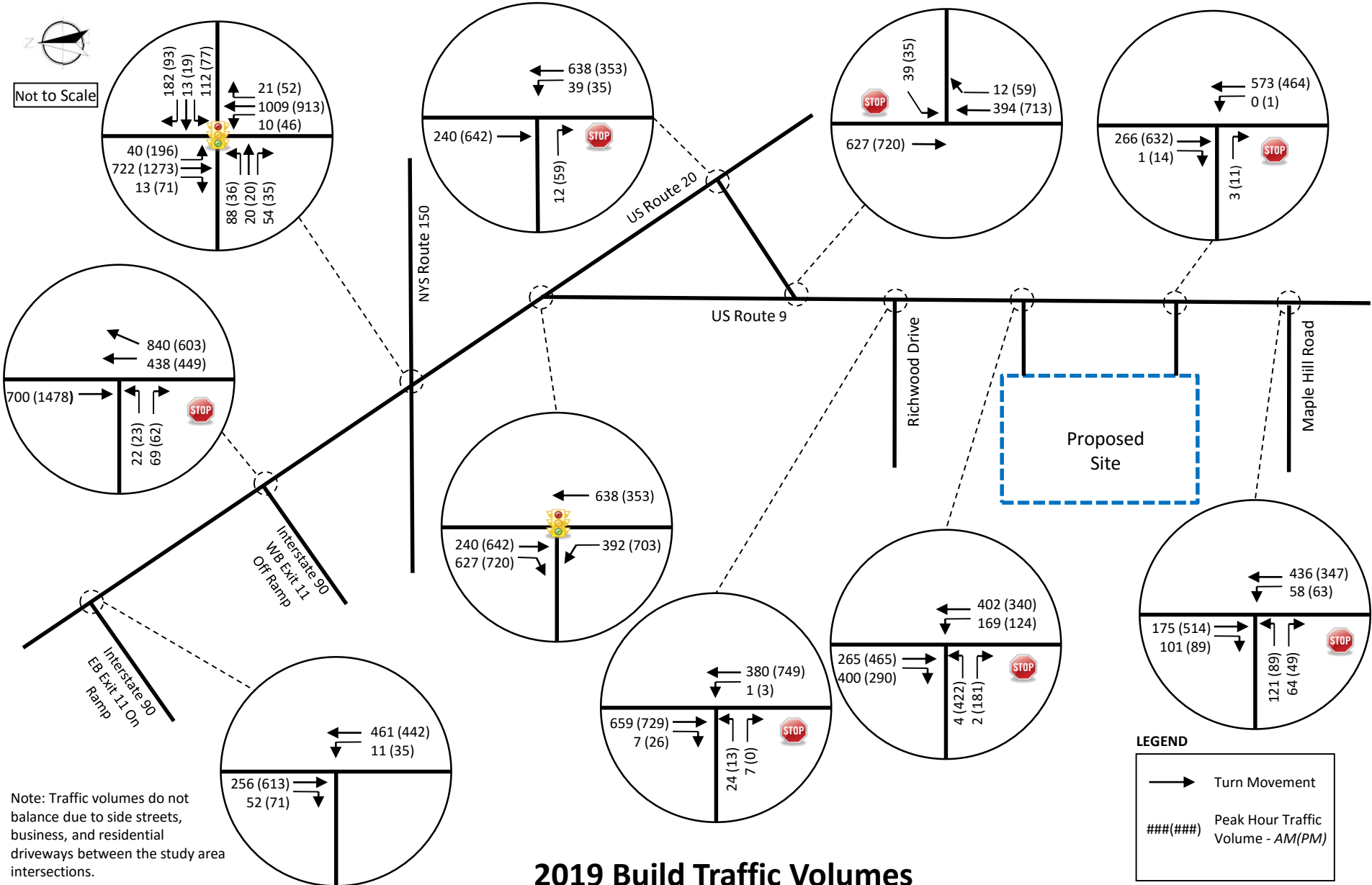
SCHODACK DISTRIBUTION CENTER

Study Intersection	Approach and Movement		EVENING PEAK HOUR									
			2019 BASE	2021 BASE	2022 NO-BUILD	ENTERING EMPLOYEE TRIP GEN %	EXITING EMPLOYEE TRIP GEN %	ENTERING EMPLOYEE TRIP GEN %	EXITING EMPLOYEE TRIP GEN %	2022 BUILD		
										EMPLOYEE TRIPS	TRUCK TRIPS	TOTAL
US Route 9/20 at NYS Route 150 (Schodack Valley Rd) (Signalized)	Eastbound	L	36	37	37		55%		90%	77	22	136
		T	20	20	21		5%		0%	7	0	28
		R	35	36	36		30%		10%	42	2	80
	Westbound	L	77	79	79					0	0	79
		T	19	19	20	5%		0%	0%	7	0	27
		R	93	95	96					0	0	96
	Northbound	L	46	47	47	30%		10%		42	3	93
		T	913	931	941					0	0	941
		R	52	53	54					0	0	54
	Southbound	L	196	200	202					0	0	202
		T	1273	1298	1311					0	0	1311
		R	71	72	73	55%		90%		77	31	181
US Route 9 at US Route 20 (Signalized)	Northbound	L	713	727	735	5%		0%		7	0	780
		T	642	655	661		5%	0%	0%	7	0	668
	Southeastbound	R	720	734	742		25%		10%	35	2	779
		T	353	360	364	30%		10%		42	3	409
US Route 9 at US Route 20 East (Un-Signalized)	Eastbound	R	59	60	61					0	0	61
		T	642	655	661		5%		0%	7	0	668
	Northwestbound	L	35	36	36					0	0	36
		T	353	360	364	5%		0%		7	0	409
US Route 9 at US Route 20 West (Un-Signalized)	Westbound	L	35	36	36					0	0	36
		T	713	727	735	25%		10%		35	3	780
	Northbound	R	59	60	61					0	0	61
		T	720	734	742		25%		10%	35	2	779
US Route 9 at Richwood Drive (Un-Signalized)	Eastbound	L	13	13	13					0	0	13
		R	0	0	0					0	0	0
	Northbound	L	3	3	3					0	0	3
		T	749	764	772	25%		10%		35	3	810
	Southbound	T	729	744	751		25%		10%	35	2	788
		R	26	27	27					0	0	27
US Route 9 at Amazon Distribution Center Employee Driveway (Signalized)	Eastbound	L	422	430	435					0	0	435
		R	181	185	186					0	0	186
	Northbound	L	124	126	128					0	0	128
		T	340	347	350	25%		10%		35	3	389
	Southbound	L	465	474	479		25%		10%	35	2	516
		R	290	296	299					0	0	299
US Route 9 at Amazon Distribution Center Truck Driveway (Un-Signalized)	Eastbound	R	11	11	11					0	0	11
		L	1	1	1					0	0	1
	Northbound	T	464	473	478	25%		10%		35	3	517
		R	632	645	651		25%		10%	35	2	688
Interstate 90 WB Exit 11 Off Ramp (Un-Signalized)	Southbound	R	14	14	14					0	0	14
		L	23	23	24					0	0	24
	Eastbound	R	62	63	64	10%		10%		14	3	81
		T	449	458	463		15%		20%	21	5	488
	Northbound	R	593	605	611		40%		70%	56	17	684
		T	1478	1508	1523	45%		80%		63	27	1613
Interstate 90 EB Exit 11 On Ramp (Un-Signalized)	Southbound	L	35	36	36		5%		15%	7	4	47
		T	442	451	455		10%		5%	14	1	471
	Northbound	T	613	625	632	10%		10%		14	3	649
		R	71	72	73					0	0	73
	Eastbound	T							100%	0	24	24
		R				10%		0%		14	0	14
NYS Route 150 at Proposed Employee Driveway (Un-Signalized)	Westbound	L				90%		0%		126	0	126
		T					10%		0%	0	0	0
	Northbound	L					90%		0%	14	0	14
		R							0%	126	0	126
NYS Route 150 at Proposed Truck Entrance Driveway (Un-Signalized)	Eastbound	T					90%		100%	126	24	150
		R					0%		0%	0	0	0
	Westbound	L				0%		100%		0	34	34
		T				90%		0%		126	0	126
NYS Route 150 at Proposed Truck Exit Driveway (Un-Signalized)	Eastbound	T				10%		0%		14	0	14
		R					10%		0%	14	0	14
	Northbound	T					0%		100%	0	24	24



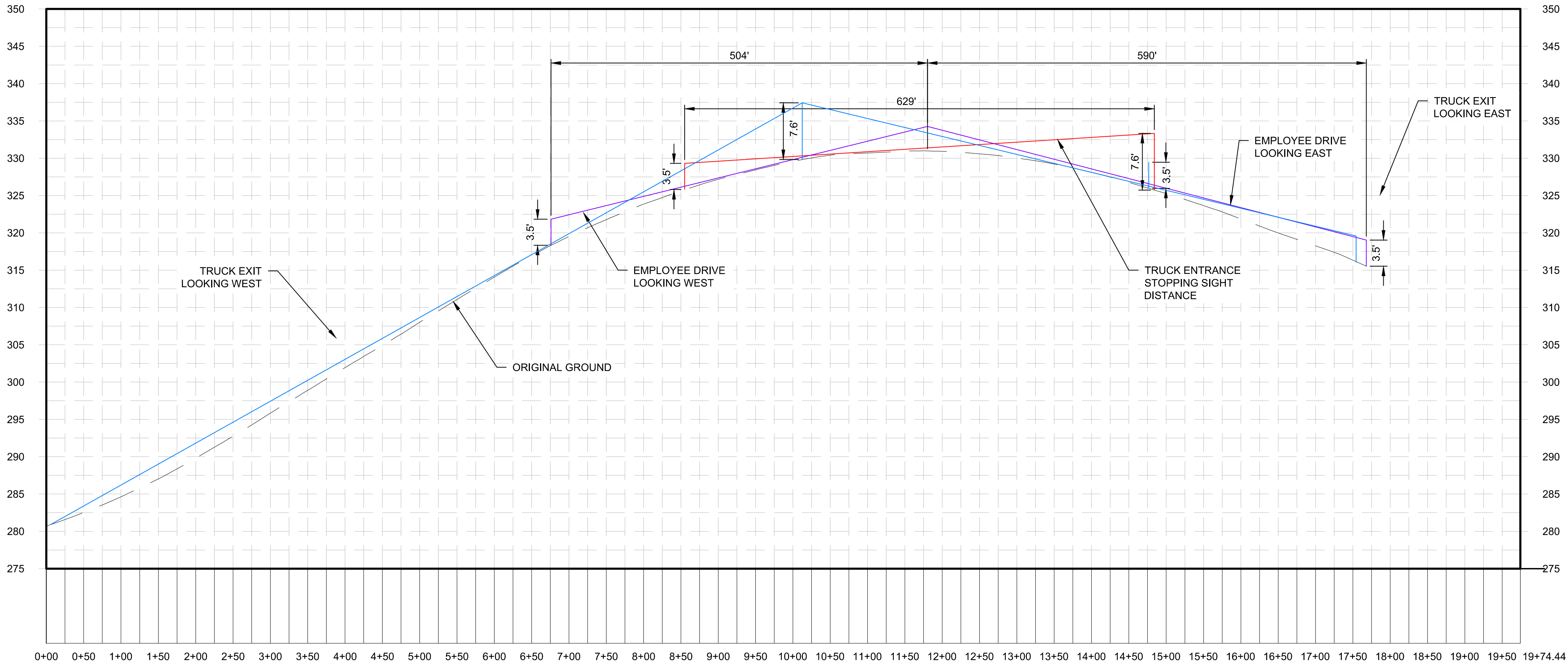


Trip Generation Traffic Volumes (PM)



2019 Build Traffic Volumes

FIGURE 9



SIGHT DISTANCE VIEWS
Horizontal Scale: 1" = 100'
Vertical Scale: 1" = 10'

PROJECT MILESTONE		
FOR REVIEW		
NO.	DATE	DESCRIPTION

CLIENT: SCANNELL PROPERTIES
CASTLETON-ON-HUDSON, STATE OF NEW YORK
PROJECT: VALENTI SITE

DRAWN	B.J.L.
DESIGNED	B.J.L.
CHECKED	A.J.F.
SCALE	1"=100'
DATE	MARCH 2021
PROJECT	18753.00

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE	
DRIVEWAY LAYOUT AND SIGHT DISTANCES	
DRAWING NUMBER	
C-01	

APPENDIX C

SYNCHRO MODEL CAPACITY ANALYSIS RESULTS

- 2021 Base Conditions
 - Morning Peak
 - Evening Peak
- 2022 No-Build Conditions
 - Morning Peak
 - Evening Peak
- 2022 Build Conditions
 - Morning Peak
 - Evening Peak
- 2022 Build Conditions with Mitigation
 - Morning Peak
 - Evening Peak

