

Preliminary Traffic Analysis Report

SR 0001 Section 210 Reconstruction
SR 3033 Newark Road Interchange

Pennsylvania Department of Transportation District 6-0

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1 Introduction

1.1 Study Objectives

AECOM has performed a preliminary traffic study which analyzes the traffic conditions at the interchange of SR 0001 at SR 3033 in New Garden Township, Chester County, Pennsylvania. The purpose of this study is to evaluate the operations at the study intersections and determine the intersection control and lane configurations which will lead to acceptable intersection operations in the future Opening Year 2030 Conditions and future Design Year 2050 Conditions.

1.2 Area of Analysis

The study area consists of the existing interchange of SR 0001 at SR 3033 in New Garden Township, Chester County, Pennsylvania. A site location map of the study area can be seen in **Figure 1**. SR 0001 is classified as an urban principal arterial and is a limited access highway. SR 3033 is classified as urban major collector road. The following intersections were evaluated for this study:

- SR 3033 (Newark Road) with SR 0001 Northbound On/Off Ramp – Unsignalized
- SR 3033 (Newark Road) with SR 0001 Southbound On/Off Ramp – Unsignalized

Both SR 3033 intersections are three-legged intersections with minor approach stop control and a two-lane major roadway. The aerial view of the existing lane configuration and traffic control at the study intersections are shown in **Figure 2**.

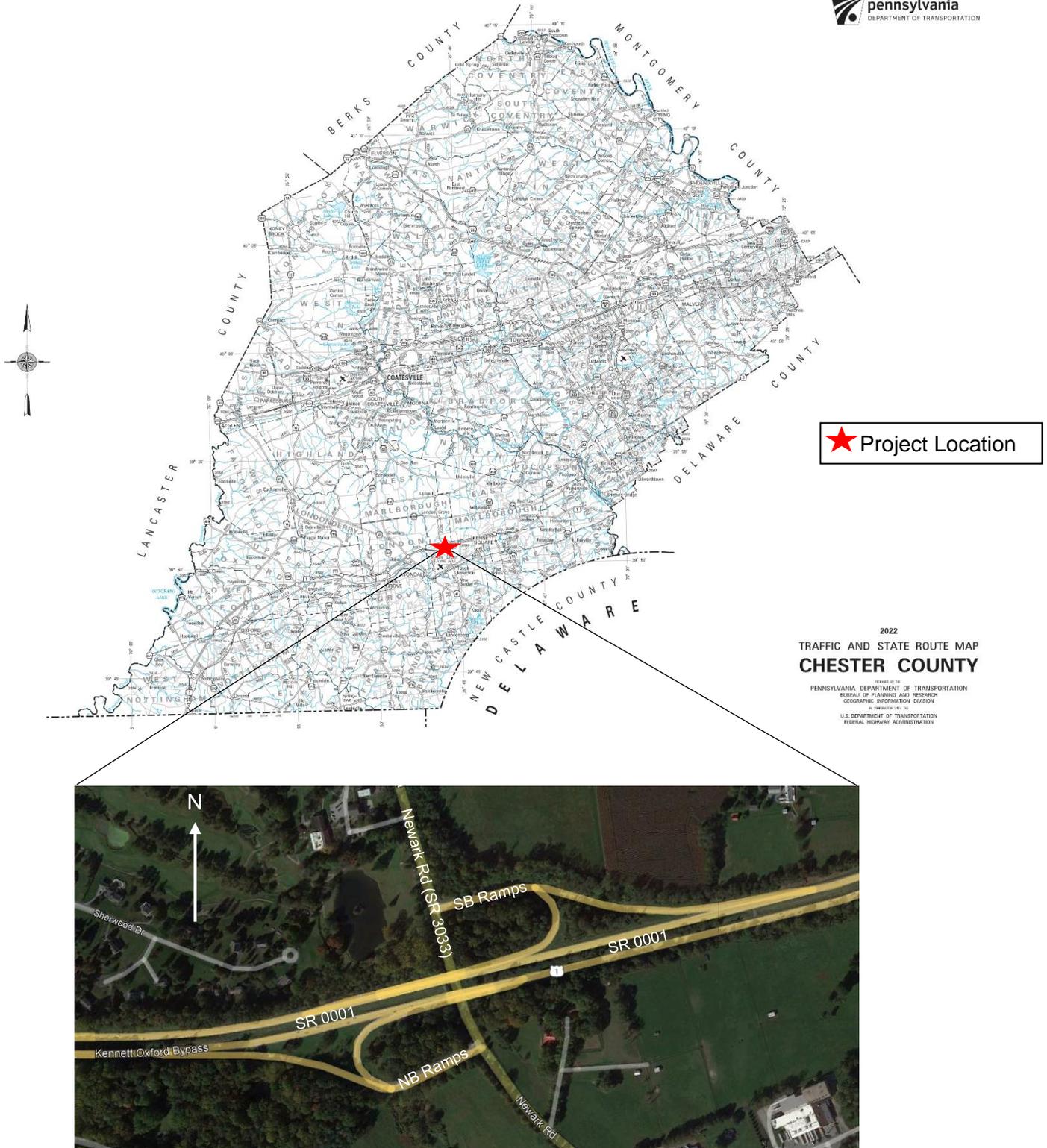
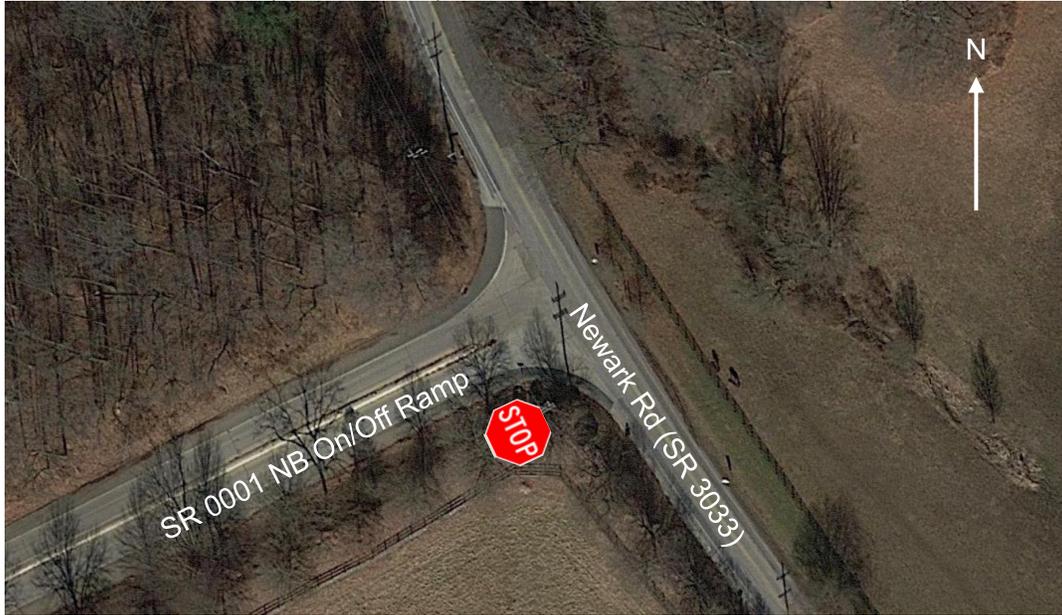


Figure 1. Study Location Map

SR 3033 (Newark Road) with SR 0001 Northbound On/Off Ramp



SR 3033 (Newark Road) with SR 0001 Southbound On/Off Ramp

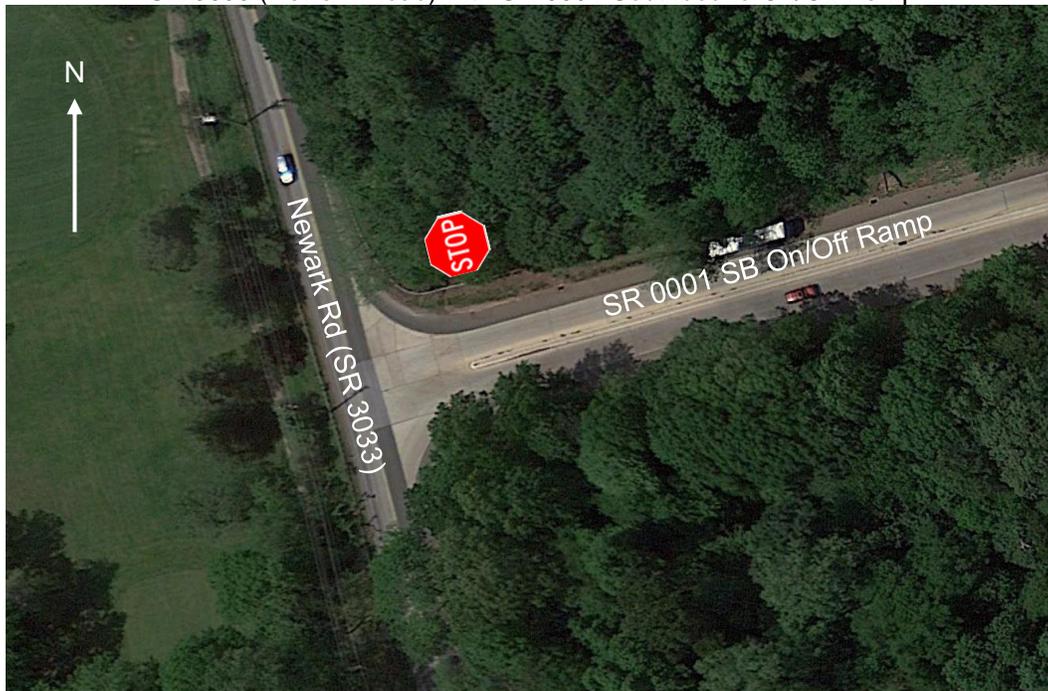


Figure 2. Intersection Configurations & Control

2 Data Collection

2.1 Automatic Traffic Recorder (ATR) Counts

Automatic Traffic Recorder (ATR) counts were conducted at five locations within the study area. The ATR data was collected by Tri-State Traffic Data, Inc. (Tri-State) between Tuesday May 17th, 2022 and Wednesday May 25th, 2022. Data was collected in 15-minute intervals to determine typical weekday traffic volumes, speeds, and vehicle classifications.

The ATRs were placed at the following locations:

1. SR 0001 Northbound On-Ramp at SR 3033
2. SR 0001 Northbound Off-Ramp at SR 3033
3. SR 0001 Southbound On-Ramp at SR 3033
4. SR 0001 Southbound Off-Ramp at SR 3033
5. SR 3033 between SR 0001 Northbound and Southbound ramps

Based on ATR data, Average Daily Traffic (ADT) volumes and 24-hour average heavy vehicle percentages, collected on Wednesday May 18th, 2022, have been compiled and are summarized in **Table 1**. The ATR data was used to confirm the traffic volumes at the intersections as well as assess the peak hour for the turning movement counts. Copies of the ATR count data are provided in **Appendix A**.

Table 1. Average Daily Traffic (ADT) and Heavy Vehicle Percent (HV%)

ATR Location		ADT	HV%
SR 3033 at SR 0001 Northbound Ramps	SR 0001 Northbound On-Ramp	1,375	15%
	SR 0001 Northbound Off-Ramp	2,530	19%
	Total	3,910	17%
SR 3033 at SR 0001 Southbound Ramps	SR 0001 Southbound On-Ramp	2,305	15%
	SR 0001 Southbound Off-Ramp	1,560	15%
	Total	3,860	15%
SR 3033 between SR 0001 Northbound and Southbound Ramps	Northbound	3,700	13%
	Southbound	2,920	16%
	Total	6,615	14%

2.2 Manual Turning Movement Counts

Tri-State performed vehicular manual turning movement counts (TMCs) at the two intersections on Wednesday May 18th, 2022 from 6:00 a.m. to 10:00 a.m. and 3:00 p.m. to 7:00 p.m. The TMCs were taken at the following locations:

1. SR 3033 at SR 0001 Northbound ramps
2. SR 3033 at SR 0001 Southbound ramps

The TMCs included vehicular volumes (light and heavy vehicles) and pedestrians at each of the study intersections. An insignificant amount of pedestrians were counted as the current roadway does not provide pedestrian infrastructure. Copies of the TMC data are provided in **Appendix B**.

3 Traffic Volume Development

3.1 Existing Year 2022 Traffic Volume Development

The TMCs were used to establish the Existing Year 2022 morning and evening peak hours for the interchange. The peak hour vehicular volumes and heavy vehicle percentages for each peak hour at each study intersection can be seen in **Appendix C**, with the determined peak hours listed below:

- AM Peak Hour: 7:15 a.m. – 8:15 a.m.
- PM Peak Hour: 4:45 p.m. – 5:45 p.m.

Traffic volumes were balanced along the major roadway segment. No COVID adjustment factor was applied per Pennsylvania Department of Transportation (PennDOT) Strike Off Letter 494-21-07 stating that the traffic counts conducted after September 7, 2021 shall not require adjustments. The Existing Year 2022 AM peak hour and PM peak hour traffic volumes utilized for the analysis are shown on **Figure 3** and **Figure 4**, respectively.