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2021 Base - AM
03/04/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕↗		↗	↕↗	↗
Traffic Volume (vph)	90	20	55	114	13	186	10	1029	21	41	736	13
Future Volume (vph)	90	20	55	114	13	186	10	1029	21	41	736	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	175		0	120		120
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.955			0.920			0.997				0.850
Flt Protected		0.973			0.982		0.950			0.950		
Satd. Flow (prot)	0	1736	0	0	1622	0	1388	3424	0	1597	3374	1313
Flt Permitted		0.573			0.809		0.343			0.116		
Satd. Flow (perm)	0	1022	0	0	1336	0	501	3424	0	195	3374	1313
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			112			4				50
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		881			731			2049			1621	
Travel Time (s)		13.3			11.1			31.0			24.6	
Peak Hour Factor	0.80	0.80	0.80	0.74	0.74	0.74	0.79	0.79	0.79	0.90	0.90	0.90
Heavy Vehicles (%)	2%	5%	0%	7%	8%	5%	30%	5%	10%	13%	7%	23%
Adj. Flow (vph)	113	25	69	154	18	251	13	1303	27	46	818	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	207	0	0	423	0	13	1330	0	46	818	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	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
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		9.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		32.0	32.0		9.0	41.0	41.0
Total Split (%)	36.9%	36.9%		36.9%	36.9%		49.2%	49.2%		13.8%	63.1%	63.1%
Maximum Green (s)	18.0	18.0		18.0	18.0		26.0	26.0		4.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		1.5	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0		5.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2021 Base - AM
03/04/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	0
Act Effct Green (s)		17.6			17.6		29.6	29.6		36.0	35.0	35.0
Actuated g/C Ratio		0.27			0.27		0.46	0.46		0.56	0.54	0.54
v/c Ratio		0.68			0.95		0.06	0.85		0.24	0.45	0.02
Control Delay		30.3			52.4		13.1	24.5		9.6	10.0	0.1
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		30.3			52.4		13.1	24.5		9.6	10.0	0.1
LOS		C			D		B	C		A	B	A
Approach Delay		30.3			52.4			24.4			9.9	
Approach LOS		C			D			C			A	
Queue Length 50th (ft)		58			123		3	261		8	94	0
Queue Length 95th (ft)		107			#198		11	#298		20	133	1
Internal Link Dist (ft)		801			651			1969			1541	
Turn Bay Length (ft)							175			120		120
Base Capacity (vph)		312			452		229	1572		195	1826	734
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.66			0.94		0.06	0.85		0.24	0.45	0.02

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 64.6

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 24.5

Intersection LOS: C

Intersection Capacity Utilization 64.3%

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: 1: US Route 20 & NYS Route 150

 Ø1	 Ø2	 Ø4
9 s	32 s	24 s
 Ø6		 Ø8
41 s		24 s

Lanes, Volumes, Timings
2: US Route 9 & US Route 20

2021 Base - AM
03/04/2021

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	402	0	245	640	0	651
Future Volume (vph)	402	0	245	640	0	651
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	2	0		2	0	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	0.88	1.00	1.00
Frt				0.850		
Flt Protected	0.950					
Satd. Flow (prot)	3273	0	3167	2733	0	1827
Flt Permitted	0.950					
Satd. Flow (perm)	3273	0	3167	2733	0	1827
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)				703		
Link Speed (mph)	55		45			45
Link Distance (ft)	333		2049			310
Travel Time (s)	4.1		31.0			4.7
Peak Hour Factor	0.75	0.92	0.91	0.91	0.92	0.80
Heavy Vehicles (%)	7%	2%	14%	4%	2%	4%
Adj. Flow (vph)	536	0	269	703	0	814
Shared Lane Traffic (%)						
Lane Group Flow (vph)	536	0	269	703	0	814
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		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	
Turn Type	Prot		NA	Free		NA
Protected Phases	2		1			1
Permitted Phases				Free		
Detector Phase	2		1			1
Switch Phase						
Minimum Initial (s)	4.0		4.0			4.0
Minimum Split (s)	22.0		22.0			22.0
Total Split (s)	22.0		38.0			38.0
Total Split (%)	36.7%		63.3%			63.3%
Maximum Green (s)	16.0		32.0			32.0
Yellow Time (s)	4.0		4.0			4.0
All-Red Time (s)	2.0		2.0			2.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0		3.0			3.0
Recall Mode	None		None			None

Lanes, Volumes, Timings
2: US Route 9 & US Route 20

2021 Base - AM
03/04/2021

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	13.4		27.7	53.5		27.7
Actuated g/C Ratio	0.25		0.52	1.00		0.52
v/c Ratio	0.65		0.16	0.26		0.86
Control Delay	23.0		7.2	0.2		23.1
Queue Delay	0.0		0.0	0.0		0.0
Total Delay	23.0		7.2	0.2		23.1
LOS	C		A	A		C
Approach Delay	23.0		2.2			23.1
Approach LOS	C		A			C
Queue Length 50th (ft)	87		22	0		210
Queue Length 95th (ft)	104		40	0		298
Internal Link Dist (ft)	253		1969			230
Turn Bay Length (ft)				50		
Base Capacity (vph)	1005		1946	2733		1123
Starvation Cap Reductn	0		0	0		0
Spillback Cap Reductn	0		0	0		0
Storage Cap Reductn	0		0	0		0
Reduced v/c Ratio	0.53		0.14	0.26		0.72

Intersection Summary

Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 53.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 55.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: US Route 9 & US Route 20

 Ø1	 Ø2
38 s	22 s

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations		↗	↗↗			↖
Traffic Vol, veh/h	0	12	245	0	40	651
Future Vol, veh/h	0	12	245	0	40	651
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	75	91	92	80	80
Heavy Vehicles, %	2	30	14	2	25	4
Mvmt Flow	0	16	269	0	50	814
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	135	0	-	269	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.35	-	-	4.475	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.585	-	-	2.4375	-
Pot Cap-1 Maneuver	0	815	-	0	1156	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	815	-	-	1156	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	9.5	0	0.5			
HCM LOS	A					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET		
Capacity (veh/h)	1156	-	815	-		
HCM Lane V/C Ratio	0.043	-	0.02	-		
HCM Control Delay (s)	8.3	0	9.5	-		
HCM Lane LOS	A	A	A	-		
HCM 95th %tile Q(veh)	0.1	-	0.1	-		

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	0	402	12	0	640
Future Vol, veh/h	40	0	402	12	0	640
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	85	92	75	75	92	91
Heavy Vehicles, %	5	2	7	30	2	4
Mvmt Flow	47	0	536	16	0	703

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	896	-	0
Stage 1	544	-	-
Stage 2	352	-	-
Critical Hdwy	6.9	-	-
Critical Hdwy Stg 1	5.9	-	-
Critical Hdwy Stg 2	5.9	-	-
Follow-up Hdwy	3.55	-	-
Pot Cap-1 Maneuver	274	0	-
Stage 1	537	0	-
Stage 2	674	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	274	-	-
Mov Cap-2 Maneuver	395	-	-
Stage 1	537	-	-
Stage 2	674	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	395
HCM Lane V/C Ratio	-	-	0.119
HCM Control Delay (s)	-	-	15.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.4

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	7	1	388	672	7
Future Vol, veh/h	24	7	1	388	672	7
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	8	1	422	730	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	947	369	738	0	-	0
Stage 1	734	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	259	628	864	-	-	-
Stage 1	436	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	258	628	864	-	-	-
Mov Cap-2 Maneuver	357	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14.9	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	864	-	396	-	-	
HCM Lane V/C Ratio	0.001	-	0.085	-	-	
HCM Control Delay (s)	9.2	0	14.9	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2021 Base - AM
03/04/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 			 	 	
Traffic Volume (vph)	4	2	172	410	270	408
Future Volume (vph)	4	2	172	410	270	408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			200
Storage Lanes	2	1	1			1
Taper Length (ft)	25		100			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3502	1615	1805	3438	3343	1615
Flt Permitted	0.950		0.450			
Satd. Flow (perm)	3502	1615	855	3438	3343	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		2				510
Link Speed (mph)	30			55	55	
Link Distance (ft)	375			486	1381	
Travel Time (s)	8.5			6.0	17.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	5%	8%	0%
Adj. Flow (vph)	4	2	191	456	338	510
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	2	191	456	338	510
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	9.0	22.0	22.0	22.0
Total Split (s)	22.0	22.0	11.0	33.0	22.0	22.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	17.0	17.0	6.0	27.0	16.0	16.0
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	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	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2021 Base - AM
03/04/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	5.7	5.7	33.2	37.2	24.0	24.0
Actuated g/C Ratio	0.14	0.14	0.82	0.92	0.60	0.60
v/c Ratio	0.01	0.01	0.23	0.14	0.17	0.44
Control Delay	14.8	12.0	2.2	1.3	6.2	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	12.0	2.2	1.3	6.2	2.6
LOS	B	B	A	A	A	A
Approach Delay	13.8			1.6	4.0	
Approach LOS	B			A	A	
Queue Length 50th (ft)	0	0	0	0	15	0
Queue Length 95th (ft)	3	4	30	34	45	28
Internal Link Dist (ft)	295			406	1301	
Turn Bay Length (ft)			200			200
Base Capacity (vph)	1505	695	848	3174	1988	1167
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	0.00	0.00	0.23	0.14	0.17	0.44

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 40.3

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 3.0

Intersection LOS: A

Intersection Capacity Utilization 44.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: US Route 9 & Amazon Employee Driveway

 02 33 s	 04 22 s
 05 11 s	 06 22 s

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Vol, veh/h	0	3	0	582	271	1
Future Vol, veh/h	0	3	0	582	271	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	80	80
Heavy Vehicles, %	100	100	100	5	8	100
Mvmt Flow	0	3	0	647	339	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	170	340	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	8.9	6.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	4.3	3.2	-	-	-
Pot Cap-1 Maneuver	0	608	733	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	608	733	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	733	-	608	-	-	
HCM Lane V/C Ratio	-	-	0.005	-	-	
HCM Control Delay (s)	0	-	11	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	70	0	447	714	0
Future Vol, veh/h	22	70	0	447	714	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	83	83	89	89
Heavy Vehicles, %	9	0	0	17	7	0
Mvmt Flow	44	140	0	539	802	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1072	401	-	0	-	0
Stage 1	802	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Critical Hdwy	6.98	6.9	-	-	-	-
Critical Hdwy Stg 1	5.98	-	-	-	-	-
Critical Hdwy Stg 2	5.98	-	-	-	-	-
Follow-up Hdwy	3.59	3.3	-	-	-	-
Pot Cap-1 Maneuver	204	604	0	-	-	0
Stage 1	384	-	0	-	-	0
Stage 2	730	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	204	604	-	-	-	-
Mov Cap-2 Maneuver	204	-	-	-	-	-
Stage 1	384	-	-	-	-	-
Stage 2	730	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	20.7	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 411		-			
HCM Lane V/C Ratio	- 0.448		-			
HCM Control Delay (s)	- 20.7		-			
HCM Lane LOS	- C		-			
HCM 95th %tile Q(veh)	- 2.3		-			

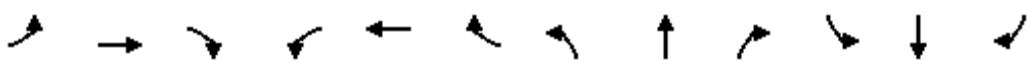
HCM 6th TWSC
9: US Route 20 & I90 EB On Ramp

2021 Base - AM
03/04/2021

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	11	470	261	53
Future Vol, veh/h	0	0	11	470	261	53
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	-	150	-	-	400
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	50	80	92	80
Heavy Vehicles, %	0	0	1	12	5	0
Mvmt Flow	0	0	22	588	284	66
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	622	-	350	0	-	0
Stage 1	284	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Critical Hdwy	6.8	-	4.12	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	-	2.21	-	-	-
Pot Cap-1 Maneuver	423	0	1213	-	-	-
Stage 1	745	0	-	-	-	-
Stage 2	700	0	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	415	-	1213	-	-	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1213	-	-	-	-	
HCM Lane V/C Ratio	0.018	-	-	-	-	
HCM Control Delay (s)	8	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	-	-	-	