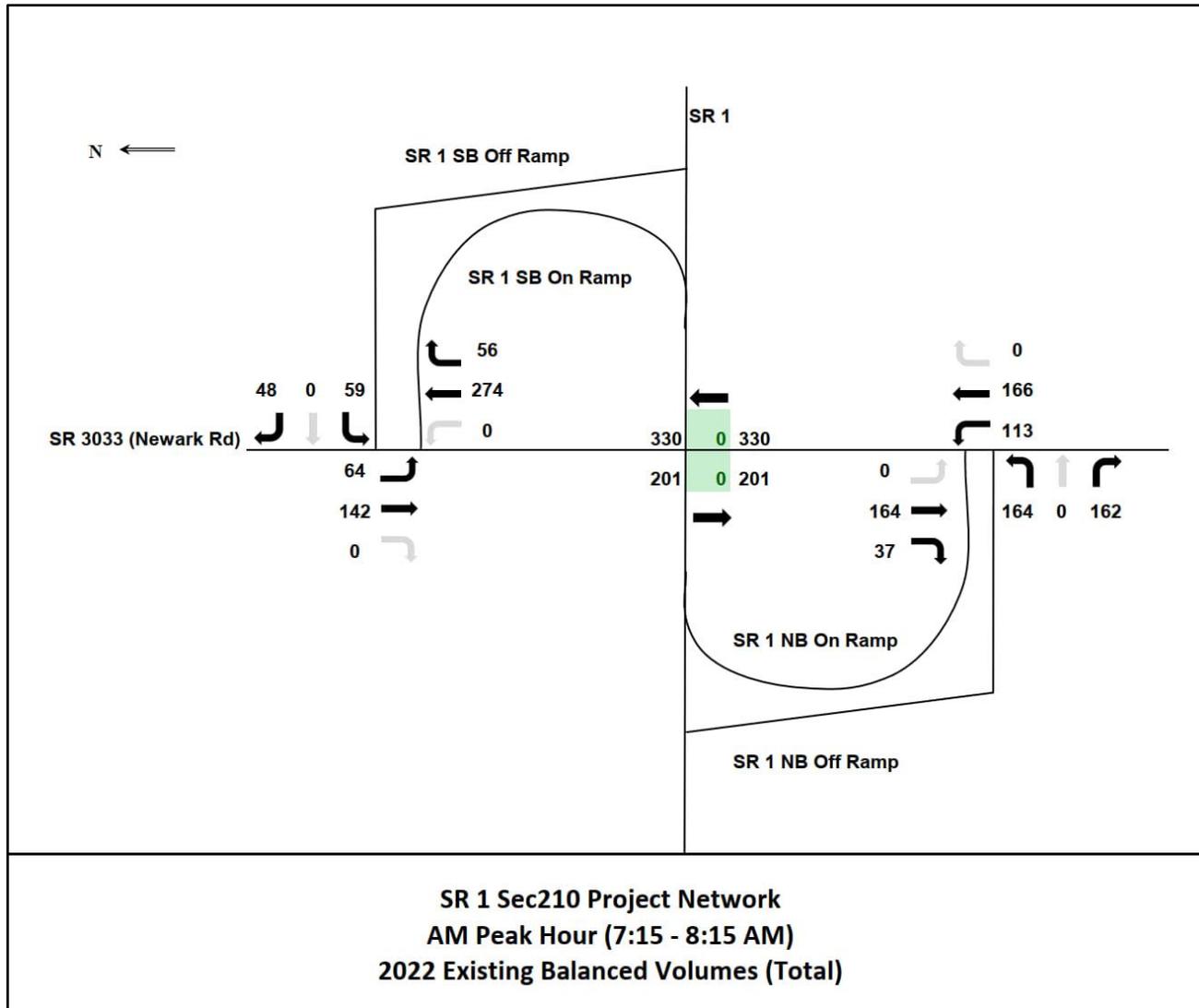


Figure 3. Existing Conditions AM Peak Hour Volumes

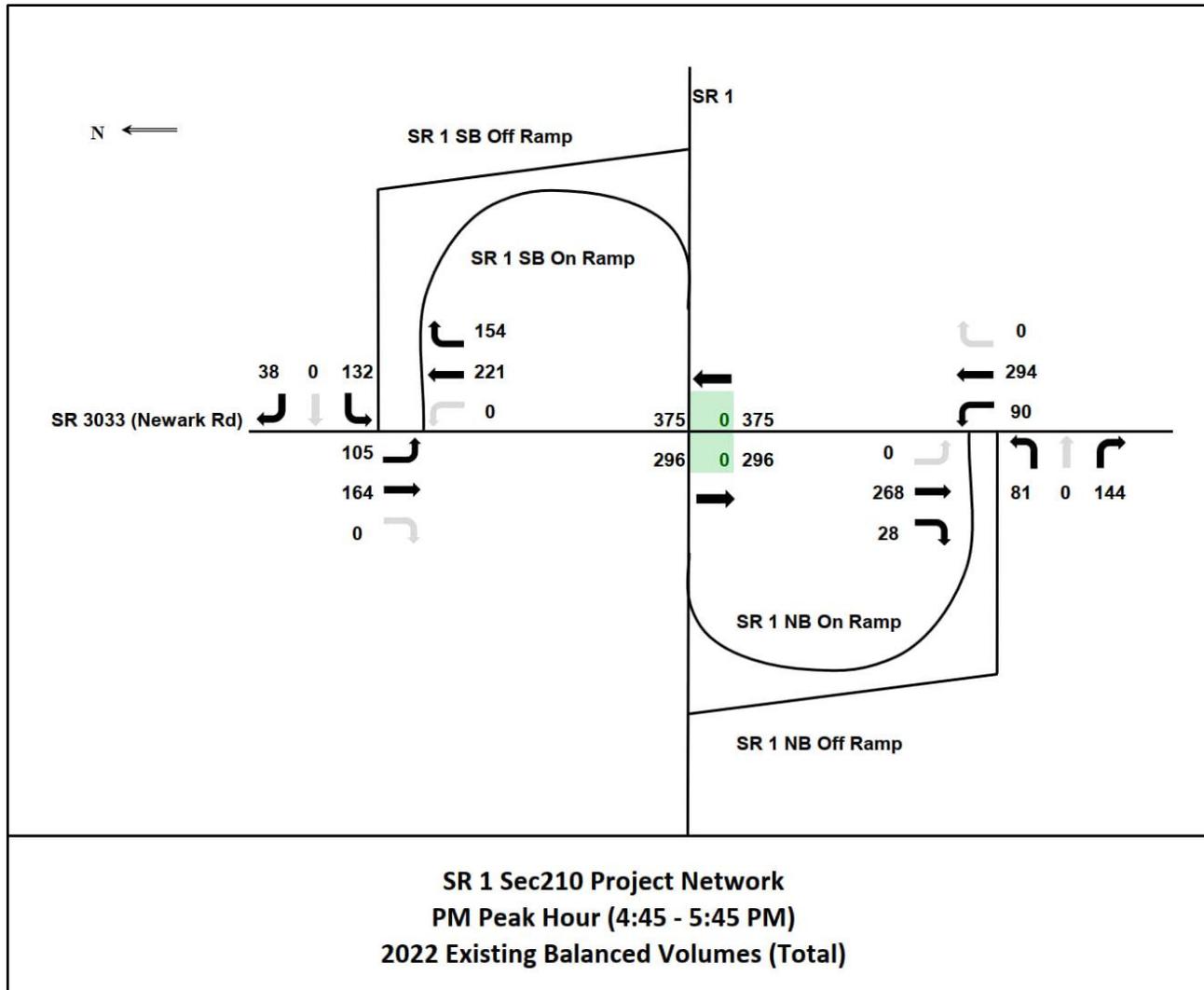


Figure 4. Existing Conditions PM Peak Hour Volumes

3.2 Future Year Traffic Volume Development

Future traffic volumes were determined by combining background growth and known development volumes. For background growth, AECOM contacted a representative of PennDOT District 6-0 who indicated that the rural non-interstate growth factor of 0.77 from the PennDOT county growth chart for Chester County should be utilized. The compounded traffic growth rate was applied to the Existing Year 2022 AM and PM peak hour to get Opening Year 2030 and Design Year 2050 background traffic volumes. Local municipalities, including New Garden Township, were contacted to provide information on committed or likely future developments that would bring additional traffic through the interchange. The Modern Mushroom Business Park development was identified as potentially happening by 2030, so the future site traffic from the 2017 Traffic Impact Study was overlaid on top of the background growth. This allows for a conservative approach to analyzing the worst-case traffic volumes.

The resulting Opening Year 2030 and Design Year 2050 AM and PM peak hour traffic volumes can be seen in **Figure 5** through **Figure 8**.