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2021 Base - PM
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	↗
Traffic Volume (vph)	37	20	36	79	19	95	47	931	53	200	1298	72
Future Volume (vph)	37	20	36	79	19	95	47	931	53	200	1298	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	175		0	120		120
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.948			0.933			0.992				0.850
Flt Protected		0.981			0.980		0.950			0.950		
Satd. Flow (prot)	0	1746	0	0	1682	0	1805	3445	0	1736	3539	1615
Flt Permitted		0.757			0.824		0.207			0.147		
Satd. Flow (perm)	0	1348	0	0	1414	0	393	3445	0	269	3539	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			75			11				73
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		881			731			2049			1520	
Travel Time (s)		13.3			11.1			31.0			23.0	
Peak Hour Factor	0.97	0.97	0.97	0.78	0.78	0.78	0.96	0.96	0.96	0.98	0.98	0.98
Heavy Vehicles (%)	3%	0%	0%	2%	0%	5%	0%	4%	3%	4%	2%	0%
Adj. Flow (vph)	38	21	37	101	24	122	49	970	55	204	1324	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	247	0	49	1025	0	204	1324	73
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	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
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		10.0	22.0	22.0
Total Split (s)	19.0	19.0		19.0	19.0		27.5	27.5		13.5	41.0	41.0
Total Split (%)	31.7%	31.7%		31.7%	31.7%		45.8%	45.8%		22.5%	68.3%	68.3%
Maximum Green (s)	13.0	13.0		13.0	13.0		21.5	21.5		8.5	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		1.5	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0		5.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2021 Base - PM
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	0
Act Effct Green (s)		11.1			11.1		22.3	22.3		36.1	35.1	35.1
Actuated g/C Ratio		0.19			0.19		0.38	0.38		0.62	0.60	0.60
v/c Ratio		0.34			0.75		0.33	0.77		0.56	0.62	0.07
Control Delay		17.1			31.1		21.6	21.7		13.1	9.3	1.9
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		17.1			31.1		21.6	21.7		13.1	9.3	1.9
LOS		B			C		C	C		B	A	A
Approach Delay		17.1			31.1			21.7			9.5	
Approach LOS		B			C			C			A	
Queue Length 50th (ft)		18			56		13	171		29	146	0
Queue Length 95th (ft)		53			100		41	#273		73	204	13
Internal Link Dist (ft)		801			651			1969			1440	
Turn Bay Length (ft)							175			120		120
Base Capacity (vph)		330			375		150	1327		381	2134	1002
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.29			0.66		0.33	0.77		0.54	0.62	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 15.8

Intersection LOS: B

Intersection Capacity Utilization 68.8%

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: 1: US Route 20 & NYS Route 150

 Ø1	 Ø2	 Ø4
13.5 s	27.5 s	19 s
 Ø6		 Ø8
41 s		19 s

Lanes, Volumes, Timings
2: US Route 9 & US Route 20

2021 Base - PM
03/05/2021

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	727	0	655	734	0	360
Future Volume (vph)	727	0	655	734	0	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	2	0		2	0	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	0.88	1.00	1.00
Frt				0.850		
Flt Protected	0.950					
Satd. Flow (prot)	3433	0	3505	2787	0	1743
Flt Permitted	0.950					
Satd. Flow (perm)	3433	0	3505	2787	0	1743
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)				495		
Link Speed (mph)	55		45			45
Link Distance (ft)	333		2049			310
Travel Time (s)	4.1		31.0			4.7
Peak Hour Factor	0.97	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles (%)	2%	2%	3%	2%	2%	9%
Adj. Flow (vph)	749	0	712	773	0	379
Shared Lane Traffic (%)						
Lane Group Flow (vph)	749	0	712	773	0	379
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		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	
Turn Type	Prot		NA	Free		NA
Protected Phases	2		1			1
Permitted Phases				Free		
Detector Phase	2		1			1
Switch Phase						
Minimum Initial (s)	4.0		4.0			4.0
Minimum Split (s)	22.0		22.0			22.0
Total Split (s)	22.0		23.0			23.0
Total Split (%)	48.9%		51.1%			51.1%
Maximum Green (s)	16.0		17.0			17.0
Yellow Time (s)	4.0		4.0			4.0
All-Red Time (s)	2.0		2.0			2.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0		3.0			3.0
Recall Mode	None		None			None

Lanes, Volumes, Timings
2: US Route 9 & US Route 20

2021 Base - PM
03/05/2021

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	13.3		14.6	40.1		14.6
Actuated g/C Ratio	0.33		0.36	1.00		0.36
v/c Ratio	0.66		0.56	0.28		0.60
Control Delay	15.0		12.4	0.2		15.4
Queue Delay	0.0		0.0	0.0		0.0
Total Delay	15.0		12.4	0.2		15.4
LOS	B		B	A		B
Approach Delay	15.0		6.1			15.4
Approach LOS	B		A			B
Queue Length 50th (ft)	78		65	0		68
Queue Length 95th (ft)	122		112	0		140
Internal Link Dist (ft)	253		1969			230
Turn Bay Length (ft)				50		
Base Capacity (vph)	1400		1519	2787		755
Starvation Cap Reductn	0		0	0		0
Spillback Cap Reductn	0		0	0		0
Storage Cap Reductn	0		0	0		0
Reduced v/c Ratio	0.54		0.47	0.28		0.50
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 40.1						
Natural Cycle: 45						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.66						
Intersection Signal Delay: 10.0				Intersection LOS: A		
Intersection Capacity Utilization 49.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 2: US Route 9 & US Route 20

 Ø1	 Ø2
23 s	22 s

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations		↗	↗↗			↖
Traffic Vol, veh/h	0	60	655	0	36	360
Future Vol, veh/h	0	60	655	0	36	360
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	97	92	92	95	95
Heavy Vehicles, %	2	5	3	2	14	9
Mvmt Flow	0	62	712	0	38	379
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	356	0	-	712	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.975	-	-	4.31	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3475	-	-	2.333	-
Pot Cap-1 Maneuver	0	634	-	0	821	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	634	-	-	821	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	11.3	0	0.9			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET		
Capacity (veh/h)	821	-	634	-		
HCM Lane V/C Ratio	0.046	-	0.098	-		
HCM Control Delay (s)	9.6	0	11.3	-		
HCM Lane LOS	A	A	B	-		
HCM 95th %tile Q(veh)	0.1	-	0.3	-		

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	0	727	60	0	734
Future Vol, veh/h	36	0	727	60	0	734
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	95	92	97	97	92	92
Heavy Vehicles, %	14	2	2	5	2	2
Mvmt Flow	38	0	749	62	0	798
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1179	-	0	0	-	-
Stage 1	780	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Critical Hdwy	7.08	-	-	-	-	-
Critical Hdwy Stg 1	6.08	-	-	-	-	-
Critical Hdwy Stg 2	6.08	-	-	-	-	-
Follow-up Hdwy	3.64	-	-	-	-	-
Pot Cap-1 Maneuver	167	0	-	-	0	-
Stage 1	383	0	-	-	0	-
Stage 2	613	0	-	-	0	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	167	-	-	-	-	-
Mov Cap-2 Maneuver	285	-	-	-	-	-
Stage 1	383	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.6	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 285		-		
HCM Lane V/C Ratio	-	- 0.133		-		
HCM Control Delay (s)	-	- 19.6		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.5		-		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	3	772	751	27
Future Vol, veh/h	13	0	3	772	751	27
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	3	839	816	29
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1257	423	845	0	-	0
Stage 1	831	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	163	579	787	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	162	579	787	-	-	-
Mov Cap-2 Maneuver	285	-	-	-	-	-
Stage 1	385	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	18.3	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	787	-	285	-	-	
HCM Lane V/C Ratio	0.004	-	0.05	-	-	
HCM Control Delay (s)	9.6	0	18.3	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2021 Base - PM

03/05/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 			 	 	
Traffic Volume (vph)	430	185	126	347	474	296
Future Volume (vph)	430	185	126	347	474	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			200
Storage Lanes	2	1	1			1
Taper Length (ft)	25		100			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3502	1615	1805	3438	3471	1615
Flt Permitted	0.950		0.377			
Satd. Flow (perm)	3502	1615	716	3438	3471	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		195				322
Link Speed (mph)	30			55	55	
Link Distance (ft)	375			486	1400	
Travel Time (s)	8.5			6.0	17.4	
Peak Hour Factor	0.95	0.95	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	5%	4%	0%
Adj. Flow (vph)	453	195	137	377	515	322
Shared Lane Traffic (%)						
Lane Group Flow (vph)	453	195	137	377	515	322
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	8.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	8.0	30.0	22.0	22.0
Total Split (%)	45.5%	45.5%	14.5%	54.5%	40.0%	40.0%
Maximum Green (s)	20.0	20.0	4.0	24.0	16.0	16.0
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	0.5	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	4.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2021 Base - PM
03/05/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	11.6	11.6	26.1	24.1	17.8	17.8
Actuated g/C Ratio	0.25	0.25	0.56	0.52	0.38	0.38
v/c Ratio	0.52	0.36	0.28	0.21	0.39	0.40
Control Delay	17.3	4.8	7.4	7.2	13.1	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	4.8	7.4	7.2	13.1	3.8
LOS	B	A	A	A	B	A
Approach Delay	13.5			7.2	9.5	
Approach LOS	B			A	A	
Queue Length 50th (ft)	54	0	14	24	53	0
Queue Length 95th (ft)	86	34	43	54	102	44
Internal Link Dist (ft)	295			406	1320	
Turn Bay Length (ft)			200			200
Base Capacity (vph)	1504	804	493	1772	1321	814
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	0.30	0.24	0.28	0.21	0.39	0.40

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 46.7

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 10.2

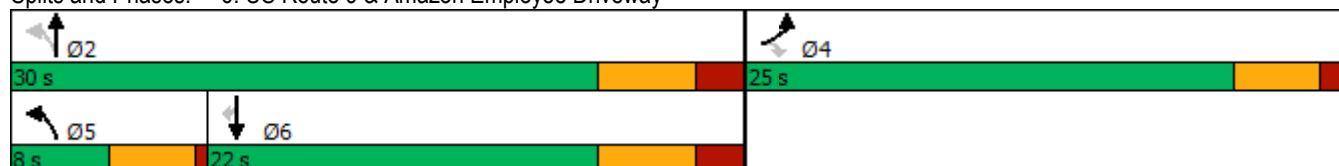
Intersection LOS: B

Intersection Capacity Utilization 44.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: US Route 9 & Amazon Employee Driveway



Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Vol, veh/h	0	11	1	473	645	14
Future Vol, veh/h	0	11	1	473	645	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	92	92	92	92
Heavy Vehicles, %	100	100	100	5	3	100
Mvmt Flow	0	22	1	514	701	15
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	358	716	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	8.9	6.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	4.3	3.2	-	-	-
Pot Cap-1 Maneuver	0	425	452	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	425	452	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.9	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	452	-	425	-	-	
HCM Lane V/C Ratio	0.002	-	0.052	-	-	
HCM Control Delay (s)	13	0	13.9	-	-	
HCM Lane LOS	B	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

HCM 6th TWSC
8: US Route 20 & I90 WB Off Ramp

2021 Base - PM
03/05/2021

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	63	0	458	1508	0
Future Vol, veh/h	23	63	0	458	1508	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	68	0	498	1639	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1888	820	-	0	-	0
Stage 1	1639	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	62	318	0	-	-	0
Stage 1	144	-	0	-	-	0
Stage 2	769	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	62	318	-	-	-	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	144	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	61.4	0		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	-		151	-		
HCM Lane V/C Ratio	-		0.619	-		
HCM Control Delay (s)	-		61.4	-		
HCM Lane LOS	-		F	-		
HCM 95th %tile Q(veh)	-		3.3	-		

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	36	451	625	72
Future Vol, veh/h	0	0	36	451	625	72
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	-	150	-	-	400
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	39	490	679	78

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1002	-	757
Stage 1	679	-	-
Stage 2	323	-	-
Critical Hdwy	6.84	-	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	-	2.22
Pot Cap-1 Maneuver	239	0	850
Stage 1	465	0	-
Stage 2	706	0	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	228	-	850
Mov Cap-2 Maneuver	228	-	-
Stage 1	444	-	-
Stage 2	706	-	-

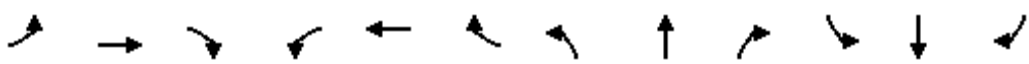
Approach	EB	NB	SB
HCM Control Delay, s	0	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	850	-	-	-	-
HCM Lane V/C Ratio	0.046	-	-	-	-
HCM Control Delay (s)	9.4	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2022 No Build - AM

03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕↗		↗	↕↗	↗
Traffic Volume (vph)	91	21	56	115	13	187	10	1039	22	41	744	13
Future Volume (vph)	91	21	56	115	13	187	10	1039	22	41	744	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	175		0	120		120
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.955			0.920			0.997				0.850
Flt Protected		0.974			0.982		0.950			0.950		
Satd. Flow (prot)	0	1738	0	0	1622	0	1388	3424	0	1597	3374	1313
Flt Permitted		0.573			0.808		0.340			0.116		
Satd. Flow (perm)	0	1022	0	0	1334	0	497	3424	0	195	3374	1313
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			112			4				50
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		347			731			2049			1621	
Travel Time (s)		5.3			11.1			31.0			24.6	
Peak Hour Factor	0.80	0.80	0.80	0.74	0.74	0.74	0.79	0.79	0.79	0.90	0.90	0.90
Heavy Vehicles (%)	2%	5%	0%	7%	8%	5%	30%	5%	10%	13%	7%	23%
Adj. Flow (vph)	114	26	70	155	18	253	13	1315	28	46	827	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	210	0	0	426	0	13	1343	0	46	827	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	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
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		9.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		32.0	32.0		9.0	41.0	41.0
Total Split (%)	36.9%	36.9%		36.9%	36.9%		49.2%	49.2%		13.8%	63.1%	63.1%
Maximum Green (s)	18.0	18.0		18.0	18.0		26.0	26.0		4.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		1.5	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0		5.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2022 No Build - AM
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	0
Act Effct Green (s)		17.7			17.7		29.6	29.6		36.0	35.0	35.0
Actuated g/C Ratio		0.27			0.27		0.46	0.46		0.56	0.54	0.54
v/c Ratio		0.68			0.96		0.06	0.86		0.24	0.45	0.02
Control Delay		30.9			53.2		13.1	25.1		9.6	10.1	0.1
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		30.9			53.2		13.1	25.1		9.6	10.1	0.1
LOS		C			D		B	C		A	B	A
Approach Delay		30.9			53.2			25.0			9.9	
Approach LOS		C			D			C			A	
Queue Length 50th (ft)		60			125		3	265		8	96	0
Queue Length 95th (ft)		109			#200		11	#325		20	135	1
Internal Link Dist (ft)		267			651			1969			1541	
Turn Bay Length (ft)							175			120		120
Base Capacity (vph)		311			451		227	1569		195	1823	733
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.68			0.94		0.06	0.86		0.24	0.45	0.02

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 64.7

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 25.0

Intersection LOS: C

Intersection Capacity Utilization 64.5%

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: 1: US Route 20 & NYS Route 150

 Ø1	 Ø2	 Ø4
9 s	32 s	24 s
 Ø6		 Ø8
41 s		24 s

Lanes, Volumes, Timings
2: US Route 9 & US Route 20

2022 No Build - AM

03/05/2021

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	406	0	247	646	0	657
Future Volume (vph)	406	0	247	646	0	657
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	2	0		2	0	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	0.88	1.00	1.00
Frt				0.850		
Flt Protected	0.950					
Satd. Flow (prot)	3273	0	3167	2733	0	1827
Flt Permitted	0.950					
Satd. Flow (perm)	3273	0	3167	2733	0	1827
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)				710		
Link Speed (mph)	55		45			45
Link Distance (ft)	333		2049			310
Travel Time (s)	4.1		31.0			4.7
Peak Hour Factor	0.75	0.92	0.91	0.91	0.92	0.80
Heavy Vehicles (%)	7%	2%	14%	4%	2%	4%
Adj. Flow (vph)	541	0	271	710	0	821
Shared Lane Traffic (%)						
Lane Group Flow (vph)	541	0	271	710	0	821
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		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	
Turn Type	Prot		NA	Free		NA
Protected Phases	2		1			1
Permitted Phases				Free		
Detector Phase	2		1			1
Switch Phase						
Minimum Initial (s)	4.0		4.0			4.0
Minimum Split (s)	22.0		22.0			22.0
Total Split (s)	22.0		38.0			38.0
Total Split (%)	36.7%		63.3%			63.3%
Maximum Green (s)	16.0		32.0			32.0
Yellow Time (s)	4.0		4.0			4.0
All-Red Time (s)	2.0		2.0			2.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0		3.0			3.0
Recall Mode	None		None			None

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	13.5		27.9	53.7		27.9
Actuated g/C Ratio	0.25		0.52	1.00		0.52
v/c Ratio	0.66		0.16	0.26		0.87
Control Delay	23.1		7.2	0.2		23.6
Queue Delay	0.0		0.0	0.0		0.0
Total Delay	23.1		7.2	0.2		23.6
LOS	C		A	A		C
Approach Delay	23.1		2.2			23.6
Approach LOS	C		A			C
Queue Length 50th (ft)	88		22	0		215
Queue Length 95th (ft)	105		40	0		302
Internal Link Dist (ft)	253		1969			230
Turn Bay Length (ft)				50		
Base Capacity (vph)	1000		1936	2733		1117
Starvation Cap Reductn	0		0	0		0
Spillback Cap Reductn	0		0	0		0
Storage Cap Reductn	0		0	0		0
Reduced v/c Ratio	0.54		0.14	0.26		0.74

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 14.5

Intersection LOS: B

Intersection Capacity Utilization 56.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: US Route 9 & US Route 20

 Ø1	 Ø2
38 s	22 s

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations		↗	↗↗			↖
Traffic Vol, veh/h	0	12	247	0	40	657
Future Vol, veh/h	0	12	247	0	40	657
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	75	91	92	80	80
Heavy Vehicles, %	2	30	14	2	25	4
Mvmt Flow	0	16	271	0	50	821
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	136	0	-	271	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.35	-	-	4.475	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.585	-	-	2.4375	-
Pot Cap-1 Maneuver	0	813	-	0	1154	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	813	-	-	1154	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	9.5	0	0.5			
HCM LOS	A					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET		
Capacity (veh/h)	1154	-	813	-		
HCM Lane V/C Ratio	0.043	-	0.02	-		
HCM Control Delay (s)	8.3	0	9.5	-		
HCM Lane LOS	A	A	A	-		
HCM 95th %tile Q(veh)	0.1	-	0.1	-		

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	0	406	12	0	646
Future Vol, veh/h	40	0	406	12	0	646
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	85	92	75	75	92	91
Heavy Vehicles, %	5	2	7	30	2	4
Mvmt Flow	47	0	541	16	0	710
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	904	-	0	0	-	-
Stage 1	549	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Critical Hdwy	6.9	-	-	-	-	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	-	-	-	-	-
Pot Cap-1 Maneuver	271	0	-	-	0	-
Stage 1	534	0	-	-	0	-
Stage 2	672	0	-	-	0	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	271	-	-	-	-	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.4	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 392		-		
HCM Lane V/C Ratio	-	- 0.12		-		
HCM Control Delay (s)	-	- 15.4		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.4		-		

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	7	1	391	679	7
Future Vol, veh/h	25	7	1	391	679	7
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	8	1	425	738	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	957	373	746	0	-	0
Stage 1	742	-	-	-	-	-
Stage 2	215	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	256	624	858	-	-	-
Stage 1	432	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	255	624	858	-	-	-
Mov Cap-2 Maneuver	354	-	-	-	-	-
Stage 1	431	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	15.1	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	858	-	391	-	-	
HCM Lane V/C Ratio	0.001	-	0.089	-	-	
HCM Control Delay (s)	9.2	0	15.1	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2022 No Build - AM

03/05/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	2	174	414	273	412
Future Volume (vph)	4	2	174	414	273	412
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			200
Storage Lanes	2	1	1			1
Taper Length (ft)	25		100			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3502	1615	1805	3438	3343	1615
Flt Permitted	0.950		0.449			
Satd. Flow (perm)	3502	1615	853	3438	3343	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		2				515
Link Speed (mph)	30			55	55	
Link Distance (ft)	375			486	1311	
Travel Time (s)	8.5			6.0	16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	5%	8%	0%
Adj. Flow (vph)	4	2	193	460	341	515
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	2	193	460	341	515
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	9.0	22.0	22.0	22.0
Total Split (s)	22.0	22.0	11.0	33.0	22.0	22.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	17.0	17.0	6.0	27.0	16.0	16.0
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	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	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2022 No Build - AM
03/05/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	5.7	5.7	33.1	37.1	23.9	23.9
Actuated g/C Ratio	0.14	0.14	0.82	0.92	0.59	0.59
v/c Ratio	0.01	0.01	0.23	0.14	0.17	0.44
Control Delay	14.8	12.0	2.2	1.3	6.3	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	12.0	2.2	1.3	6.3	2.6
LOS	B	B	A	A	A	A
Approach Delay	13.8			1.6	4.1	
Approach LOS	B			A	A	
Queue Length 50th (ft)	0	0	0	0	15	0
Queue Length 95th (ft)	3	4	31	35	46	28
Internal Link Dist (ft)	295			406	1231	
Turn Bay Length (ft)			200			200
Base Capacity (vph)	1509	697	847	3174	1984	1168
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	0.00	0.00	0.23	0.14	0.17	0.44

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 40.2

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 3.0

Intersection LOS: A

Intersection Capacity Utilization 44.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: US Route 9 & Amazon Employee Driveway

33 s	22 s
11 s	22 s

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Vol, veh/h	0	3	0	588	274	1
Future Vol, veh/h	0	3	0	588	274	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	80	80
Heavy Vehicles, %	100	100	100	5	8	100
Mvmt Flow	0	3	0	653	343	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	172	344	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	8.9	6.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	4.3	3.2	-	-	-
Pot Cap-1 Maneuver	0	605	729	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	605	729	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	729	-	605	-	-	
HCM Lane V/C Ratio	-	-	0.006	-	-	
HCM Control Delay (s)	0	-	11	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	71	0	451	721	0
Future Vol, veh/h	23	71	0	451	721	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	83	83	89	89
Heavy Vehicles, %	9	0	0	17	7	0
Mvmt Flow	46	142	0	543	810	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1082	405	-	0	-	0
Stage 1	810	-	-	-	-	-
Stage 2	272	-	-	-	-	-
Critical Hdwy	6.98	6.9	-	-	-	-
Critical Hdwy Stg 1	5.98	-	-	-	-	-
Critical Hdwy Stg 2	5.98	-	-	-	-	-
Follow-up Hdwy	3.59	3.3	-	-	-	-
Pot Cap-1 Maneuver	201	601	0	-	-	0
Stage 1	381	-	0	-	-	0
Stage 2	729	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	201	601	-	-	-	-
Mov Cap-2 Maneuver	201	-	-	-	-	-
Stage 1	381	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	21.4	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	-		404	-		
HCM Lane V/C Ratio	-		0.465	-		
HCM Control Delay (s)	-		21.4	-		
HCM Lane LOS	-		C	-		
HCM 95th %tile Q(veh)	-		2.4	-		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	11	475	264	54
Future Vol, veh/h	0	0	11	475	264	54
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	-	150	-	-	400
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	50	80	92	80
Heavy Vehicles, %	0	0	1	12	5	0
Mvmt Flow	0	0	22	594	287	68
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	628	-	355	0	-	0
Stage 1	287	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Critical Hdwy	6.8	-	4.12	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	-	2.21	-	-	-
Pot Cap-1 Maneuver	420	0	1208	-	-	-
Stage 1	742	0	-	-	-	-
Stage 2	698	0	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	412	-	1208	-	-	-
Mov Cap-2 Maneuver	412	-	-	-	-	-
Stage 1	729	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1208	-	-	-	-	
HCM Lane V/C Ratio	0.018	-	-	-	-	
HCM Control Delay (s)	8	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	-	-	-	