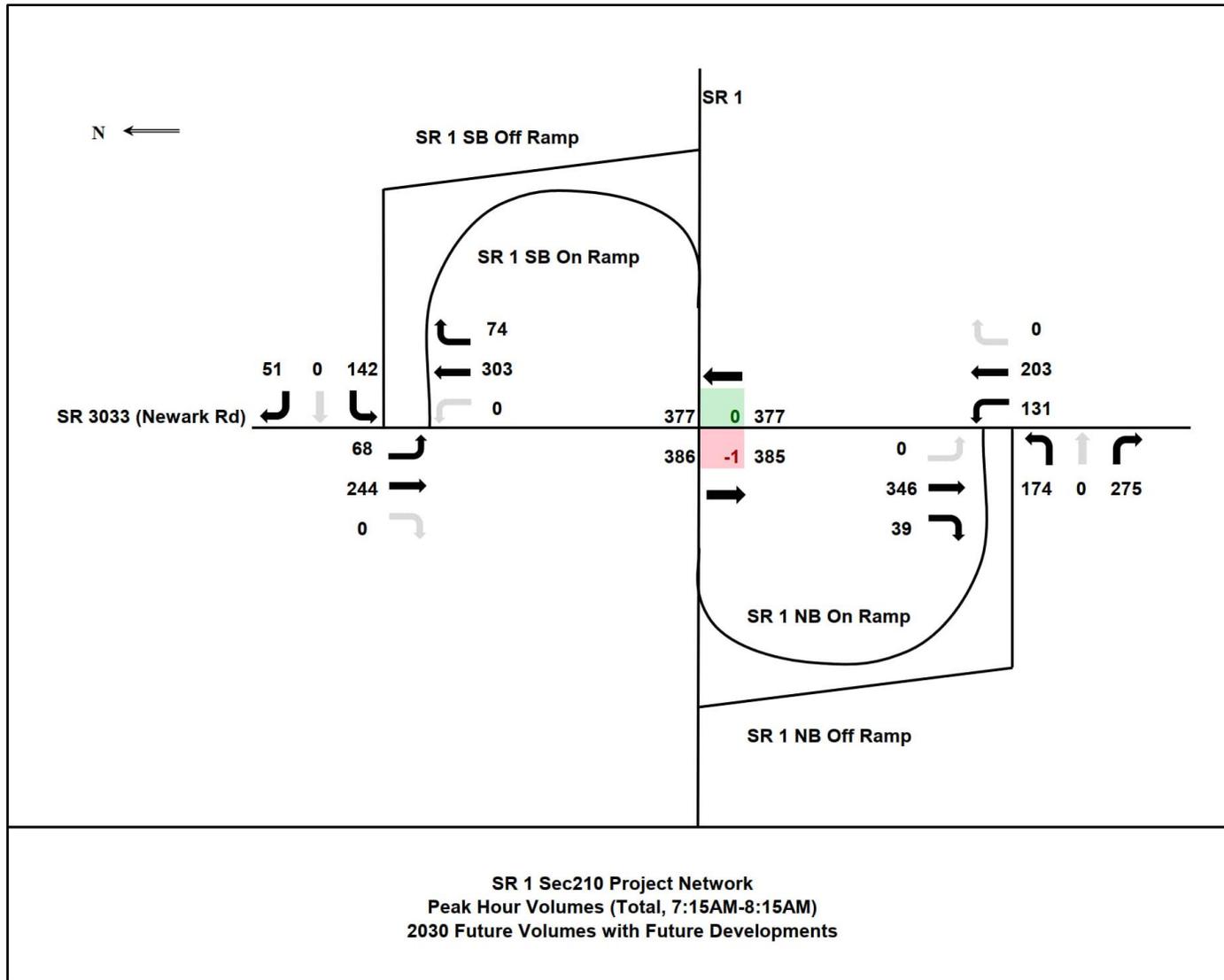


Figure 5. 2030 Opening Year AM Peak Hour Volumes

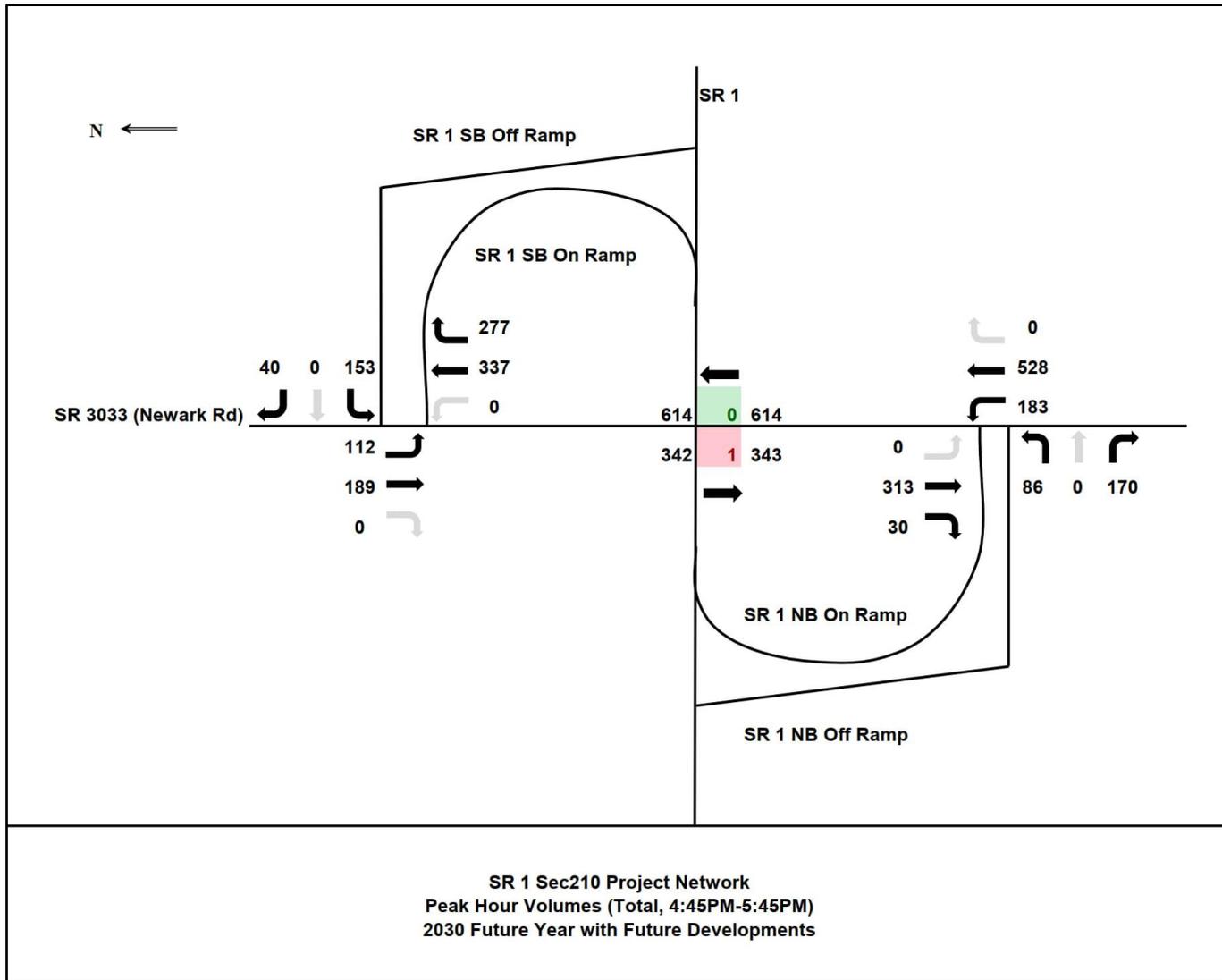


Figure 6. 2030 Opening Year PM Peak Hour Volumes

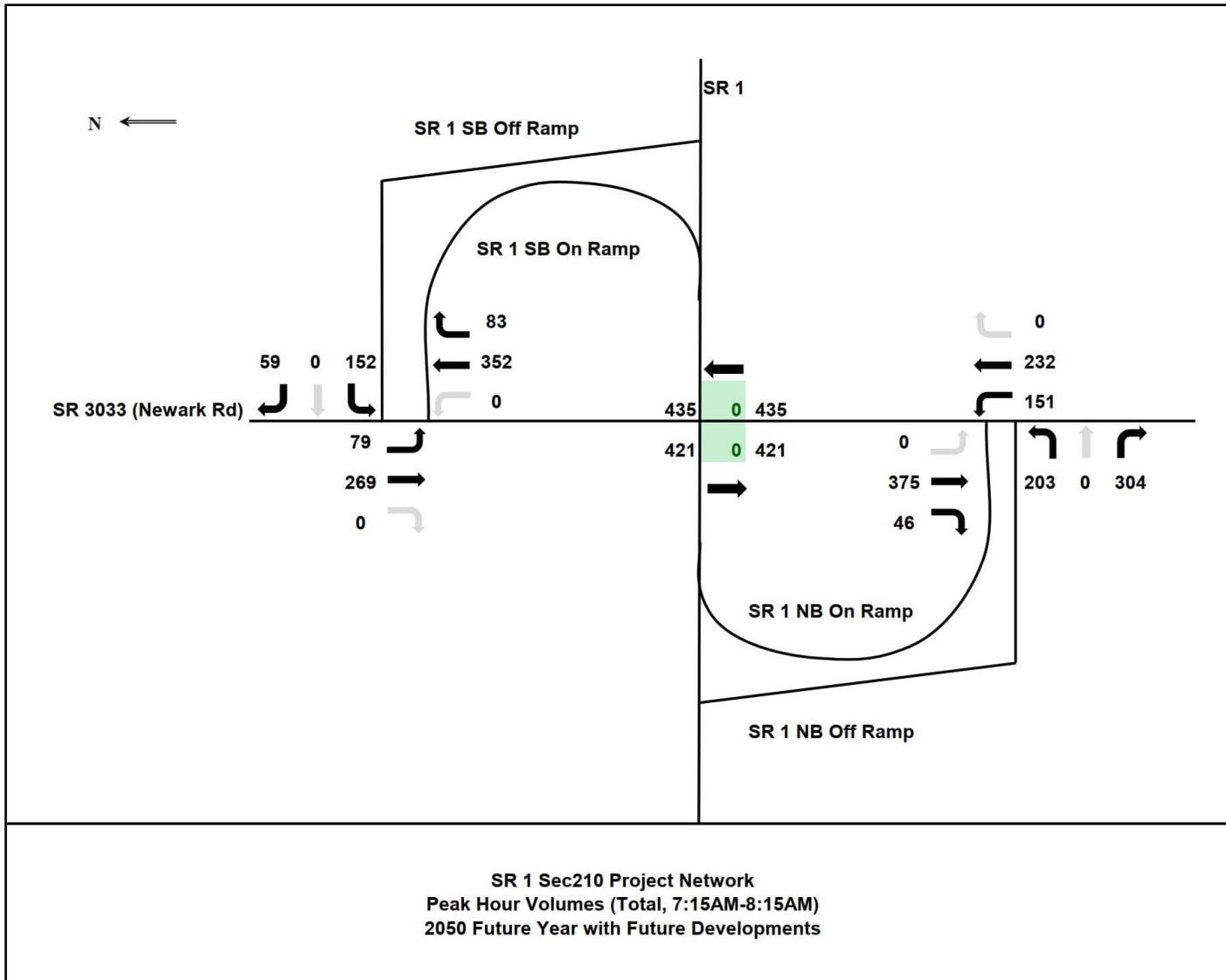


Figure 7. 2050 Design Year AM Peak Hour Volumes

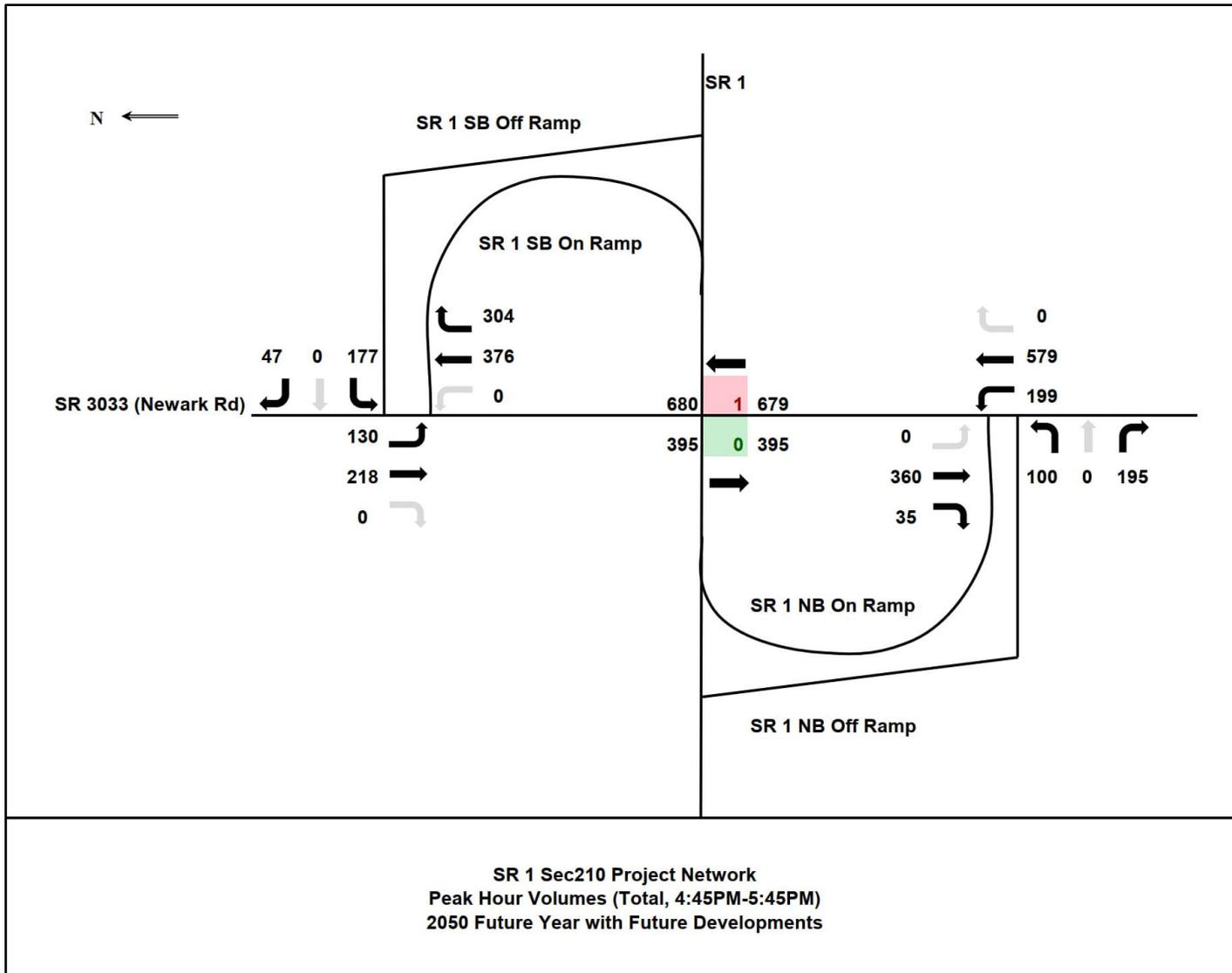


Figure 8. 2050 Design Year PM Peak Hour Volumes

4 Analysis and Findings

As a part of this study, a traffic signal warrant analysis, auxiliary turn lane warrant analysis, capacity analysis and queue analysis for the AM and PM peak hours were performed to assist in design decisions. As the existing intersections are minor leg stop-controlled, the following alternatives for the Build conditions were evaluated:

1. Alternative 1: Convert intersections to signal control
2. Alternative 2: Convert intersections to roundabout control

4.1 Traffic Signal Warrant Analysis

Signal warrant analysis was performed for the unsignalized intersections within the study area using PennDOT’s *Traffic Signal Warrant Analysis* spreadsheet. ATR data was utilized to fill in 24-hour information. The applicable warrants tested for the intersections are the 8-hour vehicular volume warrant, 4-hour vehicular volume warrant, peak hour warrant, and the ADT volume warrant. The analysis was conducted for 2022 and 2050 volumes to account for anticipated future traffic growth. **Table 2** summarizes the signal warrant analysis for the study intersections. The only intersection to satisfy the 4-hour warrant is SR 3033 & SR 0001 Northbound Ramps in 2050. No other warrants are met for either intersection in either year. The signal warrant analysis worksheets are included in **Appendix D**.

Table 2. Signal Warrant Analysis Summary

Intersection	Warrant	2022 Volumes Warrant Met?	2050 Volumes Warrant Met?
SR 3033 (Newark Rd) & SR 0001 NB Ramps	1, Eight-Hour Vehicular Volume	No	No
	2, Four-Hour Vehicular Volume	No	Yes
	3, Peak Hour	No	No
	PA-1, ADT Volume Warrant	No	No
SR 3033 (Newark Rd) & SR 0001 SB Ramps	1, Eight-Hour Vehicular Volume	No	No
	2, Four-Hour Vehicular Volume	No	No
	3, Peak Hour	No	No
	PA-1, ADT Volume Warrant	No	No

4.2 Auxiliary Turn Lane Warrant Analysis and Turn Lane Length Calculations

Auxiliary turn lane analyses were performed utilizing PennDOT’s *Turn Lane Analysis* spreadsheet. Analysis was conducted at the study intersections under existing stop-control conditions for both the AM and PM peak hours utilizing 2050 volumes. Additionally, at both intersections, turn lane warrant analysis was performed for signal control with 2050 volumes to evaluate the turn lane length needed for analysis. In all cases, the turn lane length utilized in the Synchro models was the longest of the length determined utilizing the PennDOT spreadsheet. **Table 3** summarizes the turn lane warrant analyses and lengths as determined using the PennDOT spreadsheet.

Table 3. Auxiliary Turn Lane Warrant Analysis Summary

Intersection	Turn Lane	Existing? / Length	Warranted? / Length			
			No Build (Unsignalized)		Build (Signalized)	
			2050 AM	2050 PM	2050 AM	2050 PM
SR 3033 (Newark Rd) & SR 0001 NB Ramps	NBL	N	Y/225	Y/225	Y/250	Y/250
	SBR	N	N	N	N	N
SR 3033 (Newark Rd) & SR 0001 SB Ramps	NBR	N	Y/175	Y/275	Y/175	Y/350
	SBL	N	Y/150	Y/175	Y/150	Y/225

In most cases, turn lanes are warranted at both intersections for the anticipated volumes in 2050 peak hours except the southbound right turn lane at the SR 0001 northbound ramps. The auxiliary turn lane warrant and length calculation analysis worksheets are included in **Appendix E**.

4.3 Existing and No-Build Conditions Delay Analysis

Synchro 11 software was used as the basis of the traffic operational analysis. Synchro uses the Highway Capacity Manual (HCM) methodology to determine Level of Service (LOS) based on seconds of delay per vehicle at signalized and unsignalized intersections. **Table 4** summarizes the delay thresholds and resulting LOS grade provided in the HCM. SimTraffic, a simulation modeling software, was used to analyze anticipated queueing behavior (95th percentile queue lengths) and compared to the existing queue storage lengths to determine the extent of queue spillback between intersections. Five one-hour simulation runs with a thirty-minute seeding interval were analyzed for each scenario.

Table 4. Level of Service Thresholds

Level of Service Thresholds		
Grade	Signalized	Unsignalized
A	<= 10	<= 10
B	10 to 20	10 to 15
C	20 to 35	15 to 25
D	35 to 55	25 to 35
E	55 to 80	35 to 50
F	>80	>50

The HCM analysis section of *Publication 46 Traffic Engineering Manual* was utilized for calibration inputs specific to Pennsylvania, such as base critical headways at unsignalized intersections. The

Existing Year 2022, Opening Year 2030, and Design Year 2050 volumes were input into the existing conditions network models to create a base comparison of conditions if there were no future improvements.

LOS and delay analysis for the AM and PM peak hours are summarized in **Table 5** and **Table 6**, respectively. Queue analysis for the AM and PM peak hours are summarized in **Table 7**. Synchro intersection capacity and queuing reports for existing and no-build conditions are included in **Appendix F**.

Table 5. Existing and No Build Delay and Level of Service Summary (AM)

AM Peak			2022 Existing								2030 No Build								2050 No Build							
ID	Intersection	Lane Group	Delay	LOS	Appr	Delay	LOS	Delay	LOS	Delay	LOS	Appr	Delay	LOS	Delay	LOS	Delay	LOS	Appr	Delay	LOS	Delay	LOS			
51	SR 3033 at SR 01 SB Ramps	WBLR	13.1	B	WB	13.1	B	3.1	A	21.7	C	WB	21.7	C	5.5	A	31.2	D	WB	31.2	D	7.5	A			
		NBTR	0.0	A	NB	0.0	A			0.0	A	NB	0.0	A			0.0	A	NB	0.0	A					
		SBTL	3.0	A	SB	3.0	A			2.2	A	SB	2.2	A			2.4	A	SB	2.4	A					
52	SR 3033 at SR 01 NB Ramps	EBLR	22.2	C	EB	22.2	C	10.3	B	142.3	F	EB	142.3	F	56.1	F	317.5	F	EB	317.5	F	124.0	F			
		NBTL	3.7	A	NB	3.7	A			3.9	A	NB	3.9	A			4.1	A	NB	4.1	A					
		SBTR	0.0	A	SB	0.0	A			0.0	A	SB	0.0	A			0.0	A	SB	0.0	A					

Table 6. Existing and No Build Delay and Level of Service Summary (PM)

PM Peak			2022 Existing								2030 No Build								2050 No Build							
ID	Intersection	Lane Group	Delay	LOS	Appr	Delay	LOS	Delay	LOS	Delay	LOS	Appr	Delay	LOS	Delay	LOS	Delay	LOS	Appr	Delay	LOS	Delay	LOS			
51	SR 3033 at SR 01 SB Ramps	WBLR	19.1	C	WB	19.1	C	5.3	A	41.4	E	WB	41.4	E	8.4	A	112.1	F	WB	112.1	F	21.4	C			
		NBTR	0.0	A	NB	0.0	A			0.0	A	NB	0.0	A			0.0	A	NB	0.0	A					
		SBTL	4.0	A	SB	4.0	A			4.5	A	SB	4.5	A			4.9	A	SB	4.9	A					
52	SR 3033 at SR 01 NB Ramps	EBLR	15.3	C	EB	15.3	C	4.7	A	44.0	E	EB	44.0	E	10.0	A	123.9	F	EB	123.9	F	26.3	D			
		NBTL	2.1	A	NB	2.1	A			2.5	A	NB	2.5	A			2.6	A	NB	2.6	A					
		SBTR	0.0	A	SB	0.0	A			0.0	A	SB	0.0	A			0.0	A	SB	0.0	A					

Table 7. Existing and No Build Queuing Summary

ID	Intersection	Direction	Lane Group	Storage Length (ft)	2022 Existing Queue Length (ft)		2030 No Build Queue Length (ft)		2050 No Build Queue Length (ft)	
					AM	PM	AM	PM	AM	PM
51	SR 3033 at SR 01 SB Ramps	WB	WBLR	1600	76	97	114	236	136	962
		NB	NBTR	630	3	8	0	21	3	25
		SB	SBTL	440	52	70	67	128	74	166
52	SR 3033 at SR 01 NB Ramps	EB	EBLR	1500	174	103	951	220	1858	1342
		NB	NBTL	1000	57	64	88	120	88	174
		SB	SBTR	630	5	0	0	3	8	13

4.3.1 Existing Year 2022 Results

In Existing Year 2022, the overall study intersections, approaches, and movements currently operate at acceptable LOS (LOS D or better) during the AM and PM peak hours. The queue analysis during the AM and PM peak hours of the Existing Year 2022 models shows that the 95th percentile queues do not extend beyond the current available storage at both intersections.

4.3.2 Opening Year 2030 No-Build Results

In Opening Year 2030, the overall study intersections, approaches, and movements are anticipated to operate at acceptable LOS (LOS D or better) during the AM and PM peak hours with the following exceptions:

- SR 3033 (Newark Rd) with SR 0001 Northbound Ramps
 - Eastbound SR 0001 Northbound Off-Ramp approach operates at LOS F and E during the AM and PM peak hours, respectively.
- SR 3033 (Newark Rd) with SR 0001 Southbound Ramps
 - Westbound SR 0001 Southbound Off-Ramp approach operates at LOS E during the PM peak hour.

The queue analysis during the AM and PM peak hours of the Opening Year 2030 models shows that the 95th percentile queues do not extend beyond the current available storage at both intersections.

4.3.3 Design Year 2050 No-Build Results

In Design Year 2050, the overall study intersections, approaches, and movements are anticipated to operate at acceptable LOS (LOS D or better) during the AM and PM peak hours with the following exceptions:

- SR 3033 (Newark Rd) with SR 0001 Northbound Ramps
 - Eastbound SR 0001 Northbound Off-Ramp approach operates at LOS F during AM and PM peak hours.
- SR 3033 (Newark Rd) with SR 0001 Southbound Ramps
 - Westbound SR 0001 Southbound Off-Ramp approach operates at LOS F during the PM peak hour.

The queue analysis during the AM and PM peak hours of the Design Year 2050 models show that the 95th percentile queues extend beyond the current available storage for the following lane groups:

- SR 3033 (Newark Rd) with SR 0001 Northbound Ramps
 - Eastbound SR 0001 Northbound Off-Ramp approach spills back approximately 358 feet during the AM peak hour.

Observations of the simulation indicate that the intersection SR 3033 (Newark Rd) with SR 0001 Northbound ramps impact the network in the Design Year 2050. Since the degradation of LOS at the intersection impacts the operation of the network, it is recommended that improvements be applied at the intersections in order to mitigate the network degradation in the Design Year 2050.

As volumes are increasing at both of these locations without any mitigation measures, it is expected that further degradation would occur in the future.

The first step in determining the appropriate treatments for these intersections was to mitigate the impacts that the intersections have on the network. As a result, analysis began with evaluating the following alternatives at SR 3033 (Newark Rd) with SR 0001 Northbound ramps and SR 3033 (Newark Rd) with SR 0001 Southbound ramps for the 2050 Design Year Conditions:

- Alternative 1: Signal at both intersections
- Alternative 2: Roundabout at both intersections

4.4 Alternative 1 Analysis (Signal Control)

For Alternative 1, converting the ramp intersections from minor leg stop control to signal control was considered. Full detection on each approach was assumed. Because there are no signalized intersections in close proximity to this interchange, it was assumed that the signals would operate in a fully actuated uncoordinated mode. The signal cycle length and splits were determined using Synchro's optimization methodology with each peak hour's volume conditions. Clearance intervals were calculated based on speed limit and assumed stop bar locations.

The models incorporated the warranted turn lanes and recommended storage lengths from the spreadsheets with the exception of northbound right-turn approach at the SR 3033 (Newark Rd) and SR 0001 Southbound Ramps intersection. This storage length was limited to 100 feet as to not impact the bridge between the SR 3033 (Newark Rd) termini. The southbound left turn lane at SR 3033 (Newark Rd) and SR 0001 Southbound ramps and the northbound left turn at SR 3033 (Newark Rd) and SR 0001 Northbound ramps are set to operate with protected-permissive left turn phasing according to the conflict factors calculated in accordance with PennDOT *Publication 149 Traffic Signal Design Handbook*. The northbound right turn lane at SR 3033 (Newark Rd) and SR 0001 Southbound ramps is set to operate with permitted right turn phasing. A concept sketch of the signal controlled intersections is included in **Appendix H**.

The study intersections were evaluated for the Opening Year 2030 and Design Year 2050. LOS and delay for the AM and PM peak hours are summarized in **Table 8** and **Table 9**, respectively. Queue analysis for the AM and PM peak hours are summarized in **Table 10**. Synchro intersection capacity and SimTraffic queueing reports for the Alternative 1 build conditions are included in **Appendix F**.

The study intersections and movements/approaches are anticipated to operate at acceptable LOS (LOS D or better) during the AM and PM peak hours at both intersections.

The queue analysis during the AM and PM peak hours of the Opening Year 2030 and the Design Year 2050 models show that the 95th percentile queues extend beyond the current available storage for the following lane groups:

- SR 3033 (Newark Rd) with SR 0001 Southbound Ramps – Opening Year 2030, Design Year 2050
 - Northbound SR 3033 (Newark Rd) right turn spills back approximately 9 feet in the Opening Year 2030 and 48 feet in the Design Year 2050 in the PM peak hour.
- SR 3033 (Newark Rd) with SR 0001 Northbound Ramps – Design Year 2050
 - Northbound SR 3033 (Newark Rd) left turn spills back approximately 3 feet in the Design Year 2050 in the PM peak hour.

It should be noted that the queue spill back clears after every signal cycle. Also, the Right Turn On Red (RTOR) setting is implemented in an effort to clear traffic as much as possible. Additionally, a channelized yield right-turn lane could be implemented to reduce queue impacts at the northbound right-turn approach of the SR 3033 (Newark Rd) and SR 0001 Southbound ramps intersection.

Table 8. Alternative 1 Signalized Delay and Level of Service Summary (AM)

AM Peak			2030 Signal						2050 Signal							
ID	Intersection	Lane Group	Delay	LOS	Appr	Delay	LOS	Delay	LOS	Delay	LOS	Appr	Delay	LOS	Delay	LOS
51	SR 3033 at SR 01 SB Ramps	WBLR	24.5	C	WB	25.5	C	11.6	B	25.8	C	WB	25.8	C	12.6	B
		NBT	10.8	B	NB	10.3	B			12.3	B	NB	11.7	B		
		NBR	8.5	A						9.1	A					
		SBL	6.4	A	SB	5.2	A			7.0	A	SB	5.7	A		
		SBT	4.9	A						5.3	A					
52	SR 3033 at SR 01 NB Ramps	EBLR	40.4	D	EB	40.4	D	28.9	C	48.0	D	EB	48.0	D	35.7	D
		NBL	16.1	B	NB	13.3	B			20.9	C	NB	16.4	B		
		NBT	11.4	B						13.5	B					
		SBTR	29.1	C	SB	29.1	C			38.6	D	SB	38.6	D		

Table 9. Alternative 1 Signalized Delay and Level of Service Summary (PM)

PM Peak			2030 Signal						2050 Signal							
ID	Intersection	Lane Group	Delay	LOS	Appr	Delay	LOS	Delay	LOS	Delay	LOS	Appr	Delay	LOS	Delay	LOS
51	SR 3033 at SR 01 SB Ramps	WBLR	32.5	C	WB	32.5	C	12.6	B	32.6	C	WB	32.6	C	13.3	B
		NBT	10.1	B	NB	10.1	B			10.8	B	NB	10.7	B		
		NBR	10.1	B						10.7	B					
		SBL	6.2	A	SB	4.9	A			7.2	A	SB	5.7	A		
		SBT	4.1	A						4.9	A					
52	SR 3033 at SR 01 NB Ramps	EBLR	32.3	C	EB	32.3	C	14.1	B	35.5	D	EB	35.5	D	16.5	B
		NBL	7.9	A	NB	7.4	A			9.4	A	NB	8.8	A		
		NBT	7.2	A						8.6	A					
		SBTR	14.3	B	SB	14.3	B			17.3	B	SB	17.3	B		

Table 10. Alternative 1 Signalized Queuing Summary

ID	Intersection	Direction	Lane Group	Storage Length (ft)	2030 Signal Queue Length (ft)		2050 Signal Queue Length (ft)	
					AM	PM	AM	PM
51	SR 3033 at SR 01 SB Ramps	WB	WBLR	1600	153	166	165	200
		NB	NBT	630	114	140	157	238
			NBR	100*	55	109	90	148
		SB	SBT	440	89	78	94	90
SBL	100		63	73	60	86		
52	SR 3033 at SR 01 NB Ramps	EB	EBLR	1500	327	159	397	203
		NB	NBT	1000	124	157	142	197
			NBL	125	107	113	124	128
		SB	SBTR	630	236	187	286	205

*Northbound right-turn storage bay limited to 100 feet due to proximity to bridge.

4.5 Alternative 2 Analysis (Roundabout Control)

For Alternative 2, a single lane roundabout was evaluated at each intersection. A single lane roundabout was determined to be sufficient at these intersections as the volume-to-capacity (v/c) ratios for all approaches through the 2050 Design Year is anticipated to be below 0.85. A concept sketch of the single lane roundabout is included in **Appendix H**.

LOS and delay analysis for the AM and PM peak hours are summarized in **Table 11** and **Table 12**, respectively. Queue analysis for the AM and PM peak hours are summarized in **Table 13**. Synchro intersection capacity and SimTraffic queuing reports for the Alternative 2 build conditions are included in **Appendix F**.

The study intersections and movements/approaches are anticipated to operate at acceptable LOS (LOS D or better) during the AM and PM peak hours at both intersections.

The queue analysis during the AM and PM peak hours of the Opening Year 2030 models shows that the 95th percentile queues do not extend beyond the current available storage at both intersections.

Table 11. Alternative 2 Roundabout Delay and Level of Service Summary (AM)

AM Peak			2030 Roundabout						2050 Roundabout							
ID	Intersection	Lane Group	Delay	LOS	Appr	Delay	LOS	Delay	LOS	Delay	LOS	Appr	Delay	LOS	Delay	LOS
51	SR 3033 at SR 01 SB Ramps	WBLR	6.3	A	WB	6.3	A	6.3	A	7.2	A	WB	7.2	A	7.0	A
		NBTR	6.2	A	NB	6.2	A			7.0	A	NB	7.0	A		
		SBTL	6.3	A	SB	6.3	A			6.9	A	SB	6.9	A		
52	SR 3033 at SR 01 NB Ramps	EBLR	14.1	B	EB	14.1	B	9.9	A	18.7	C	EB	18.7	C	12.4	B
		NBTL	7.3	A	NB	7.3	A			8.5	A	NB	8.5	A		
		SBTR	7.3	A	SB	7.3	A			8.2	A	SB	8.2	A		

Table 12. Alternative 2 Roundabout Delay and Level of Service Summary (PM)

PM Peak			2030 Roundabout						2050 Roundabout							
ID	Intersection	Lane Group	Delay	LOS	Appr	Delay	LOS	Delay	LOS	Delay	LOS	Appr	Delay	LOS	Delay	LOS
51	SR 3033 at SR 01 SB Ramps	WBLR	6.3	A	WB	6.3	A	8.0	A	7.2	A	WB	7.2	A	9.4	A
		NBTR	9.6	A	NB	9.6	A			11.4	B	NB	11.4	B		
		SBTL	5.9	A	SB	5.9	A			6.7	A	SB	6.7	A		
52	SR 3033 at SR 01 NB Ramps	EBLR	6.7	A	EB	6.7	A	8.5	A	7.7	A	EB	7.7	A	9.9	A
		NBTL	10.2	B	NB	10.2	B			12.0	B	NB	12.0	B		
		SBTR	6.5	A	SB	6.5	A			7.3	A	SB	7.3	A		

Table 13. Alternative 2 Roundabout Queuing Summary

ID	Intersection	Direction	Lane Group	Storage Length (ft)	2030 Roundabout Queue Length (ft)		2050 Roundabout Queue Length (ft)	
					AM	PM	AM	PM
51	SR 3033 at SR 01 SB Ramps	WB	WBLR	1600	25	25	25	25
		NB	NBTR	630	50	100	50	125
		SB	SBTL	440	25	25	50	50
52	SR 3033 at SR 01 NB Ramps	EB	EBLR	1500	100	25	150	50
		NB	NBTL	1000	50	100	50	125
		SB	SBTR	630	50	25	50	50

5 Safety Analysis

As a part of this study, a safety analysis was conducted using crash data provided by PennDOT and the *Highway Safety Manual* (HSM) Tool A and Tool B. Crash data utilized in the analyses were from the latest five years of data, covering the period from January 1, 2017 to December 31, 2021.