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2022 No Build - PM

03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	21	36	79	20	96	47	941	54	202	1311	73
Future Volume (vph)	37	21	36	79	20	96	47	941	54	202	1311	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	175		0	120		120
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.949			0.934			0.992				0.850
Flt Protected		0.981			0.980		0.950			0.950		
Satd. Flow (prot)	0	1748	0	0	1684	0	1805	3445	0	1736	3539	1615
Flt Permitted		0.755			0.825		0.204			0.147		
Satd. Flow (perm)	0	1346	0	0	1418	0	388	3445	0	269	3539	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			74			11				74
Link Speed (mph)		45			45			45				45
Link Distance (ft)		241			731			2049			1520	
Travel Time (s)		3.7			11.1			31.0			23.0	
Peak Hour Factor	0.97	0.97	0.97	0.78	0.78	0.78	0.96	0.96	0.96	0.98	0.98	0.98
Heavy Vehicles (%)	3%	0%	0%	2%	0%	5%	0%	4%	3%	4%	2%	0%
Adj. Flow (vph)	38	22	37	101	26	123	49	980	56	206	1338	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	97	0	0	250	0	49	1036	0	206	1338	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	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
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		10.0	22.0	22.0
Total Split (s)	19.0	19.0		19.0	19.0		27.5	27.5		13.5	41.0	41.0
Total Split (%)	31.7%	31.7%		31.7%	31.7%		45.8%	45.8%		22.5%	68.3%	68.3%
Maximum Green (s)	13.0	13.0		13.0	13.0		21.5	21.5		8.5	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		1.5	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0		5.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2022 No Build - PM
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	0
Act Effct Green (s)		11.1			11.1		22.3	22.3		36.1	35.1	35.1
Actuated g/C Ratio		0.19			0.19		0.38	0.38		0.62	0.60	0.60
v/c Ratio		0.34			0.76		0.33	0.78		0.57	0.63	0.07
Control Delay		17.2			31.8		21.8	22.1		13.3	9.5	1.9
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		17.2			31.8		21.8	22.1		13.3	9.5	1.9
LOS		B			C		C	C		B	A	A
Approach Delay		17.2			31.8			22.1			9.6	
Approach LOS		B			C			C			A	
Queue Length 50th (ft)		18			57		13	174		29	149	0
Queue Length 95th (ft)		53			101		41	#277		74	209	13
Internal Link Dist (ft)		161			651			1969			1440	
Turn Bay Length (ft)							175			120		120
Base Capacity (vph)		329			374		148	1324		381	2131	1002
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.29			0.67		0.33	0.78		0.54	0.63	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 16.1

Intersection LOS: B

Intersection Capacity Utilization 69.4%

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: 1: US Route 20 & NYS Route 150

 Ø1	 Ø2	 Ø4
13.5 s	27.5 s	19 s
 Ø6		 Ø8
41 s		19 s

Lanes, Volumes, Timings
2: US Route 9 & US Route 20

2022 No Build - PM

03/05/2021

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	735	0	661	742	0	364
Future Volume (vph)	735	0	661	742	0	364
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	2	0		2	0	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	0.88	1.00	1.00
Frt				0.850		
Flt Protected	0.950					
Satd. Flow (prot)	3433	0	3505	2787	0	1743
Flt Permitted	0.950					
Satd. Flow (perm)	3433	0	3505	2787	0	1743
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)				496		
Link Speed (mph)	55		45			45
Link Distance (ft)	333		2049			310
Travel Time (s)	4.1		31.0			4.7
Peak Hour Factor	0.97	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles (%)	2%	2%	3%	2%	2%	9%
Adj. Flow (vph)	758	0	718	781	0	383
Shared Lane Traffic (%)						
Lane Group Flow (vph)	758	0	718	781	0	383
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		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	
Turn Type	Prot		NA	Free		NA
Protected Phases	2		1			1
Permitted Phases				Free		
Detector Phase	2		1			1
Switch Phase						
Minimum Initial (s)	4.0		4.0			4.0
Minimum Split (s)	22.0		22.0			22.0
Total Split (s)	22.0		23.0			23.0
Total Split (%)	48.9%		51.1%			51.1%
Maximum Green (s)	16.0		17.0			17.0
Yellow Time (s)	4.0		4.0			4.0
All-Red Time (s)	2.0		2.0			2.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0		3.0			3.0
Recall Mode	None		None			None

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	13.3		14.6	40.2		14.6
Actuated g/C Ratio	0.33		0.36	1.00		0.36
v/c Ratio	0.67		0.56	0.28		0.61
Control Delay	15.1		12.5	0.3		15.6
Queue Delay	0.0		0.0	0.0		0.0
Total Delay	15.1		12.5	0.3		15.6
LOS	B		B	A		B
Approach Delay	15.1		6.1			15.6
Approach LOS	B		A			B
Queue Length 50th (ft)	80		67	0		70
Queue Length 95th (ft)	124		112	0		142
Internal Link Dist (ft)	253		1969			230
Turn Bay Length (ft)				50		
Base Capacity (vph)	1397		1515	2787		753
Starvation Cap Reductn	0		0	0		0
Spillback Cap Reductn	0		0	0		0
Storage Cap Reductn	0		0	0		0
Reduced v/c Ratio	0.54		0.47	0.28		0.51
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 40.2						
Natural Cycle: 45						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.67						
Intersection Signal Delay: 10.1				Intersection LOS: B		
Intersection Capacity Utilization 50.1%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 2: US Route 9 & US Route 20

 Ø1	 Ø2
23 s	22 s

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	0	61	661	0	36	364
Future Vol, veh/h	0	61	661	0	36	364
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	97	92	92	95	95
Heavy Vehicles, %	2	5	3	2	14	9
Mvmt Flow	0	63	718	0	38	383
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	359	0	-	718	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.975	-	-	4.31	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3475	-	-	2.333	-
Pot Cap-1 Maneuver	0	631	-	0	817	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	631	-	-	817	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	11.3	0	0.9			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET		
Capacity (veh/h)	817	-	631	-		
HCM Lane V/C Ratio	0.046	-	0.1	-		
HCM Control Delay (s)	9.6	0	11.3	-		
HCM Lane LOS	A	A	B	-		
HCM 95th %tile Q(veh)	0.1	-	0.3	-		

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	0	735	61	0	742
Future Vol, veh/h	36	0	735	61	0	742
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	95	92	97	97	92	92
Heavy Vehicles, %	14	2	2	5	2	2
Mvmt Flow	38	0	758	63	0	807
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1194	-	0	0	-	-
Stage 1	790	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Critical Hdwy	7.08	-	-	-	-	-
Critical Hdwy Stg 1	6.08	-	-	-	-	-
Critical Hdwy Stg 2	6.08	-	-	-	-	-
Follow-up Hdwy	3.64	-	-	-	-	-
Pot Cap-1 Maneuver	163	0	-	-	0	-
Stage 1	378	0	-	-	0	-
Stage 2	609	0	-	-	0	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	163	-	-	-	-	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	378	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.8	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	281		-		
HCM Lane V/C Ratio	-	0.135		-		
HCM Control Delay (s)	-	19.8		-		
HCM Lane LOS	-	C		-		
HCM 95th %tile Q(veh)	-	0.5		-		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	3	772	751	27
Future Vol, veh/h	13	0	3	772	751	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	Free
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	3	839	816	29

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1242	408	816	0	-	0
Stage 1	816	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	167	593	807	-	-	0
Stage 1	395	-	-	-	-	0
Stage 2	627	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	166	593	807	-	-	-
Mov Cap-2 Maneuver	290	-	-	-	-	-
Stage 1	392	-	-	-	-	-
Stage 2	627	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	807	-	290	-
HCM Lane V/C Ratio	0.004	-	0.049	-
HCM Control Delay (s)	9.5	0	18	-
HCM Lane LOS	A	A	C	-
HCM 95th %tile Q(veh)	0	-	0.2	-

Lanes, Volumes, Timings
5: US Route 9 & Amazon Employee Driveway

2022 No Build - PM

03/05/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 			 	 	
Traffic Volume (vph)	435	186	128	350	479	299
Future Volume (vph)	435	186	128	350	479	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			200
Storage Lanes	2	1	1			1
Taper Length (ft)	25		100			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3502	1615	1805	3438	3471	1615
Flt Permitted	0.950		0.375			
Satd. Flow (perm)	3502	1615	712	3438	3471	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		196				325
Link Speed (mph)	30			55	55	
Link Distance (ft)	375			486	1068	
Travel Time (s)	8.5			6.0	13.2	
Peak Hour Factor	0.95	0.95	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	5%	4%	0%
Adj. Flow (vph)	458	196	139	380	521	325
Shared Lane Traffic (%)						
Lane Group Flow (vph)	458	196	139	380	521	325
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	8.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	8.0	30.0	22.0	22.0
Total Split (%)	45.5%	45.5%	14.5%	54.5%	40.0%	40.0%
Maximum Green (s)	20.0	20.0	4.0	24.0	16.0	16.0
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	0.5	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	4.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max

Lanes, Volumes, Timings
5: US Route 9 & Amazon Employee Driveway

2022 No Build - PM
03/05/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	11.7	11.7	26.1	24.1	17.8	17.8
Actuated g/C Ratio	0.25	0.25	0.56	0.51	0.38	0.38
v/c Ratio	0.52	0.36	0.28	0.21	0.39	0.40
Control Delay	17.3	4.7	7.4	7.2	13.2	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	4.7	7.4	7.2	13.2	3.8
LOS	B	A	A	A	B	A
Approach Delay	13.5			7.3	9.6	
Approach LOS	B			A	A	
Queue Length 50th (ft)	54	0	15	25	54	0
Queue Length 95th (ft)	87	34	43	55	103	44
Internal Link Dist (ft)	295			406	988	
Turn Bay Length (ft)			200			200
Base Capacity (vph)	1502	804	490	1769	1319	815
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	0.30	0.24	0.28	0.21	0.39	0.40

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 46.8

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 10.3

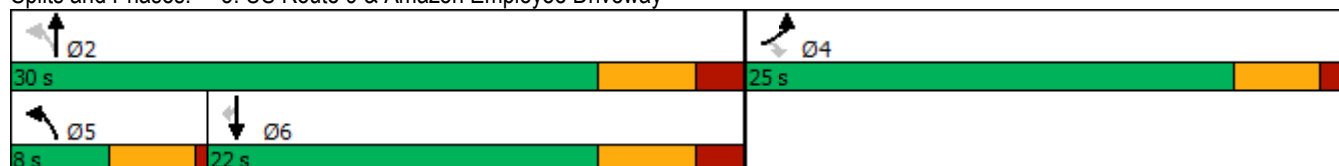
Intersection LOS: B

Intersection Capacity Utilization 45.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: US Route 9 & Amazon Employee Driveway



Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	1	478	651	14
Future Vol, veh/h	0	11	1	478	651	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	92	92	92	92
Heavy Vehicles, %	100	100	100	5	3	100
Mvmt Flow	0	22	1	520	708	15
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	362	723	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	8.9	6.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	4.3	3.2	-	-	-
Pot Cap-1 Maneuver	0	421	448	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	421	448	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	448	-	421	-	-	
HCM Lane V/C Ratio	0.002	-	0.052	-	-	
HCM Control Delay (s)	13.1	0	14	-	-	
HCM Lane LOS	B	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	64	0	463	1523	0
Future Vol, veh/h	24	64	0	463	1523	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	70	0	503	1655	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1907	828	-	0	-	0
Stage 1	1655	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	60	314	0	-	-	0
Stage 1	141	-	0	-	-	0
Stage 2	767	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	60	314	-	-	-	-
Mov Cap-2 Maneuver	60	-	-	-	-	-
Stage 1	141	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	67.3	0		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 146		-			
HCM Lane V/C Ratio	- 0.655		-			
HCM Control Delay (s)	- 67.3		-			
HCM Lane LOS	- F		-			
HCM 95th %tile Q(veh)	- 3.6		-			

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	36	455	632	73
Future Vol, veh/h	0	0	36	455	632	73
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	-	150	-	-	400
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	39	495	687	79
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1013	-	766	0	-	0
Stage 1	687	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Critical Hdwy	6.84	-	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	2.22	-	-	-
Pot Cap-1 Maneuver	235	0	843	-	-	-
Stage 1	461	0	-	-	-	-
Stage 2	704	0	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	-	843	-	-	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	440	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	843	-	-	-	-	
HCM Lane V/C Ratio	0.046	-	-	-	-	
HCM Control Delay (s)	9.5	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	-	-	-	