5.1 SR 3033 with SR 0001 Northbound Ramps

In the five-year analysis period, there was one crash at the intersection. The crash was an angle collision and the maximum severity was two possible injuries. The crash occurred in daylight in dry conditions due to an improper or careless turn. The crash occurred near the ramp terminal.

5.2 SR 3033 with SR 0001 Southbound Ramps

In the five-year analysis period, there were ten crashes at the intersection. The crashes consisted of four hit fixed object collisions, three angle collisions, two head-on collisions, and one rear-end collision. The maximum severity was possible injury for two crashes, while the remaining eight did not result in any injuries or fatalities. One crash occurred at dusk in wet conditions, one occurred when it was dark and wet, and one occurred when it was dark and dry. The other seven crashes occurred in daylight. Of the seven daylight crashes, five were in dry conditions and two were in wet conditions. One of the hit fixed object collisions occurred on the on-ramp, the other nine crashes occurred near the ramp terminal. All of the crashes had contributing driver actions, including three driving under the influence crashes, and the remainder were caused by speeding, improper or careless turns, or proceeding without clearance.

This intersection has significantly higher occurrences of crashes than neighboring intersections. To reduce crashes, AECOM recommends that foliage be cleared to improve sight distance, a potential re-grading of the embankment, and signing and pavement marking improvements.

5.3 Highway Safety Manual Analysis

As a part of this alternatives analysis process, safety considerations, specifically the potential reduction of crashes at the interchanges, were evaluated utilizing *Highway Safety Manual* (HSM) methodologies. The analysis for this study utilized the PennDOT's HSM Tool A and Tool B worksheets.

Tool A is the HSM Analysis Tool which evaluates the existing conditions of the intersections and roadway segments. The results of Tool A show the predicted crash frequency and crash types based on the existing roadway characteristics. Additionally, where actual crash data is available, the tool shows the comparison for the actual crash frequency and crash types. Where specific intersection and segment data is entered, the tool also outputs a value for the potential for safety improvements at the intersection, with higher positive numbers indicating more potential for improvement and negative numbers indicating less potential for improvement.

Tool B is the Alternatives and Safety Benefit Analysis Tool, which when potential alternatives are entered, can apply a Crash Modification Factor (CMF) specific to the Pennsylvania locality for the project and yields a crash frequency comparison. The crash frequencies between alternatives can be compared to assist in creating design decisions.

The SR 3033 ramp termini intersections were combined into one interchange worksheet, with crash frequency breakdowns by intersection. The Tool A and B results summary worksheets as well as the available crash summaries are included in **Appendix G**.

The graphs in **Figure 9** and **Figure 10** show the predicted and observed crashes at the SR 3033 Interchange, respectively. In general, this interchange has significantly higher occurrences of angle and fixed object/run-off-road crashes than anticipated given the existing conditions. Head-on and rear-end crashes are also occurring more frequently than anticipated. These higher occurrences suggest that there are potential geometric or sight distance issues as well as potential congestion and driver frustration resulting in stop-control approach drivers entering without appropriate clearance.

The graph in **Table 14** summarizes the predicted average annual crash frequencies for existing conditions as well as for each alternative for the SR 3033 Interchange. Alternative 1 Signalized is predicted to result in a higher frequency of crashes than existing conditions while Alternative 2 Roundabout is predicted to reduce the frequency of crashes.

The HSM analysis worksheet predicted a crash rate for the existing intersection conditions of 0.49 crashes per year, and the observed crash rate was 0.38 crashes per year. The resulting potential for safety improvement was 0.32, indicating there is limited room for improvement.

Project Total:
Predicted Crashes by Crash Type

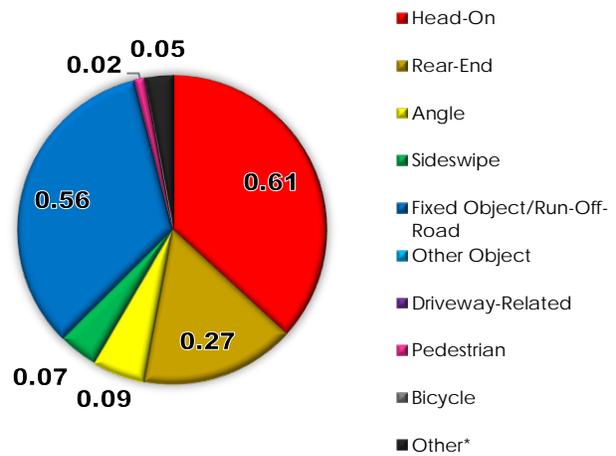


Figure 9. Existing Roadway Predicted Crashes Per Year

Project Total:
Observed Crashes by Crash Type

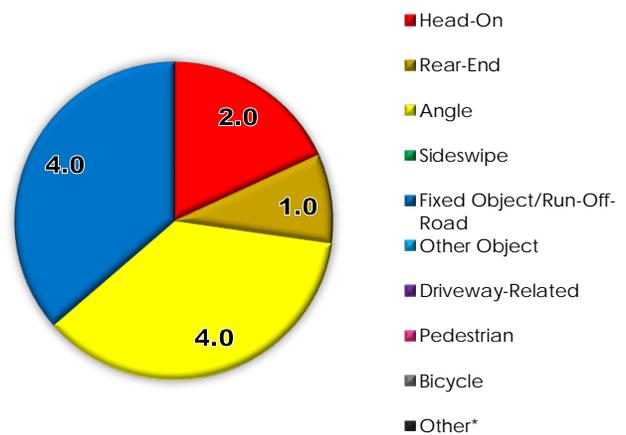
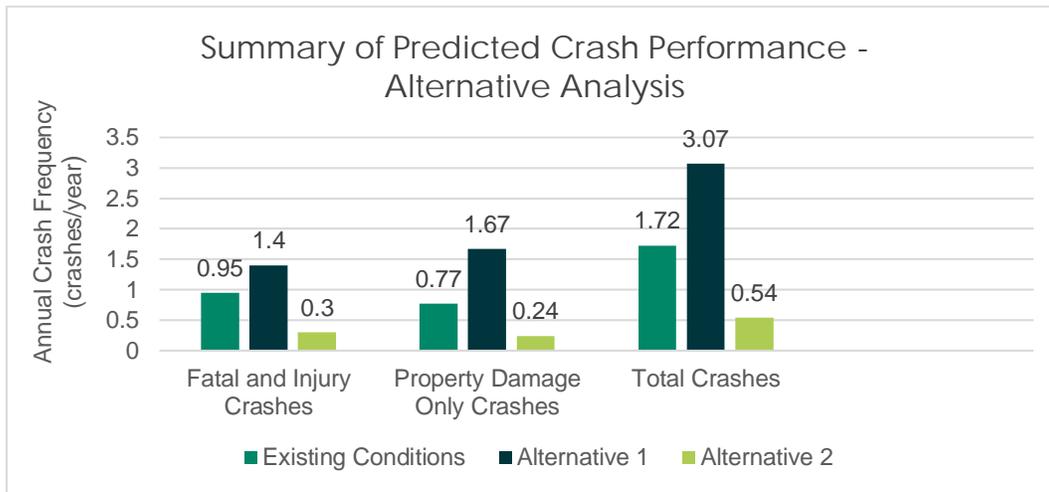


Figure 10. Existing Roadway Observed Crashes Per Year

Table 14. Predicted Crash Performance of Alternative Scenarios



6 Highway Capacity Software (HCS) Analysis

The Highway Capacity Software (HCS) was used to assess the density and Level of Service of freeway segments on SR 1 including basic freeway segments and merge and diverge segments at ramps. Currently there are no acceleration or deceleration lanes at the ramp merge and diverge segments. In accordance with current standards, acceleration and deceleration lanes were modeled in Opening Year 2030 and Design Year 2050. LOS for freeway and ramp segments are based on density in terms of passenger cars per mile per lane (pc/mi/ln) for urban and rural land use types (Table 15 and Table 16). HCS density and capacity reports are included in Appendix F.

Table 15. Freeway Facility Density LOS Thresholds

Freeway Facility Density (pc/mi/ln)		
LOS	Urban	Rural
A	<= 11	<= 6
B	>11-18	>6-14
C	>18-26	>14-22
D	>26-35	>22-29
E	>35-45	>29-39
F	>45 or v/c ratio > 1	>39 or v/c ratio over 1

Table 16. Merge/Diverge Facility Density LOS Thresholds

Merge/Diverge Facility	
LOS	Density (pc/mi/ln)
A	<= 10
B	>10-20
C	>20-28
D	>28-35
E	>35
F	Demand exceeds capacity

Table 17 shows a summary of density and LOS results under 2022, 2030 Opening Year, and 2050 Design Year traffic conditions. Density results for are reported as a single value for freeway segments and two values for merge and diverge segments to represent both freeway and ramp density (Freeway | Ramp). The freeway segments currently operate at LOS D or better. The merge and diverge segments operate at LOS D or better with failing operations at:

- SR 3033 (Newark Rd) and SR 0001 Northbound Ramps – Design Year 2050
 - SR 01 Northbound Diverge to SR 3033 in the AM peak hour operates at a high density at LOS E.

The density increases and LOS degrades as traffic increases into the future years. It is recommended that acceleration and deceleration lanes be added at a length of 520 feet for the northbound deceleration lane and 1020 feet for the northbound acceleration lane. In the southbound direction, a deceleration length of 580 feet is recommended and an acceleration length of 850 feet is recommended to meet current standards.

Table 18 shows a summary of density and LOS results under 2030 Opening Year and 2050 Design Year traffic conditions with the addition of recommended acceleration and deceleration lanes. With the added acceleration and deceleration lanes, the freeway segments as well as diverge and merge segments operate at LOS D or better.

Table 17. Highway Capacity Software (HCS) Results

Description	2022				2030				2050				
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	
NB	West of SR 3033	24.6	C	11.7	B	27.3	D	12.6	B	32.6	D	14.7	B
	Diverge to SR 3033	28.8 29.6	D	13.5 16.3	B	32.2 32.5	D	14.6 17.3	B	37.4 36.9	E	17.0 19.4	B
	Between SR 3033 ramps	19.6	C	10.2	A	20.9	C	10.9	A	24.3	C	12.7	B
	Merge from SR 3033	23.7 25.2	C	13.2 16.5	B	25.4 26.6	C	15.3 18.3	B	30.0 30.0	D	17.6 20.2	C
	East of SR 3033	20.8	C	11.8	B	22.3	C	13.4	B	25.9	C	15.5	B
SB	East of SR 3033	8.9	A	18.7	B	9.0	A	20.4	C	10.6	A	23.8	C
	Diverge to SR 3033	10.2 13.4	B	21.6 23.6	C	10.5 13.6	B	23.6 25.4	C	12.3 15.2	B	27.5 28.8	D
	Between SR 3033 ramps	8.1	A	17.1	B	7.3	A	18.6	C	8.7	A	21.7	C
	Merge from SR 3033	10.9 14.6	B	22.1 23.8	C	10.4 14.2	B	25.4 26.4	C	12.3 15.8	B	29.6 29.6	D
	West of SR 3033	9.8	A	19.6	C	9.2	A	22.4	C	10.9	A	25.8	C

Table 18. HCS Acceleration & Deceleration Lane Addition Results

Description	2030				2050				
	AM Peak		PM Peak		AM Peak		PM Peak		
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	
NB	West of SR 3033	27.3	D	12.6	B	32.6	D	14.7	B
	Diverge to SR 3033	32.2 27.8	C	14.6 12.6	B	37.4 32.3	D	17.0 14.7	B
	Between SR 3033 ramps	20.9	C	10.9	A	24.3	C	12.7	B
	Merge from SR 3033	24.8 20.2	C	15.0 11.9	B	29.2 23.6	C	17.3 13.8	B
	East of SR 3033	22.3	C	13.4	B	25.9	C	15.5	B
SB	East of SR 3033	9.0	A	20.4	C	10.6	A	23.8	C
	Diverge to SR 3033	10.5 8.4	A	23.6 20.1	C	12.3 10.0	A	27.5 23.6	C
	Between SR 3033 ramps	7.3	A	18.6	C	8.7	A	21.7	C
	Merge from SR 3033	10.1 8.8	A	24.9 21.1	C	12.0 10.4	B	29.0 24.3	C
	West of SR 3033	9.2	A	22.4	C	10.9	A	25.8	C

7 Intersection Control Evaluation (ICE)

The PennDOT *Intersection Control Evaluation* (ICE) forms were used to assess the benefits and costs associated with each intersection control type. Inputs to the PennDOT ICE forms include operational analysis results, expected safety performance, and cost estimates. The ICE form calculates and summarizes a benefit cost analysis.

7.1 Cost Estimates & Benefit Cost Analysis

The benefit cost analysis considers delay and safety impacts of the project as well as engineering, construction, and right-of-way costs. Results are summarized in **Table 19**. The detailed ICE Form and Tool are included in **Appendix I**. The total cost consists of construction, right of way, passenger delay, truck delay, and safety costs.

Table 19. Benefit Cost Analysis for Alternatives

Alternative	Net Present Value of Costs	Cost Estimate	ROW Cost Estimate	Safety B/C Ratio	Recommended for Consideration
No Build	\$2,384,505,499	Base Case	Base Case	Base Case	No
Signal	\$203,005,370	\$2,400,838	\$15,000	Benefits are less than base case and cost is greater than base case.	No
Roundabout	\$11,680,692	\$2,327,828	\$87,000	1.77	Yes

8 Summary

While not all of the alternatives improve the overall intersection LOS in each peak in the Opening Year, the improvement from a LOS F in the No-Build condition during the AM peak at the SR 0001 Northbound Ramp occur for each alternative. Queues under signal control conditions are generally higher at the intersections, with the lowest queues expected under roundabout conditions.

HSM analysis of the alternatives shows that even with existing conditions at the SR 0001 Southbound Ramps, there is a low potential for improvement but at the SR 0001 Northbound Ramps there is potential to lower the average annual crash frequency by about one crash. There is a high occurrence of rear-end and angle crashes at these intersections, indicating congestion and driver impatience leading to risky driving behaviors. Signalization of both intersections shows an expected increase in crash frequency. In the interim, short term safety improvements are recommended.

Alternative 1 Signalization would not necessitate the replacement of the bridge over SR 0001. The profile of SR 0001 will not need to be altered in order to ensure adequate bridge clearance over SR 0001. Other alternatives have the potential to impact the structure due to proximity to the bridge and likely changes in the profile required to properly design the roundabouts. For this alternative, it is expected that approximately one to two properties would be impacted with total impacts of less than 0.25 acres.