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2022 Build - AM
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	↗
Traffic Volume (vph)	183	28	99	115	20	187	54	1039	22	41	744	101
Future Volume (vph)	183	28	99	115	20	187	54	1039	22	41	744	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	175		0	120		120
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.957			0.921			0.997				0.850
Flt Protected		0.971			0.982		0.950			0.950		
Satd. Flow (prot)	0	1737	0	0	1623	0	1388	3424	0	1597	3374	1313
Flt Permitted		0.545			0.771		0.340			0.116		
Satd. Flow (perm)	0	975	0	0	1274	0	497	3424	0	195	3374	1313
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			106			4				112
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		790			731			2049			1621	
Travel Time (s)		12.0			11.1			31.0			24.6	
Peak Hour Factor	0.80	0.80	0.80	0.74	0.74	0.74	0.79	0.79	0.79	0.90	0.90	0.90
Heavy Vehicles (%)	2%	5%	0%	7%	8%	5%	30%	5%	10%	13%	7%	23%
Adj. Flow (vph)	229	35	124	155	27	253	68	1315	28	46	827	112
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	388	0	0	435	0	68	1343	0	46	827	112
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	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
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		9.0	22.0	22.0
Total Split (s)	24.0	24.0		24.0	24.0		32.0	32.0		9.0	41.0	41.0
Total Split (%)	36.9%	36.9%		36.9%	36.9%		49.2%	49.2%		13.8%	63.1%	63.1%
Maximum Green (s)	18.0	18.0		18.0	18.0		26.0	26.0		4.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		1.5	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0		5.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2022 Build - AM
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	0
Act Effct Green (s)		18.0			18.0		29.6	29.6		36.0	35.0	35.0
Actuated g/C Ratio		0.28			0.28		0.46	0.46		0.55	0.54	0.54
v/c Ratio		1.31			1.01		0.30	0.86		0.24	0.46	0.15
Control Delay		186.0			69.0		17.9	25.4		9.7	10.2	2.3
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		186.0			69.0		17.9	25.4		9.7	10.2	2.3
LOS		F			E		B	C		A	B	A
Approach Delay		186.0			69.0			25.1			9.3	
Approach LOS		F			E			C			A	
Queue Length 50th (ft)		~194			~140		18	265		8	96	0
Queue Length 95th (ft)		#295			#219		42	#325		20	135	19
Internal Link Dist (ft)		710			651			1969			1541	
Turn Bay Length (ft)							175			120		120
Base Capacity (vph)		296			429		226	1561		194	1816	758
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		1.31			1.01		0.30	0.86		0.24	0.46	0.15

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.31

Intersection Signal Delay: 45.6

Intersection LOS: D

Intersection Capacity Utilization 76.2%

ICU Level of Service D

Analysis Period (min) 15

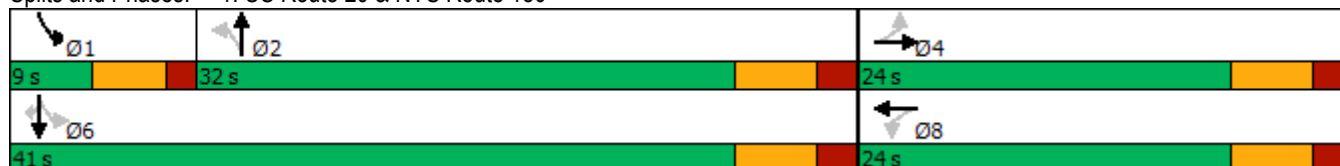
~ Volume exceeds capacity, queue is theoretically infinite.

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: 1: US Route 20 & NYS Route 150



Lanes, Volumes, Timings
2: US Route 9 & US Route 20

2022 Build - AM
03/15/2021

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	442	0	254	683	0	664
Future Volume (vph)	442	0	254	683	0	664
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	2	0		2	0	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	0.88	1.00	1.00
Frt				0.850		
Flt Protected	0.950					
Satd. Flow (prot)	3273	0	3167	2733	0	1827
Flt Permitted	0.950					
Satd. Flow (perm)	3273	0	3167	2733	0	1827
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)				751		
Link Speed (mph)	55		45			45
Link Distance (ft)	333		2049			310
Travel Time (s)	4.1		31.0			4.7
Peak Hour Factor	0.75	0.92	0.91	0.91	0.92	0.80
Heavy Vehicles (%)	7%	2%	14%	4%	2%	4%
Adj. Flow (vph)	589	0	279	751	0	830
Shared Lane Traffic (%)						
Lane Group Flow (vph)	589	0	279	751	0	830
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		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	
Turn Type	Prot		NA	Free		NA
Protected Phases	2		1			1
Permitted Phases				Free		
Detector Phase	2		1			1
Switch Phase						
Minimum Initial (s)	4.0		4.0			4.0
Minimum Split (s)	22.0		22.0			22.0
Total Split (s)	22.0		38.0			38.0
Total Split (%)	36.7%		63.3%			63.3%
Maximum Green (s)	16.0		32.0			32.0
Yellow Time (s)	4.0		4.0			4.0
All-Red Time (s)	2.0		2.0			2.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0		3.0			3.0
Recall Mode	None		None			None

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	14.1		28.6	54.9		28.6
Actuated g/C Ratio	0.26		0.52	1.00		0.52
v/c Ratio	0.70		0.17	0.27		0.87
Control Delay	24.3		7.3	0.2		24.6
Queue Delay	0.0		0.0	0.0		0.0
Total Delay	24.3		7.3	0.2		24.6
LOS	C		A	A		C
Approach Delay	24.3		2.2			24.6
Approach LOS	C		A			C
Queue Length 50th (ft)	97		24	0		230
Queue Length 95th (ft)	115		41	0		308
Internal Link Dist (ft)	253		1969			230
Turn Bay Length (ft)				50		
Base Capacity (vph)	975		1888	2733		1089
Starvation Cap Reductn	0		0	0		0
Spillback Cap Reductn	0		0	0		0
Storage Cap Reductn	0		0	0		0
Reduced v/c Ratio	0.60		0.15	0.27		0.76

Intersection Summary

Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 54.9	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: US Route 9 & US Route 20

 Ø1	 Ø2
38 s	22 s

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations		↗	↗↗			↖
Traffic Vol, veh/h	0	12	254	0	40	664
Future Vol, veh/h	0	12	254	0	40	664
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	75	91	92	80	80
Heavy Vehicles, %	2	30	14	2	25	4
Mvmt Flow	0	16	279	0	50	830
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	140	0	-	279	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.35	-	-	4.475	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.585	-	-	2.4375	-
Pot Cap-1 Maneuver	0	808	-	0	1146	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	808	-	-	1146	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	9.5	0	0.5			
HCM LOS	A					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET		
Capacity (veh/h)	1146	-	808	-		
HCM Lane V/C Ratio	0.044	-	0.02	-		
HCM Control Delay (s)	8.3	0	9.5	-		
HCM Lane LOS	A	A	A	-		
HCM 95th %tile Q(veh)	0.1	-	0.1	-		

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	0	442	12	0	683
Future Vol, veh/h	40	0	442	12	0	683
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	85	92	75	75	92	91
Heavy Vehicles, %	5	2	7	30	2	4
Mvmt Flow	47	0	589	16	0	751
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	973	-	0	0	-	-
Stage 1	597	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Critical Hdwy	6.9	-	-	-	-	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	-	-	-	-	-
Pot Cap-1 Maneuver	244	0	-	-	0	-
Stage 1	504	0	-	-	0	-
Stage 2	655	0	-	-	0	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	244	-	-	-	-	-
Mov Cap-2 Maneuver	368	-	-	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	16.2	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 368		-		
HCM Lane V/C Ratio	-	- 0.128		-		
HCM Control Delay (s)	-	- 16.2		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.4		-		

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	7	1	428	716	7
Future Vol, veh/h	25	7	1	428	716	7
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	8	1	465	778	8

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1017	393	786	0	-	0
Stage 1	782	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	234	606	829	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	782	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	234	606	829	-	-	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	410	-	-	-	-	-
Stage 2	782	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	829	-	371	-	-
HCM Lane V/C Ratio	0.001	-	0.094	-	-
HCM Control Delay (s)	9.3	0	15.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2022 Build - AM

03/05/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	2	174	450	310	412
Future Volume (vph)	4	2	174	450	310	412
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			200
Storage Lanes	2	1	1			1
Taper Length (ft)	25		100			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3502	1615	1805	3438	3343	1615
Flt Permitted	0.950		0.429			
Satd. Flow (perm)	3502	1615	815	3438	3343	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		2				515
Link Speed (mph)	30			55	55	
Link Distance (ft)	375			486	1311	
Travel Time (s)	8.5			6.0	16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	5%	8%	0%
Adj. Flow (vph)	4	2	193	500	388	515
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	2	193	500	388	515
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	9.0	22.0	22.0	22.0
Total Split (s)	22.0	22.0	11.0	33.0	22.0	22.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	17.0	17.0	6.0	27.0	16.0	16.0
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	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	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2022 Build - AM
03/05/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	5.7	5.7	33.1	37.1	23.9	23.9
Actuated g/C Ratio	0.14	0.14	0.82	0.92	0.59	0.59
v/c Ratio	0.01	0.01	0.24	0.16	0.20	0.44
Control Delay	14.8	12.0	2.2	1.4	6.3	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	12.0	2.2	1.4	6.3	2.6
LOS	B	B	A	A	A	A
Approach Delay	13.8			1.6	4.2	
Approach LOS	B			A	A	
Queue Length 50th (ft)	0	0	0	0	17	0
Queue Length 95th (ft)	3	4	31	37	52	28
Internal Link Dist (ft)	295			406	1231	
Turn Bay Length (ft)			200			200
Base Capacity (vph)	1509	697	822	3174	1984	1168
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	0.00	0.00	0.23	0.16	0.20	0.44

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 40.2

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 3.1

Intersection LOS: A

Intersection Capacity Utilization 44.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: US Route 9 & Amazon Employee Driveway

 02 33 s	 04 22 s
 05 11 s	 06 22 s

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Vol, veh/h	0	3	0	624	311	1
Future Vol, veh/h	0	3	0	624	311	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	80	80
Heavy Vehicles, %	100	100	100	5	8	100
Mvmt Flow	0	3	0	693	389	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	195	390	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	8.9	6.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	4.3	3.2	-	-	-
Pot Cap-1 Maneuver	0	580	687	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	580	687	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.2	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	687	-	580	-	-	
HCM Lane V/C Ratio	-	-	0.006	-	-	
HCM Control Delay (s)	0	-	11.2	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	86	0	476	794	0
Future Vol, veh/h	23	86	0	476	794	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	83	83	89	89
Heavy Vehicles, %	9	0	0	17	7	0
Mvmt Flow	46	172	0	573	892	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1179	446	-	0	-	0
Stage 1	892	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.98	6.9	-	-	-	-
Critical Hdwy Stg 1	5.98	-	-	-	-	-
Critical Hdwy Stg 2	5.98	-	-	-	-	-
Follow-up Hdwy	3.59	3.3	-	-	-	-
Pot Cap-1 Maneuver	173	565	0	-	-	0
Stage 1	344	-	0	-	-	0
Stage 2	716	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	173	565	-	-	-	-
Mov Cap-2 Maneuver	173	-	-	-	-	-
Stage 1	344	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	26.2	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 382		-			
HCM Lane V/C Ratio	- 0.571		-			
HCM Control Delay (s)	- 26.2		-			
HCM Lane LOS	- D		-			
HCM 95th %tile Q(veh)	- 3.4		-			

HCM 6th TWSC
10: Proposed Employee Driveway & NYS Route 150

2022 Build - AM
03/05/2021

Intersection						
Int Delay, s/veh	5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	184	14	126	37	14	126
Future Vol, veh/h	184	14	126	37	14	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	200	15	137	40	15	137
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	215	0	522	208
Stage 1	-	-	-	-	208	-
Stage 2	-	-	-	-	314	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1355	-	515	832
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	741	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1355	-	462	832
Mov Cap-2 Maneuver	-	-	-	-	462	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	665	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		6.1		10.8	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	770	-	-	1355	-	
HCM Lane V/C Ratio	0.198	-	-	0.101	-	
HCM Control Delay (s)	10.8	-	-	8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-	

HCM 6th TWSC
11: Proposed Truck Entrance Driveway & NYS Route 150

2022 Build - AM
03/05/2021

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	310	0	12	163	0	0
Future Vol, veh/h	310	0	12	163	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	337	0	13	177	0	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	337	0	540	-
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	-	-	4.12	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	-
Pot Cap-1 Maneuver	-	-	1222	-	503	0
Stage 1	-	-	-	-	723	0
Stage 2	-	-	-	-	831	0
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1222	-	497	-
Mov Cap-2 Maneuver	-	-	-	-	497	-
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	821	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.5		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1222	-	
HCM Lane V/C Ratio	-	-	-	0.011	-	
HCM Control Delay (s)	0	-	-	8	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	-	-	-	0	-	

HCM 6th TWSC
12: Proposed Truck Exit Driveway & NYS Route 150

2022 Build - AM
03/05/2021

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↗
Traffic Vol, veh/h	181	0	0	51	0	17
Future Vol, veh/h	181	0	0	51	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	197	0	0	55	0	18
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	197
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	0	0	-	0	844
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	844
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.4	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	844	-	-			
HCM Lane V/C Ratio	0.022	-	-			
HCM Control Delay (s)	9.4	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2022 Build - PM
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	28	80	79	27	96	93	941	54	202	1311	181
Future Volume (vph)	136	28	80	79	27	96	93	941	54	202	1311	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	175		0	120		120
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.956			0.936			0.992				0.850
Flt Protected		0.973			0.981		0.950			0.950		
Satd. Flow (prot)	0	1738	0	0	1691	0	1805	3445	0	1736	3539	1615
Flt Permitted		0.676			0.785		0.204			0.148		
Satd. Flow (perm)	0	1208	0	0	1353	0	388	3445	0	270	3539	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			69			11				185
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		791			731			2049			1520	
Travel Time (s)		12.0			11.1			31.0			23.0	
Peak Hour Factor	0.97	0.97	0.97	0.78	0.78	0.78	0.96	0.96	0.96	0.98	0.98	0.98
Heavy Vehicles (%)	3%	0%	0%	2%	0%	5%	0%	4%	3%	4%	2%	0%
Adj. Flow (vph)	140	29	82	101	35	123	97	980	56	206	1338	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	251	0	0	259	0	97	1036	0	206	1338	185
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	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
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		10.0	22.0	22.0
Total Split (s)	19.0	19.0		19.0	19.0		27.5	27.5		13.5	41.0	41.0
Total Split (%)	31.7%	31.7%		31.7%	31.7%		45.8%	45.8%		22.5%	68.3%	68.3%
Maximum Green (s)	13.0	13.0		13.0	13.0		21.5	21.5		8.5	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		1.5	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0		5.0	6.0	6.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max

Lanes, Volumes, Timings
1: US Route 20 & NYS Route 150

2022 Build - PM
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	0
Act Effct Green (s)		12.6			12.6		22.1	22.1		36.0	35.0	35.0
Actuated g/C Ratio		0.21			0.21		0.37	0.37		0.60	0.59	0.59
v/c Ratio		0.89			0.76		0.67	0.81		0.58	0.64	0.18
Control Delay		54.6			33.5		45.1	23.5		13.8	10.1	1.6
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		54.6			33.5		45.1	23.5		13.8	10.1	1.6
LOS		D			C		D	C		B	B	A
Approach Delay		54.6			33.5			25.3			9.6	
Approach LOS		D			C			C			A	
Queue Length 50th (ft)		75			63		29	174		29	149	0
Queue Length 95th (ft)		#196			#125		#102	#277		74	209	20
Internal Link Dist (ft)		711			651			1969			1440	
Turn Bay Length (ft)							175			120		120
Base Capacity (vph)		292			349		144	1286		372	2080	1025
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.86			0.74		0.67	0.81		0.55	0.64	0.18

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.6

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 77.4%

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: 1: US Route 20 & NYS Route 150

 Ø1	 Ø2	 Ø4
13.5 s	27.5 s	19 s
 Ø6		 Ø8
41 s		19 s

Lanes, Volumes, Timings
2: US Route 9 & US Route 20

2022 Build - PM
03/05/2021

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	780	0	668	779	0	409
Future Volume (vph)	780	0	668	779	0	409
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	0	
Storage Lanes	2	0		2	0	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	0.95	0.88	1.00	1.00
Frt				0.850		
Flt Protected	0.950					
Satd. Flow (prot)	3433	0	3505	2787	0	1743
Flt Permitted	0.950					
Satd. Flow (perm)	3433	0	3505	2787	0	1743
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)				515		
Link Speed (mph)	55		45			45
Link Distance (ft)	333		2049			310
Travel Time (s)	4.1		31.0			4.7
Peak Hour Factor	0.97	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles (%)	2%	2%	3%	2%	2%	9%
Adj. Flow (vph)	804	0	726	820	0	431
Shared Lane Traffic (%)						
Lane Group Flow (vph)	804	0	726	820	0	431
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		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	
Turn Type	Prot		NA	Free		NA
Protected Phases	2		1			1
Permitted Phases				Free		
Detector Phase	2		1			1
Switch Phase						
Minimum Initial (s)	4.0		4.0			4.0
Minimum Split (s)	22.0		22.0			22.0
Total Split (s)	22.0		23.0			23.0
Total Split (%)	48.9%		51.1%			51.1%
Maximum Green (s)	16.0		17.0			17.0
Yellow Time (s)	4.0		4.0			4.0
All-Red Time (s)	2.0		2.0			2.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	6.0		6.0			6.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0		3.0			3.0
Recall Mode	None		None			None

						
Lane Group	NBL	NBR	SET	SER	NWL	NWT
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	13.9		15.0	41.2		15.0
Actuated g/C Ratio	0.34		0.36	1.00		0.36
v/c Ratio	0.69		0.57	0.29		0.68
Control Delay	15.7		12.8	0.3		17.9
Queue Delay	0.0		0.0	0.0		0.0
Total Delay	15.7		12.8	0.3		17.9
LOS	B		B	A		B
Approach Delay	15.7		6.1			17.9
Approach LOS	B		A			B
Queue Length 50th (ft)	86		73	0		88
Queue Length 95th (ft)	132		114	0		#165
Internal Link Dist (ft)	253		1969			230
Turn Bay Length (ft)				50		
Base Capacity (vph)	1358		1474	2787		732
Starvation Cap Reductn	0		0	0		0
Spillback Cap Reductn	0		0	0		0
Storage Cap Reductn	0		0	0		0
Reduced v/c Ratio	0.59		0.49	0.29		0.59

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 41.2

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 10.7

Intersection LOS: B

Intersection Capacity Utilization 53.8%

ICU Level of Service A

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 2: US Route 9 & US Route 20

 Ø1	 Ø2
23 s	22 s

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations		↗	↗↗			↖
Traffic Vol, veh/h	0	61	668	0	36	409
Future Vol, veh/h	0	61	668	0	36	409
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	97	92	92	95	95
Heavy Vehicles, %	2	5	3	2	14	9
Mvmt Flow	0	63	726	0	38	431
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	363	0	-	726	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.975	-	-	4.31	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3475	-	-	2.333	-
Pot Cap-1 Maneuver	0	627	-	0	811	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	627	-	-	811	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	11.4	0	0.8			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET		
Capacity (veh/h)	811	-	627	-		
HCM Lane V/C Ratio	0.047	-	0.1	-		
HCM Control Delay (s)	9.7	0	11.4	-		
HCM Lane LOS	A	A	B	-		
HCM 95th %tile Q(veh)	0.1	-	0.3	-		

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	0	780	61	0	779
Future Vol, veh/h	36	0	780	61	0	779
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	95	92	97	97	92	92
Heavy Vehicles, %	14	2	2	5	2	2
Mvmt Flow	38	0	804	63	0	847
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1260	-	0	0	-	-
Stage 1	836	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Critical Hdwy	7.08	-	-	-	-	-
Critical Hdwy Stg 1	6.08	-	-	-	-	-
Critical Hdwy Stg 2	6.08	-	-	-	-	-
Follow-up Hdwy	3.64	-	-	-	-	-
Pot Cap-1 Maneuver	147	0	-	-	0	-
Stage 1	357	0	-	-	0	-
Stage 2	594	0	-	-	0	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	147	-	-	-	-	-
Mov Cap-2 Maneuver	265	-	-	-	-	-
Stage 1	357	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	20.8	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 265		-		
HCM Lane V/C Ratio	-	- 0.143		-		
HCM Control Delay (s)	-	- 20.8		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.5		-		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	3	810	788	27
Future Vol, veh/h	13	0	3	810	788	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	Free
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	3	880	857	29

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1303	429	857	0	-	0
Stage 1	857	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	152	574	779	-	-	0
Stage 1	376	-	-	-	-	0
Stage 2	612	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	151	574	779	-	-	-
Mov Cap-2 Maneuver	275	-	-	-	-	-
Stage 1	373	-	-	-	-	-
Stage 2	612	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	779	-	275	-
HCM Lane V/C Ratio	0.004	-	0.051	-
HCM Control Delay (s)	9.6	0	18.8	-
HCM Lane LOS	A	A	C	-
HCM 95th %tile Q(veh)	0	-	0.2	-

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2022 Build - PM

03/05/2021

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 			 	 	
Traffic Volume (vph)	435	186	128	389	516	299
Future Volume (vph)	435	186	128	389	516	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			200
Storage Lanes	2	1	1			1
Taper Length (ft)	25		100			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3502	1615	1805	3438	3471	1615
Flt Permitted	0.950		0.361			
Satd. Flow (perm)	3502	1615	686	3438	3471	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		196				325
Link Speed (mph)	30			55	55	
Link Distance (ft)	375			486	1068	
Travel Time (s)	8.5			6.0	13.2	
Peak Hour Factor	0.95	0.95	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	5%	4%	0%
Adj. Flow (vph)	458	196	139	423	561	325
Shared Lane Traffic (%)						
Lane Group Flow (vph)	458	196	139	423	561	325
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	8.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	8.0	30.0	22.0	22.0
Total Split (%)	45.5%	45.5%	14.5%	54.5%	40.0%	40.0%
Maximum Green (s)	20.0	20.0	4.0	24.0	16.0	16.0
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	0.5	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	4.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max

Lanes, Volumes, Timings
6: US Route 9 & Amazon Employee Driveway

2022 Build - PM
03/05/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	11.7	11.7	26.1	24.1	17.8	17.8
Actuated g/C Ratio	0.25	0.25	0.56	0.51	0.38	0.38
v/c Ratio	0.52	0.36	0.29	0.24	0.43	0.40
Control Delay	17.3	4.7	7.5	7.3	13.5	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	4.7	7.5	7.3	13.5	3.8
LOS	B	A	A	A	B	A
Approach Delay	13.5			7.4	9.9	
Approach LOS	B			A	A	
Queue Length 50th (ft)	54	0	15	28	58	0
Queue Length 95th (ft)	87	34	43	61	111	44
Internal Link Dist (ft)	295			406	988	
Turn Bay Length (ft)			200			200
Base Capacity (vph)	1502	804	478	1769	1319	815
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	0.30	0.24	0.29	0.24	0.43	0.40

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 46.8

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 10.4

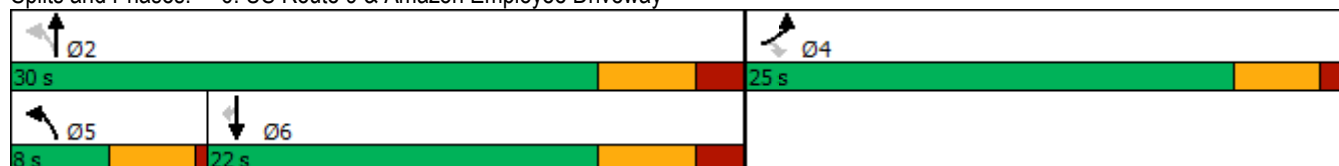
Intersection LOS: B

Intersection Capacity Utilization 46.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: US Route 9 & Amazon Employee Driveway



Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	1	517	688	14
Future Vol, veh/h	0	11	1	517	688	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	92	92	92	92
Heavy Vehicles, %	100	100	100	5	3	100
Mvmt Flow	0	22	1	562	748	15
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	382	763	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	8.9	6.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	4.3	3.2	-	-	-
Pot Cap-1 Maneuver	0	406	425	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	406	425	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14.4	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	425	-	406	-	-	
HCM Lane V/C Ratio	0.003	-	0.054	-	-	
HCM Control Delay (s)	13.5	0	14.4	-	-	
HCM Lane LOS	B	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	81	0	488	1613	0
Future Vol, veh/h	24	81	0	488	1613	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	88	0	530	1753	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2018	877	-	0	-	0
Stage 1	1753	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	51	292	0	-	-	0
Stage 1	124	-	0	-	-	0
Stage 2	755	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	51	292	-	-	-	-
Mov Cap-2 Maneuver	51	-	-	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	94.8	0		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 140		-			
HCM Lane V/C Ratio	- 0.815		-			
HCM Control Delay (s)	- 94.8		-			
HCM Lane LOS	- F		-			
HCM 95th %tile Q(veh)	- 5.1		-			