Alternative 2 Roundabouts would not necessitate the replacement of the bridge over SR 0001. For this alternative, it is expected that approximately four properties would be impacted with total impacts between 0.75 and 1 acre. It is anticipated that the most right-of-way and property impacts would occur with Alternative 2.

There would be potential impacts to adjacent wetlands with both of the Build alternatives.

Alternative 2, with roundabouts at both intersections, has the best LOS results. Additionally, the roundabout alternative provides the most significant potential for safety improvements due to its reduction of conflict points at the intersections.

It is recommended that the roundabout configuration be installed at this interchange due to its anticipated benefits for operations and safety. A matrix summarizing the results of the analysis for each alternative can be seen in **Table 20**.

Table 20. SR 3033 (Newark Rd) Interchange Alternatives Matrix

Alternate	Intersection	Traffic Control	LOS	Queuing	Operations	Geometry	ROW	Structure	Environmental	Constructability	Safety - HSM
Existing Intersection under Design Year 2050	SR 3033 (Newark Rd) & SR 0001 Southbound Ramps	Minor Leg Stop-Control	AM: LOS A PM: LOS C	AM: Queue does not extend beyond allowable lane storage PM: Queue does not extend beyond allowable lane storage	Intersection LOS and queues are anticipated to degrade in the future under existing traffic control and lane configuration.	One shared lane present in Northbound (T-R), Southbound (L-T), and Westbound (L-R) approaches	N/A	There is an existing bridge along SR 3033 (Newark Rd) between the two ramp termini. The existing structure consists of two separate single-span bridges that have standard clearances.	N/A	N/A	Past 5 Years: 4 Hit Fixed Object 3 Angle 2 Head-On 1 Rear-End Predicted: 0.49 Observed: 0.38 Potential Improve: 0.32
	SR 3033 (Newark Rd) & SR 0001 Northbound Ramps	Minor Leg Stop-Control	AM: LOS F PM: LOS D	AM: Queue exceeds allowable storage in the Eastbound approach (358 ft) PM: Queue does not extend beyond allowable lane storage		One shared lane present in Northbound (L-T), Southbound (T-R), and Eastbound (L-R) approaches	N/A				Past 5 Years: 1 Angle Predicted: 0.49 Observed: 0.38 Potential Improve: 0.32
Alternative #1: Signalized Intersection with Auxiliary Turn Lanes	SR 3033 (Newark Rd) & SR 0001 Southbound Ramps	Traffic Signal	AM: LOS B PM: LOS B	AM: Queue does not extend beyond allowable lane storage PM: Queue exceeds allowable storage in the Northbound Right Turn Lane (48 ft)	Traffic signal control allows for ramp pre-emption to be present to prevent queuing onto SR 0001 mainline. Additionally, traffic signal control could permit adaptive signal control technologies to be considered, though operations are not able to be modeled utilizing Synchro.	100' Northbound Right Turn Lane 100' Southbound Left Turn Lane	Right-of-way impacts <0.25 acres total to approximately 1 - 2 properties. No total property takes.	The existing bridge along SR 3033 (Newark Rd) is sufficient to handle the required geometry.	Minimal potential stream and wetland impacts.	Detours may be required	Increase total crash frequency: 1.35 Increase fatal and injury frequency: 0.45 Increase PDO frequency: 0.9
	SR 3033 (Newark Rd) & SR 0001 Northbound Ramps	Traffic Signal	AM: LOS D PM: LOS B	AM: Queue does not extend beyond allowable lane storage PM: Queue exceeds allowable storage in the Northbound Left Turn Lane (3 ft)		125' Northbound Left Turn Lane					
Alternative #2: 1-Lane Roundabout	SR 3033 (Newark Rd) & SR 0001 Southbound Ramps	1-Lane Roundabout	AM: LOS A PM: LOS A	AM: Queue does not extend beyond allowable lane storage PM: Queue does not extend beyond allowable lane storage	Roundabouts would be located within close proximity to each other (less than 600 feet) though there is no indication that queues would extend to either roundabout from the other.	Yield roundabout with one lane circulating for all approaches	Right-of-way impacts between 0.75 - 1.0 acres total to approximately 4 properties. No total property takes.	The existing bridge along SR 3033 (Newark Rd) is sufficient to handle the required geometry.	Moderate potential stream and wetland impacts	Detours may be required	Decrease total crash frequency: -1.18 Decrease fatal and injury frequency: -0.65 Decrease PDO frequency: -0.53
	SR 3033 (Newark Rd) & SR 0001 Northbound Ramps	1-Lane Roundabout	AM: LOS B PM: LOS A	AM: Queue does not extend beyond allowable lane storage PM: Queue does not extend beyond allowable lane storage		Yield roundabout with one lane circulating for all approaches					

AECOM
625 West Ridge Pike
Conshohocken, PA 19428
aecom.com

Appendix A

ATR Data

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	2	60	24	3	20	0	1	2	0	0	0	0	0	112
12 PM	0	87	34	11	15	0	0	2	2	0	0	0	0	151
13:00	1	79	26	3	17	0	1	1	1	0	0	0	0	129
14:00	0	76	35	2	15	1	0	4	3	0	0	0	0	136
15:00	2	135	36	5	17	2	0	2	2	0	0	0	0	201
16:00	0	175	47	4	29	2	0	4	0	0	0	0	0	261
17:00	1	168	49	3	15	1	0	2	3	0	0	0	0	242
18:00	0	98	34	1	13	1	0	0	1	0	0	0	0	148
19:00	0	71	26	0	4	0	0	0	0	0	0	0	0	101
20:00	0	47	22	0	3	0	0	0	1	0	0	0	0	73
21:00	0	36	9	0	3	0	0	0	1	0	0	0	0	49
22:00	0	13	3	0	2	0	0	0	0	0	0	0	0	18
23:00	0	8	2	0	1	0	0	0	1	0	0	0	0	12
Total	6	1053	347	32	154	7	2	17	15	0	0	0	0	1633
Percent	0.4%	64.5%	21.2%	2.0%	9.4%	0.4%	0.1%	1.0%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	11:00	11:00		11:00	11:00						11:00
Vol.	2	60	24	3	20		1	2						112
PM Peak	15:00	16:00	17:00	12:00	16:00	15:00	13:00	14:00	14:00					16:00
Vol.	2	175	49	11	29	2	1	4	3					261

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/18/22	0	11	3	0	0	0	0	0	1	0	0	0	0	15
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
04:00	0	14	6	0	0	0	1	0	1	0	0	0	0	22
05:00	0	28	10	1	3	1	1	0	2	0	0	0	0	46
06:00	0	43	13	1	4	0	0	0	1	0	0	0	0	62
07:00	1	71	22	3	13	0	1	2	0	0	0	0	0	113
08:00	0	70	21	4	19	3	1	1	1	0	0	0	0	120
09:00	0	65	28	1	11	4	1	2	2	0	0	0	0	114
10:00	0	60	34	5	16	3	0	2	4	0	0	0	0	124
11:00	1	58	19	2	19	0	1	5	1	0	0	0	0	106
12 PM	0	84	21	4	14	2	0	3	3	0	0	0	0	131
13:00	0	79	31	7	10	1	0	6	1	0	0	0	0	135
14:00	0	99	40	4	8	0	0	4	3	0	0	0	0	158
15:00	3	156	49	3	20	2	0	3	3	0	0	0	0	239
16:00	1	167	51	4	25	0	0	2	1	0	0	0	0	251
17:00	1	165	43	2	19	0	0	3	0	0	0	0	0	233
18:00	2	115	33	1	9	0	0	1	1	0	0	0	0	162
19:00	0	56	22	1	8	0	0	2	1	0	0	0	0	90
20:00	0	59	15	1	4	0	0	1	3	0	0	0	0	83
21:00	0	39	5	0	1	1	0	0	0	0	0	0	0	46
22:00	0	16	3	0	3	0	0	0	0	0	0	0	0	22
23:00	0	16	3	0	1	0	0	0	0	0	0	0	0	20
Total	9	1481	474	44	207	17	6	37	29	0	0	0	0	2304
Percent	0.4%	64.3%	20.6%	1.9%	9.0%	0.7%	0.3%	1.6%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	10:00	10:00	08:00	09:00	04:00	11:00	10:00					10:00
Vol.	1	71	34	5	19	4	1	5	4					124
PM Peak	15:00	16:00	16:00	13:00	16:00	12:00		13:00	12:00					16:00
Vol.	3	167	51	7	25	2		6	3					251

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/19/22	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	0	1	0	0	0	0	0	0	0	0	0	3
03:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
04:00	0	5	6	1	2	0	0	0	2	0	0	0	0	16
05:00	0	19	10	1	3	0	0	0	0	0	0	0	0	33
06:00	0	36	12	0	8	1	1	1	1	0	0	0	0	60
07:00	0	72	17	4	11	1	0	0	3	0	0	0	0	108
08:00	2	58	31	3	10	1	0	2	1	0	0	0	0	108
09:00	0	59	18	4	18	0	0	3	2	0	0	0	0	104
10:00	0	54	24	4	11	2	1	3	0	0	0	0	1	100
11:00	0	55	32	3	11	2	0	4	3	0	0	0	0	110
12 PM	0	90	38	7	9	1	1	7	2	0	0	0	0	155
13:00	0	67	33	3	14	1	1	4	2	0	0	0	0	125
14:00	0	87	37	1	21	2	0	3	1	0	0	0	0	152
15:00	0	138	52	3	17	0	0	4	2	0	0	0	0	216
16:00	1	174	40	1	17	0	0	1	1	0	0	0	0	235
17:00	0	163	40	4	15	0	0	1	3	0	0	0	0	226
18:00	0	111	34	0	7	0	0	3	1	0	0	0	0	156
19:00	0	73	26	2	5	0	0	2	1	0	0	0	0	109
20:00	0	84	36	0	7	1	0	1	0	0	0	0	0	129
21:00	0	52	18	0	3	0	0	0	2	0	0	0	0	75
22:00	0	15	7	0	2	0	0	0	1	0	0	0	0	25
23:00	0	13	2	0	2	0	0	0	0	0	0	0	0	17
Total	3	1438	515	42	193	12	4	39	28	0	0	0	1	2275
Percent	0.1%	63.2%	22.6%	1.8%	8.5%	0.5%	0.2%	1.7%	1.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	11:00	07:00	09:00	10:00	06:00	11:00	07:00				10:00	11:00
Vol.	2	72	32	4	18	2	1	4	3				1	110
PM Peak	16:00	16:00	15:00	12:00	14:00	14:00	12:00	12:00	17:00					16:00
Vol.	1	174	52	7	21	2	1	7	3					235

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/20/22	0	4	2	0	0	0	0	0	0	0	0	0	0	6
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	1	0	0	0	1	0	0	0	0	3
03:00	0	4	2	1	1	0	0	0	1	0	0	0	0	9
04:00	0	14	2	0	4	0	0	0	0	0	0	0	0	20
05:00	0	25	10	4	6	1	0	0	1	0	0	0	0	47
06:00	0	37	11	1	3	1	0	0	2	0	0	0	0	55
07:00	1	62	22	3	12	1	0	3	3	0	0	0	0	107
08:00	1	59	34	5	16	1	0	6	3	0	0	0	0	125
09:00	0	82	31	9	16	3	0	5	2	0	0	0	0	148
10:00	0	69	27	2	17	1	0	3	4	0	0	0	0	123
11:00	0	57	29	2	13	3	0	8	3	0	0	0	0	115
12 PM	1	91	27	7	20	2	0	5	2	0	0	0	0	155
13:00	1	111	50	2	18	2	1	4	3	0	0	0	0	192
14:00	0	114	49	3	21	2	0	4	1	0	0	0	0	194
15:00	1	145	57	4	22	1	1	4	1	0	0	0	0	236
16:00	1	158	39	2	20	0	0	3	2	0	0	0	0	225
17:00	0	167	22	0	17	1	0	1	0	0	0	0	0	208
18:00	0	77	24	1	9	0	0	0	1	0	0	0	0	112
19:00	0	51	24	0	11	0	0	0	1	0	0	0	0	87
20:00	0	50	18	0	2	0	0	0	0	0	0	0	0	70
21:00	0	53	5	1	2	1	0	0	0	0	0	0	0	62
22:00	0	15	4	0	2	0	0	1	0	0	0	0	0	22
23:00	0	15	2	0	1	0	0	0	0	0	0	0	0	18
Total	6	1462	491	47	234	20	2	47	31	0	0	0	0	2340
Percent	0.3%	62.5%	21.0%	2.0%	10.0%	0.9%	0.1%	2.0%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	09:00	08:00	09:00	10:00	09:00		11:00	10:00					09:00
Vol.	1	82	34	9	17	3		8	4					148
PM Peak	12:00	17:00	15:00	12:00	15:00	12:00	13:00	12:00	13:00					15:00
Vol.	1	167	57	7	22	2	1	5	3					236

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/21/22	0	9	2	0	1	0	0	0	0	0	0	0	0	12
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
03:00	0	4	1	0	3	0	1	0	0	0	0	0	0	9
04:00	0	11	4	1	1	0	1	0	0	0	0	0	0	18
05:00	0	13	4	0	8	1	2	0	0	0	0	0	0	28
06:00	0	21	5	2	1	1	1	1	0	0	0	0	0	32
07:00	0	28	12	5	2	0	2	1	0	0	0	0	0	50
08:00	0	53	26	1	8	4	0	2	0	0	0	0	0	94
09:00	0	71	20	3	10	1	1	1	0	0	0	0	0	107
10:00	2	73	35	3	13	3	1	0	1	0	0	0	0	131
11:00	2	85	25	4	8	0	1	2	1	0	0	0	0	128
12 PM	2	109	28	1	17	1	3	0	1	0	0	0	0	162
13:00	1	88	30	5	3	1	0	0	1	0	0	0	0	129
14:00	2	106	34	2	16	0	0	4	0	0	0	0	0	164
15:00	1	119	36	2	11	0	0	2	0	0	0	0	0	171
16:00	0	114	39	0	17	0	0	1	1	0	0	0	0	172
17:00	1	101	27	2	10	0	0	0	0	0	0	0	0	141
18:00	0	72	17	0	4	0	0	1	1	0	0	0	0	95
19:00	1	50	20	0	3	0	0	0	2	0	0	0	0	76
20:00	1	54	10	0	3	0	0	1	1	0	0	0	0	70
21:00	0	30	12	0	3	0	0	0	1	0	0	0	0	46
22:00	0	14	12	0	4	0	0	0	0	0	0	0	0	30
23:00	0	16	5	0	1	0	0	1	0	0	0	0	0	23
Total	13	1250	406	31	147	12	13	17	10	0	0	0	0	1899
Percent	0.7%	65.8%	21.4%	1.6%	7.7%	0.6%	0.7%	0.9%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	10:00	07:00	10:00	08:00	05:00	08:00	10:00					10:00
Vol.	2	85	35	5	13	4	2	2	1					131
PM Peak	12:00	15:00	16:00	13:00	12:00	12:00	12:00	14:00	19:00					16:00
Vol.	2	119	39	5	17	1	3	4	2					172

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/22/22	0	15	1	0	0	0	0	0	0	0	0	0	0	16
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	5	0	0	2	0	0	0	0	0	0	0	0	7
04:00	0	6	1	0	1	0	1	0	0	0	0	0	0	9
05:00	0	13	2	1	1	0	0	1	0	0	0	0	0	18
06:00	0	8	2	1	3	1	0	1	0	0	0	0	0	16
07:00	0	15	11	0	5	0	0	0	1	0	0	0	0	32
08:00	0	40	17	1	14	0	1	2	0	0	0	0	0	75
09:00	0	47	11	1	7	0	0	1	1	0	0	0	0	68
10:00	0	56	21	1	11	0	0	2	0	0	0	0	0	91
11:00	1	78	21	1	15	0	0	3	0	0	0	0	0	119
12 PM	0	87	30	0	10	0	0	3	0	0	0	0	0	130
13:00	0	109	28	3	12	0	0	2	1	0	0	0	0	155
14:00	0	108	25	0	13	0	0	1	1	0	0	0	0	148
15:00	0	103	25	1	10	0	0	0	2	0	0	0	0	141
16:00	0	87	31	0	8	1	0	0	0	0	0	0	0	127
17:00	0	93	18	2	11	0	0	1	0	0	0	0	0	125
18:00	0	40	24	0	6	0	0	0	1	0	0	0	0	71
19:00	0	37	11	0	3	1	0	0	1	0	0	0	0	53
20:00	0	40	9	1	3	0	0	0	2	0	0	0	0	55
21:00	0	27	5	0	2	0	0	0	0	0	0	0	0	34
22:00	0	8	3	0	1	0	0	0	0	0	0	0	0	12
23:00	0	11	1	0	2	0	0	0	0	0	0	0	0	14
Total	1	1037	298	13	140	3	2	17	10	0	0	0	0	1521
Percent	0.1%	68.2%	19.6%	0.9%	9.2%	0.2%	0.1%	1.1%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	05:00	11:00	06:00	04:00	11:00	07:00					11:00
Vol.	1	78	21	1	15	1	1	3	1					119
PM Peak		13:00	16:00	13:00	14:00	16:00		12:00	15:00					13:00
Vol.		109	31	3	13	1		3	2					155

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/23/22	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	0	0	0	0	0	1	0	0	0	0	0	2
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	2	1	0	0	0	0	0	1	0	0	0	0	4
04:00	0	13	4	0	0	0	0	0	1	0	0	0	0	18
05:00	0	20	6	1	5	0	0	1	1	0	0	0	0	34
06:00	0	32	18	1	6	0	1	1	1	0	0	0	0	60
07:00	0	58	28	0	15	2	0	1	4	0	0	0	0	108
08:00	0	68	23	4	18	2	0	5	1	0	0	0	0	121
09:00	0	55	18	5	12	2	0	2	2	0	0	0	0	96
10:00	0	65	26	7	9	1	0	3	0	0	0	0	0	111
11:00	0	63	34	3	23	3	1	2	0	0	0	0	0	129
12 PM	1	76	30	3	14	3	0	3	2	0	0	0	0	132
13:00	0	52	33	5	12	1	0	6	2	0	0	0	0	111
14:00	0	87	36	4	20	3	0	1	4	0	0	0	0	155
15:00	0	145	39	3	30	0	0	2	1	0	0	0	0	220
16:00	0	174	45	3	23	0	0	4	2	0	0	0	0	251
17:00	1	155	42	1	28	0	0	0	0	1	0	0	0	228
18:00	0	102	39	1	13	0	0	3	3	0	0	0	0	161
19:00	0	69	22	2	5	0	0	2	2	0	0	0	0	102
20:00	0	44	9	1	1	0	0	0	1	0	0	0	0	56
21:00	0	33	10	0	7	0	0	0	0	0	0	0	0	50
22:00	0	18	5	0	1	0	0	0	0	0	0	0	0	24
23:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
Total	2	1348	470	44	242	17	2	37	28	1	0	0	0	2191
Percent	0.1%	61.5%	21.5%	2.0%	11.0%	0.8%	0.1%	1.7%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak		08:00	11:00	10:00	11:00	11:00	06:00	08:00	07:00					11:00
Vol.		68	34	7	23	3	1	5	4					129
PM Peak	12:00	16:00	16:00	13:00	15:00	12:00		13:00	14:00	17:00				16:00
Vol.	1	174	45	5	30	3		6	4	1				251

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/24/22	0	4	2	0	0	0	0	0	0	0	0	0	0	6
01:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
02:00	0	3	3	1	0	0	0	0	0	0	0	0	0	7
03:00	0	1	2	1	0	0	0	0	1	0	0	0	0	5
04:00	0	16	5	1	1	1	0	0	2	0	0	0	0	26
05:00	1	25	10	3	5	0	0	0	1	0	0	0	0	45
06:00	0	47	10	0	4	0	1	1	0	0	0	0	0	63
07:00	0	74	26	4	11	1	2	2	1	0	0	0	1	122
08:00	0	56	26	6	9	3	1	4	0	0	0	0	0	105
09:00	0	55	21	2	17	1	1	3	1	0	0	0	0	101
10:00	0	54	17	2	10	3	1	2	0	0	0	0	0	89
11:00	0	57	25	1	15	3	1	1	2	0	0	0	0	105
12 PM	1	75	20	3	11	2	1	2	2	0	0	0	0	117
13:00	1	75	35	3	21	3	0	1	0	0	0	0	0	139
14:00	0	66	38	4	12	3	0	3	2	0	0	0	0	128
15:00	0	125	56	3	22	0	1	1	1	0	0	0	0	209
16:00	0	164	42	2	17	0	0	3	2	0	0	0	0	230
17:00	1	157	46	1	24	1	0	7	1	0	0	0	0	238
18:00	0	93	50	0	1	0	0	0	3	0	0	0	0	147
19:00	0	71	20	2	6	0	0	2	0	0	0	0	0	101
20:00	0	54	12	1	3	0	0	1	2	0	0	0	0	73
21:00	0	36	18	0	6	0	0	0	0	0	0	0	0	60
22:00	0	22	4	0	1	0	0	0	0	0	0	0	0	27
23:00	0	13	5	0	1	0	0	1	0	0	0	0	0	20
Total	4	1344	493	40	198	21	9	34	21	0	0	0	1	2165
Percent	0.2%	62.1%	22.8%	1.8%	9.1%	1.0%	0.4%	1.6%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	08:00	09:00	08:00	07:00	08:00	04:00				07:00	07:00
Vol.	1	74	26	6	17	3	2	4	2				1	122
PM Peak	12:00	16:00	15:00	14:00	17:00	13:00	12:00	17:00	18:00					17:00
Vol.	1	164	56	4	24	3	1	7	3					238

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/25/22	0	6	1	0	1	0	0	0	0	0	0	0	0	8
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	4	3	1	0	0	0	0	0	0	0	0	0	8
04:00	0	8	4	1	1	0	0	0	0	0	0	0	0	14
05:00	0	25	12	2	3	1	2	1	1	0	0	0	0	47
06:00	0	43	9	4	9	1	1	0	0	0	0	0	0	67
07:00	0	78	32	1	14	1	2	3	3	0	0	0	0	134
08:00	0	62	28	4	13	1	0	0	1	0	0	0	0	109
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	231	91	13	41	4	5	4	5	0	0	0	0	394
Percent	0.0%	58.6%	23.1%	3.3%	10.4%	1.0%	1.3%	1.0%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	06:00	07:00	05:00	05:00	07:00	07:00					07:00
Vol.		78	32	4	14	1	2	3	3					134
PM Peak														
Vol.														
Grand Total	44	10644	3585	306	1556	113	45	249	177	1	0	0	2	16722
Percent	0.3%	63.7%	21.4%	1.8%	9.3%	0.7%	0.3%	1.5%	1.1%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	2	60	24	3	20	0	1	2	0	0	0	0	0	112
12 PM	0	87	34	11	15	0	0	2	2	0	0	0	0	151
13:00	1	79	26	3	17	0	1	1	1	0	0	0	0	129
14:00	0	76	35	2	15	1	0	4	3	0	0	0	0	136
15:00	2	135	36	5	17	2	0	2	2	0	0	0	0	201
16:00	0	175	47	4	29	2	0	4	0	0	0	0	0	261
17:00	1	168	49	3	15	1	0	2	3	0	0	0	0	242
18:00	0	98	34	1	13	1	0	0	1	0	0	0	0	148
19:00	0	71	26	0	4	0	0	0	0	0	0	0	0	101
20:00	0	47	22	0	3	0	0	0	1	0	0	0	0	73
21:00	0	36	9	0	3	0	0	0	1	0	0	0	0	49
22:00	0	13	3	0	2	0	0	0	0	0	0	0	0	18
23:00	0	8	2	0	1	0	0	0	1	0	0	0	0	12
Total	6	1053	347	32	154	7	2	17	15	0	0	0	0	1633
Percent	0.4%	64.5%	21.2%	2.0%	9.4%	0.4%	0.1%	1.0%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	11:00	11:00		11:00	11:00						11:00
Vol.	2	60	24	3	20		1	2						112
PM Peak	15:00	16:00	17:00	12:00	16:00	15:00	13:00	14:00	14:00					16:00
Vol.	2	175	49	11	29	2	1	4	3					261

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/18/22	0	11	3	0	0	0	0	0	1	0	0	0	0	15
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
04:00	0	14	6	0	0	0	1	0	1	0	0	0	0	22
05:00	0	28	10	1	3	1	1	0	2	0	0	0	0	46
06:00	0	43	13	1	4	0	0	0	1	0	0	0	0	62
07:00	1	71	22	3	13	0	1	2	0	0	0	0	0	113
08:00	0	70	21	4	19	3	1	1	1	0	0	0	0	120
09:00	0	65	28	1	11	4	1	2	2	0	0	0	0	114
10:00	0	60	34	5	16	3	0	2	4	0	0	0	0	124
11:00	1	58	19	2	19	0	1	5	1	0	0	0	0	106
12 PM	0	84	21	4	14	2	0	3	3	0	0	0	0	131
13:00	0	79	31	7	10	1	0	6	1	0	0	0	0	135
14:00	0	99	40	4	8	0	0	4	3	0	0	0	0	158
15:00	3	156	49	3	20	2	0	3	3	0	0	0	0	239
16:00	1	167	51	4	25	0	0	2	1	0	0	0	0	251
17:00	1	165	43	2	19	0	0	3	0	0	0	0	0	233
18:00	2	115	33	1	9	0	0	1	1	0	0	0	0	162
19:00	0	56	22	1	8	0	0	2	1	0	0	0	0	90
20:00	0	59	15	1	4	0	0	1	3	0	0	0	0	83
21:00	0	39	5	0	1	1	0	0	0	0	0	0	0	46
22:00	0	16	3	0	3	0	0	0	0	0	0	0	0	22
23:00	0	16	3	0	1	0	0	0	0	0	0	0	0	20
Total	9	1481	474	44	207	17	6	37	29	0	0	0	0	2304
Percent	0.4%	64.3%	20.6%	1.9%	9.0%	0.7%	0.3%	1.6%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	10:00	10:00	08:00	09:00	04:00	11:00	10:00					10:00
Vol.	1	71	34	5	19	4	1	5	4					124
PM Peak	15:00	16:00	16:00	13:00	16:00	12:00		13:00	12:00					16:00
Vol.	3	167	51	7	25	2		6	3					251

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/19/22	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	0	1	0	0	0	0	0	0	0	0	0	3
03:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
04:00	0	5	6	1	2	0	0	0	2	0	0	0	0	16
05:00	0	19	10	1	3	0	0	0	0	0	0	0	0	33
06:00	0	36	12	0	8	1	1	1	1	0	0	0	0	60
07:00	0	72	17	4	11	1	0	0	3	0	0	0	0	108
08:00	2	58	31	3	10	1	0	2	1	0	0	0	0	108
09:00	0	59	18	4	18	0	0	3	2	0	0	0	0	104
10:00	0	54	24	4	11	2	1	3	0	0	0	0	1	100
11:00	0	55	32	3	11	2	0	4	3	0	0	0	0	110
12 PM	0	90	38	7	9	1	1	7	2	0	0	0	0	155
13:00	0	67	33	3	14	1	1	4	2	0	0	0	0	125
14:00	0	87	37	1	21	2	0	3	1	0	0	0	0	152
15:00	0	138	52	3	17	0	0	4	2	0	0	0	0	216
16:00	1	174	40	1	17	0	0	1	1	0	0	0	0	235
17:00	0	163	40	4	15	0	0	1	3	0	0	0	0	226
18:00	0	111	34	0	7	0	0	3	1	0	0	0	0	156
19:00	0	73	26	2	5	0	0	2	1	0	0	0	0	109
20:00	0	84	36	0	7	1	0	1	0	0	0	0	0	129
21:00	0	52	18	0	3	0	0	0	2	0	0	0	0	75
22:00	0	15	7	0	2	0	0	0	1	0	0	0	0	25
23:00	0	13	2	0	2	0	0	0	0	0	0	0	0	17
Total	3	1438	515	42	193	12	4	39	28	0	0	0	1	2275
Percent	0.1%	63.2%	22.6%	1.8%	8.5%	0.5%	0.2%	1.7%	1.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	11:00	07:00	09:00	10:00	06:00	11:00	07:00				10:00	11:00
Vol.	2	72	32	4	18	2	1	4	3				1	110
PM Peak	16:00	16:00	15:00	12:00	14:00	14:00	12:00	12:00	17:00					16:00
Vol.	1	174	52	7	21	2	1	7	3					235