HCM 6th TWSC
10: Proposed Employee Entrance Driveway & NYS Route 150

2022 Build - PM
03/05/2021

Intersection						
Int Delay, s/veh	4.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	14	126	141	14	126
Future Vol, veh/h	118	14	126	141	14	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	15	137	153	15	137
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	143	0	563	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	427	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1440	-	487	913
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	658	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1440	-	436	913
Mov Cap-2 Maneuver	-	-	-	-	436	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	590	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	3.7		10.4		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	823	-	-	1440	-	
HCM Lane V/C Ratio	0.185	-	-	0.095	-	
HCM Control Delay (s)	10.4	-	-	7.8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-	

HCM 6th TWSC
11: Proposed Truck Entrance Driveway & NYS Route 150

2022 Build - PM
03/05/2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	244	0	34	267	0	0
Future Vol, veh/h	244	0	34	267	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	265	0	37	290	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	265	0	629	-
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	364	-
Critical Hdwy	-	-	4.12	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	-
Pot Cap-1 Maneuver	-	-	1299	-	446	0
Stage 1	-	-	-	-	779	0
Stage 2	-	-	-	-	703	0
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1299	-	431	-
Mov Cap-2 Maneuver	-	-	-	-	431	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	679	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.9		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1299	-	
HCM Lane V/C Ratio	-	-	-	0.028	-	
HCM Control Delay (s)	0	-	-	7.9	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	-	-	-	0.1	-	

HCM 6th TWSC
12: Proposed Truck Exit Driveway & NYS Route 150

2022 Build - PM
03/05/2021

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↗
Traffic Vol, veh/h	108	0	0	155	0	24
Future Vol, veh/h	108	0	0	155	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	117	0	0	168	0	26
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	117
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	0	0	-	0	935
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	935
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	935	-	-			
HCM Lane V/C Ratio	0.028	-	-			
HCM Control Delay (s)	9	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
5: US Route 20 & NYS Route 150

2022 Build - AM - Mitigation

03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	28	99	115	20	187	54	1039	22	41	744	101
Future Volume (vph)	183	28	99	115	20	187	54	1039	22	41	744	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	175		0	120		120
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			100			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.883			0.864			0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1659	0	1687	1559	0	1388	3424	0	1597	3374	1313
Flt Permitted	0.284			0.656			0.340			0.112		
Satd. Flow (perm)	529	1659	0	1165	1559	0	497	3424	0	188	3374	1313
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		119			150			3				112
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		790			731			2049			1621	
Travel Time (s)		12.0			11.1			31.0			24.6	
Peak Hour Factor	0.80	0.80	0.80	0.74	0.74	0.74	0.79	0.79	0.79	0.90	0.90	0.90
Heavy Vehicles (%)	2%	5%	0%	7%	8%	5%	30%	5%	10%	13%	7%	23%
Adj. Flow (vph)	229	35	124	155	27	253	68	1315	28	46	827	112
Shared Lane Traffic (%)												
Lane Group Flow (vph)	229	159	0	155	280	0	68	1343	0	46	827	112
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
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	22.0		22.0	22.0		22.0	22.0		9.0	22.0	22.0
Total Split (s)	9.0	31.0		22.0	22.0		33.0	33.0		9.0	42.0	42.0
Total Split (%)	12.3%	42.5%		30.1%	30.1%		45.2%	45.2%		12.3%	57.5%	57.5%
Maximum Green (s)	5.0	25.0		16.0	16.0		27.0	27.0		4.0	36.0	36.0
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		3.5	4.0	4.0
All-Red Time (s)	0.5	2.0		2.0	2.0		2.0	2.0		1.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max

Lanes, Volumes, Timings
5: US Route 20 & NYS Route 150

2022 Build - AM - Mitigation
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effect Green (s)	24.2	22.2		13.2	13.2		30.8	30.8		37.1	36.1	36.1
Actuated g/C Ratio	0.34	0.32		0.19	0.19		0.44	0.44		0.53	0.51	0.51
v/c Ratio	0.85	0.26		0.71	0.68		0.31	0.89		0.26	0.48	0.15
Control Delay	48.6	7.1		45.5	21.3		21.3	31.0		12.5	12.7	2.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	48.6	7.1		45.5	21.3		21.3	31.0		12.5	12.7	2.9
LOS	D	A		D	C		C	C		B	B	A
Approach Delay		31.6			29.9			30.5			11.5	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	73	12		63	50		21	~346		9	119	0
Queue Length 95th (ft)	#133	39		97	83		48	#385		25	171	23
Internal Link Dist (ft)		710			651			1969			1541	
Turn Bay Length (ft)	150			150			175			120		120
Base Capacity (vph)	270	667		265	471		217	1504		179	1731	728
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.85	0.24		0.58	0.59		0.31	0.89		0.26	0.48	0.15

Intersection Summary

Area Type: Other

Cycle Length: 73

Actuated Cycle Length: 70.3

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 24.8

Intersection LOS: C

Intersection Capacity Utilization 73.0%

ICU Level of Service C

Analysis Period (min) 15

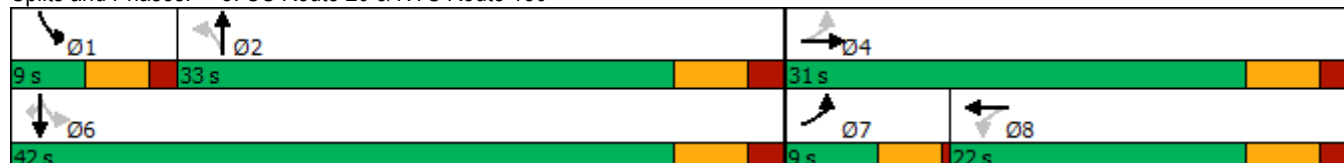
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: US Route 20 & NYS Route 150



HCM 6th TWSC
23: Proposed Employee Driveway & NYS Route 150

2022 Build - AM - Mitigation

03/05/2021

Intersection						
Int Delay, s/veh	5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	184	14	126	37	14	126
Future Vol, veh/h	184	14	126	37	14	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	200	15	137	40	15	137
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	215	0	522	208
Stage 1	-	-	-	-	208	-
Stage 2	-	-	-	-	314	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1355	-	515	832
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	741	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1355	-	463	832
Mov Cap-2 Maneuver	-	-	-	-	463	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	666	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	6.1		10.8		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	771	-	-	1355	-	
HCM Lane V/C Ratio	0.197	-	-	0.101	-	
HCM Control Delay (s)	10.8	-	-	8	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-	

HCM 6th TWSC
21: Proposed Truck Entrance Driveway & NYS Route 150

2022 Build - AM - Mitigation
03/05/2021

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱		↱	↱	↱	
Traffic Vol, veh/h	310	0	12	163	0	0
Future Vol, veh/h	310	0	12	163	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	337	0	13	177	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	337	0	540	-
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	-	-	4.12	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	-
Pot Cap-1 Maneuver	-	-	1222	-	503	0
Stage 1	-	-	-	-	723	0
Stage 2	-	-	-	-	831	0
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1222	-	497	-
Mov Cap-2 Maneuver	-	-	-	-	497	-
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	822	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1222	-	
HCM Lane V/C Ratio	-	-	-	0.011	-	
HCM Control Delay (s)	0	-	-	8	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Lanes, Volumes, Timings
5: US Route 20 & NYS Route 150

2022 Build - PM - Mitigation

03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	28	80	79	27	96	93	941	54	202	1311	181
Future Volume (vph)	136	28	80	79	27	96	93	941	54	202	1311	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	175		0	120		120
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			100			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.889			0.883			0.992				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1689	0	1770	1615	0	1805	3445	0	1736	3539	1615
Flt Permitted	0.476			0.685			0.204			0.125		
Satd. Flow (perm)	878	1689	0	1276	1615	0	388	3445	0	228	3539	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			123			8				152
Link Speed (mph)		45			45			45				45
Link Distance (ft)		791			731			2049			1520	
Travel Time (s)		12.0			11.1			31.0			23.0	
Peak Hour Factor	0.97	0.97	0.97	0.78	0.78	0.78	0.96	0.96	0.96	0.98	0.98	0.98
Heavy Vehicles (%)	3%	0%	0%	2%	0%	5%	0%	4%	3%	4%	2%	0%
Adj. Flow (vph)	140	29	82	101	35	123	97	980	56	206	1338	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	111	0	101	158	0	97	1036	0	206	1338	185
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		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
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	22.0		22.0	22.0		22.0	22.0		10.0	22.0	22.0
Total Split (s)	8.0	30.0		22.0	22.0		33.0	33.0		17.0	50.0	50.0
Total Split (%)	10.0%	37.5%		27.5%	27.5%		41.3%	41.3%		21.3%	62.5%	62.5%
Maximum Green (s)	4.0	24.0		16.0	16.0		27.0	27.0		12.0	44.0	44.0
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		3.5	4.0	4.0
All-Red Time (s)	0.5	2.0		2.0	2.0		2.0	2.0		1.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		6.0	6.0		6.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max

Lanes, Volumes, Timings
5: US Route 20 & NYS Route 150

2022 Build - PM - Mitigation
03/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effect Green (s)	21.1	19.1		11.1	11.1		29.5	29.5		45.1	44.1	44.1
Actuated g/C Ratio	0.28	0.25		0.15	0.15		0.39	0.39		0.60	0.59	0.59
v/c Ratio	0.48	0.24		0.54	0.46		0.64	0.76		0.63	0.64	0.18
Control Delay	27.1	15.9		40.5	13.7		45.0	25.9		19.6	12.7	2.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	27.1	15.9		40.5	13.7		45.0	25.9		19.6	12.7	2.8
LOS	C	B		D	B		D	C		B	B	A
Approach Delay		22.2			24.1			27.5			12.5	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	51	25		44	14		36	213		39	198	6
Queue Length 95th (ft)	94	63		76	47		#126	#371		110	309	35
Internal Link Dist (ft)		711			651			1969			1440	
Turn Bay Length (ft)	150			150			175			120		120
Base Capacity (vph)	292	568		272	441		152	1357		377	2075	1009
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.48	0.20		0.37	0.36		0.64	0.76		0.55	0.64	0.18

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 75.2

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 19.2

Intersection LOS: B

Intersection Capacity Utilization 74.6%

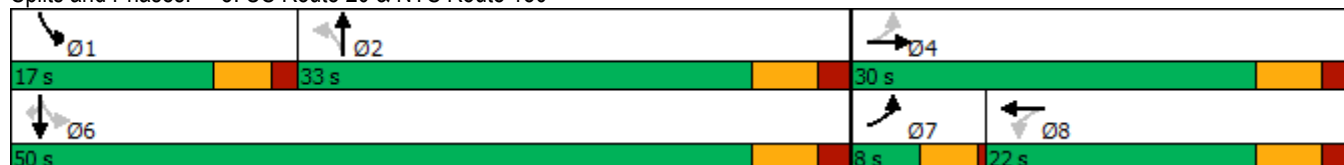
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: US Route 20 & NYS Route 150



Intersection						
Int Delay, s/veh	4.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	14	126	141	14	126
Future Vol, veh/h	118	14	126	141	14	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	15	137	153	15	137
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	143	0	563	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	427	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1440	-	487	913
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	658	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1440	-	441	913
Mov Cap-2 Maneuver	-	-	-	-	441	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	595	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.7		10.3	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	825	-	-	1440	-	
HCM Lane V/C Ratio	0.184	-	-	0.095	-	
HCM Control Delay (s)	10.3	-	-	7.8	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-	

HCM 6th TWSC
9: Proposed Truck Entrance Driveway & NYS Route 150

2022 Build - PM - Mitigation
03/05/2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	244	0	34	267	0	0
Future Vol, veh/h	244	0	34	267	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	265	0	37	290	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	265	0	629	-
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	364	-
Critical Hdwy	-	-	4.12	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	-
Pot Cap-1 Maneuver	-	-	1299	-	446	0
Stage 1	-	-	-	-	779	0
Stage 2	-	-	-	-	703	0
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1299	-	434	-
Mov Cap-2 Maneuver	-	-	-	-	434	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	683	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.9		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1299	-	
HCM Lane V/C Ratio	-	-	-	0.028	-	
HCM Control Delay (s)	0	-	-	7.9	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0.1	-	





McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE		
FOR REVIEW		
NO.	DATE	DESCRIPTION

CLIENT:

DRAWN TCH

DESIGNED TCH

CHECKED AJF

SCALE 1"=100'

DATE MARCH 2021

PROJECT 18800.00

PROJECT:

SCANNELL PROPERTIES

CASTLETON-ON-HUDSON, STATE OF NEW YORK

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DRAWING TITLE

PROPOSED ROADWAY IMPROVEMENTS

DRAWING NUMBER

C-01

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