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/20/22	0	4	2	0	0	0	0	0	0	0	0	0	0	6
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	1	0	0	0	1	0	0	0	0	3
03:00	0	4	2	1	1	0	0	0	1	0	0	0	0	9
04:00	0	14	2	0	4	0	0	0	0	0	0	0	0	20
05:00	0	25	10	4	6	1	0	0	1	0	0	0	0	47
06:00	0	37	11	1	3	1	0	0	2	0	0	0	0	55
07:00	1	62	22	3	12	1	0	3	3	0	0	0	0	107
08:00	1	59	34	5	16	1	0	6	3	0	0	0	0	125
09:00	0	82	31	9	16	3	0	5	2	0	0	0	0	148
10:00	0	69	27	2	17	1	0	3	4	0	0	0	0	123
11:00	0	57	29	2	13	3	0	8	3	0	0	0	0	115
12 PM	1	91	27	7	20	2	0	5	2	0	0	0	0	155
13:00	1	111	50	2	18	2	1	4	3	0	0	0	0	192
14:00	0	114	49	3	21	2	0	4	1	0	0	0	0	194
15:00	1	145	57	4	22	1	1	4	1	0	0	0	0	236
16:00	1	158	39	2	20	0	0	3	2	0	0	0	0	225
17:00	0	167	22	0	17	1	0	1	0	0	0	0	0	208
18:00	0	77	24	1	9	0	0	0	1	0	0	0	0	112
19:00	0	51	24	0	11	0	0	0	1	0	0	0	0	87
20:00	0	50	18	0	2	0	0	0	0	0	0	0	0	70
21:00	0	53	5	1	2	1	0	0	0	0	0	0	0	62
22:00	0	15	4	0	2	0	0	1	0	0	0	0	0	22
23:00	0	15	2	0	1	0	0	0	0	0	0	0	0	18
Total	6	1462	491	47	234	20	2	47	31	0	0	0	0	2340
Percent	0.3%	62.5%	21.0%	2.0%	10.0%	0.9%	0.1%	2.0%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	09:00	08:00	09:00	10:00	09:00		11:00	10:00					09:00
Vol.	1	82	34	9	17	3		8	4					148
PM Peak	12:00	17:00	15:00	12:00	15:00	12:00	13:00	12:00	13:00					15:00
Vol.	1	167	57	7	22	2	1	5	3					236

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/21/22	0	9	2	0	1	0	0	0	0	0	0	0	0	12
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
03:00	0	4	1	0	3	0	1	0	0	0	0	0	0	9
04:00	0	11	4	1	1	0	1	0	0	0	0	0	0	18
05:00	0	13	4	0	8	1	2	0	0	0	0	0	0	28
06:00	0	21	5	2	1	1	1	1	0	0	0	0	0	32
07:00	0	28	12	5	2	0	2	1	0	0	0	0	0	50
08:00	0	53	26	1	8	4	0	2	0	0	0	0	0	94
09:00	0	71	20	3	10	1	1	1	0	0	0	0	0	107
10:00	2	73	35	3	13	3	1	0	1	0	0	0	0	131
11:00	2	85	25	4	8	0	1	2	1	0	0	0	0	128
12 PM	2	109	28	1	17	1	3	0	1	0	0	0	0	162
13:00	1	88	30	5	3	1	0	0	1	0	0	0	0	129
14:00	2	106	34	2	16	0	0	4	0	0	0	0	0	164
15:00	1	119	36	2	11	0	0	2	0	0	0	0	0	171
16:00	0	114	39	0	17	0	0	1	1	0	0	0	0	172
17:00	1	101	27	2	10	0	0	0	0	0	0	0	0	141
18:00	0	72	17	0	4	0	0	1	1	0	0	0	0	95
19:00	1	50	20	0	3	0	0	0	2	0	0	0	0	76
20:00	1	54	10	0	3	0	0	1	1	0	0	0	0	70
21:00	0	30	12	0	3	0	0	0	1	0	0	0	0	46
22:00	0	14	12	0	4	0	0	0	0	0	0	0	0	30
23:00	0	16	5	0	1	0	0	1	0	0	0	0	0	23
Total	13	1250	406	31	147	12	13	17	10	0	0	0	0	1899
Percent	0.7%	65.8%	21.4%	1.6%	7.7%	0.6%	0.7%	0.9%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	10:00	07:00	10:00	08:00	05:00	08:00	10:00					10:00
Vol.	2	85	35	5	13	4	2	2	1					131
PM Peak	12:00	15:00	16:00	13:00	12:00	12:00	12:00	14:00	19:00					16:00
Vol.	2	119	39	5	17	1	3	4	2					172

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/22/22	0	15	1	0	0	0	0	0	0	0	0	0	0	16
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	5	0	0	2	0	0	0	0	0	0	0	0	7
04:00	0	6	1	0	1	0	1	0	0	0	0	0	0	9
05:00	0	13	2	1	1	0	0	1	0	0	0	0	0	18
06:00	0	8	2	1	3	1	0	1	0	0	0	0	0	16
07:00	0	15	11	0	5	0	0	0	1	0	0	0	0	32
08:00	0	40	17	1	14	0	1	2	0	0	0	0	0	75
09:00	0	47	11	1	7	0	0	1	1	0	0	0	0	68
10:00	0	56	21	1	11	0	0	2	0	0	0	0	0	91
11:00	1	78	21	1	15	0	0	3	0	0	0	0	0	119
12 PM	0	87	30	0	10	0	0	3	0	0	0	0	0	130
13:00	0	109	28	3	12	0	0	2	1	0	0	0	0	155
14:00	0	108	25	0	13	0	0	1	1	0	0	0	0	148
15:00	0	103	25	1	10	0	0	0	2	0	0	0	0	141
16:00	0	87	31	0	8	1	0	0	0	0	0	0	0	127
17:00	0	93	18	2	11	0	0	1	0	0	0	0	0	125
18:00	0	40	24	0	6	0	0	0	1	0	0	0	0	71
19:00	0	37	11	0	3	1	0	0	1	0	0	0	0	53
20:00	0	40	9	1	3	0	0	0	2	0	0	0	0	55
21:00	0	27	5	0	2	0	0	0	0	0	0	0	0	34
22:00	0	8	3	0	1	0	0	0	0	0	0	0	0	12
23:00	0	11	1	0	2	0	0	0	0	0	0	0	0	14
Total	1	1037	298	13	140	3	2	17	10	0	0	0	0	1521
Percent	0.1%	68.2%	19.6%	0.9%	9.2%	0.2%	0.1%	1.1%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	05:00	11:00	06:00	04:00	11:00	07:00					11:00
Vol.	1	78	21	1	15	1	1	3	1					119
PM Peak		13:00	16:00	13:00	14:00	16:00		12:00	15:00					13:00
Vol.		109	31	3	13	1		3	2					155

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/23/22	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	0	0	0	0	0	1	0	0	0	0	0	2
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	2	1	0	0	0	0	0	1	0	0	0	0	4
04:00	0	13	4	0	0	0	0	0	1	0	0	0	0	18
05:00	0	20	6	1	5	0	0	1	1	0	0	0	0	34
06:00	0	32	18	1	6	0	1	1	1	0	0	0	0	60
07:00	0	58	28	0	15	2	0	1	4	0	0	0	0	108
08:00	0	68	23	4	18	2	0	5	1	0	0	0	0	121
09:00	0	55	18	5	12	2	0	2	2	0	0	0	0	96
10:00	0	65	26	7	9	1	0	3	0	0	0	0	0	111
11:00	0	63	34	3	23	3	1	2	0	0	0	0	0	129
12 PM	1	76	30	3	14	3	0	3	2	0	0	0	0	132
13:00	0	52	33	5	12	1	0	6	2	0	0	0	0	111
14:00	0	87	36	4	20	3	0	1	4	0	0	0	0	155
15:00	0	145	39	3	30	0	0	2	1	0	0	0	0	220
16:00	0	174	45	3	23	0	0	4	2	0	0	0	0	251
17:00	1	155	42	1	28	0	0	0	0	1	0	0	0	228
18:00	0	102	39	1	13	0	0	3	3	0	0	0	0	161
19:00	0	69	22	2	5	0	0	2	2	0	0	0	0	102
20:00	0	44	9	1	1	0	0	0	1	0	0	0	0	56
21:00	0	33	10	0	7	0	0	0	0	0	0	0	0	50
22:00	0	18	5	0	1	0	0	0	0	0	0	0	0	24
23:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
Total	2	1348	470	44	242	17	2	37	28	1	0	0	0	2191
Percent	0.1%	61.5%	21.5%	2.0%	11.0%	0.8%	0.1%	1.7%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak		08:00	11:00	10:00	11:00	11:00	06:00	08:00	07:00					11:00
Vol.		68	34	7	23	3	1	5	4					129
PM Peak	12:00	16:00	16:00	13:00	15:00	12:00		13:00	14:00	17:00				16:00
Vol.	1	174	45	5	30	3		6	4	1				251

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/24/22	0	4	2	0	0	0	0	0	0	0	0	0	0	6
01:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
02:00	0	3	3	1	0	0	0	0	0	0	0	0	0	7
03:00	0	1	2	1	0	0	0	0	1	0	0	0	0	5
04:00	0	16	5	1	1	1	0	0	2	0	0	0	0	26
05:00	1	25	10	3	5	0	0	0	1	0	0	0	0	45
06:00	0	47	10	0	4	0	1	1	0	0	0	0	0	63
07:00	0	74	26	4	11	1	2	2	1	0	0	0	1	122
08:00	0	56	26	6	9	3	1	4	0	0	0	0	0	105
09:00	0	55	21	2	17	1	1	3	1	0	0	0	0	101
10:00	0	54	17	2	10	3	1	2	0	0	0	0	0	89
11:00	0	57	25	1	15	3	1	1	2	0	0	0	0	105
12 PM	1	75	20	3	11	2	1	2	2	0	0	0	0	117
13:00	1	75	35	3	21	3	0	1	0	0	0	0	0	139
14:00	0	66	38	4	12	3	0	3	2	0	0	0	0	128
15:00	0	125	56	3	22	0	1	1	1	0	0	0	0	209
16:00	0	164	42	2	17	0	0	3	2	0	0	0	0	230
17:00	1	157	46	1	24	1	0	7	1	0	0	0	0	238
18:00	0	93	50	0	1	0	0	0	3	0	0	0	0	147
19:00	0	71	20	2	6	0	0	2	0	0	0	0	0	101
20:00	0	54	12	1	3	0	0	1	2	0	0	0	0	73
21:00	0	36	18	0	6	0	0	0	0	0	0	0	0	60
22:00	0	22	4	0	1	0	0	0	0	0	0	0	0	27
23:00	0	13	5	0	1	0	0	1	0	0	0	0	0	20
Total	4	1344	493	40	198	21	9	34	21	0	0	0	1	2165
Percent	0.2%	62.1%	22.8%	1.8%	9.1%	1.0%	0.4%	1.6%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	08:00	09:00	08:00	07:00	08:00	04:00				07:00	07:00
Vol.	1	74	26	6	17	3	2	4	2				1	122
PM Peak	12:00	16:00	15:00	14:00	17:00	13:00	12:00	17:00	18:00					17:00
Vol.	1	164	56	4	24	3	1	7	3					238

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/25/22	0	6	1	0	1	0	0	0	0	0	0	0	0	8
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	4	3	1	0	0	0	0	0	0	0	0	0	8
04:00	0	8	4	1	1	0	0	0	0	0	0	0	0	14
05:00	0	25	12	2	3	1	2	1	1	0	0	0	0	47
06:00	0	43	9	4	9	1	1	0	0	0	0	0	0	67
07:00	0	78	32	1	14	1	2	3	3	0	0	0	0	134
08:00	0	62	28	4	13	1	0	0	1	0	0	0	0	109
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	231	91	13	41	4	5	4	5	0	0	0	0	394
Percent	0.0%	58.6%	23.1%	3.3%	10.4%	1.0%	1.3%	1.0%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	06:00	07:00	05:00	05:00	07:00	07:00					07:00
Vol.		78	32	4	14	1	2	3	3					134
PM Peak														
Vol.														
Grand Total	44	10644	3585	306	1556	113	45	249	177	1	0	0	2	16722
Percent	0.3%	63.7%	21.4%	1.8%	9.3%	0.7%	0.3%	1.5%	1.1%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	0	43	16	2	9	1	0	1	3	0	0	0	0	75
12 PM	0	66	23	2	13	4	0	0	2	0	0	0	0	110
13:00	0	64	16	3	11	5	0	2	3	0	0	0	0	104
14:00	0	61	26	1	5	0	0	2	2	0	0	0	0	97
15:00	0	84	28	1	13	3	0	2	2	0	0	0	0	133
16:00	2	87	32	1	17	0	0	1	0	0	0	0	0	140
17:00	0	109	25	0	7	0	0	0	2	0	0	0	0	143
18:00	2	70	17	1	6	0	0	1	1	0	0	0	0	98
19:00	0	65	18	0	5	0	0	0	0	0	0	0	0	88
20:00	1	46	17	0	3	0	0	0	0	0	0	0	0	67
21:00	0	31	11	0	2	0	0	0	0	0	0	0	0	44
22:00	0	26	4	0	2	0	0	0	0	0	0	0	0	32
23:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
Total	5	763	235	11	93	13	0	9	15	0	0	0	0	1144
Percent	0.4%	66.7%	20.5%	1.0%	8.1%	1.1%	0.0%	0.8%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	11:00	11:00	11:00	11:00		11:00	11:00					11:00
Vol.		43	16	2	9	1		1	3					75
PM Peak	16:00	17:00	16:00	13:00	16:00	13:00		13:00	13:00					17:00
Vol.	2	109	32	3	17	5		2	3					143

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/18/22	0	5	1	0	0	0	0	0	0	0	0	0	0	6
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	1	1	0	0	1	0	0	0	1	0	0	0	0	4
04:00	0	11	2	0	1	0	0	0	0	0	0	0	0	14
05:00	0	12	0	0	2	1	0	0	2	0	0	0	0	17
06:00	1	18	3	2	10	0	0	0	3	0	0	0	0	37
07:00	0	54	16	0	15	1	0	0	2	0	0	0	0	88
08:00	1	41	9	4	4	0	0	0	3	0	0	0	0	62
09:00	0	33	16	2	6	5	1	2	1	0	0	0	0	66
10:00	0	40	13	0	4	1	0	0	4	0	0	0	0	62
11:00	1	43	11	5	8	5	0	0	6	0	0	0	0	79
12 PM	0	58	16	1	5	0	0	1	1	0	0	0	0	82
13:00	2	71	22	4	8	2	1	3	1	0	0	0	0	114
14:00	0	70	28	6	9	2	0	3	3	0	0	0	0	121
15:00	2	98	35	4	2	0	0	2	3	0	0	0	1	147
16:00	1	109	25	3	10	0	1	0	0	0	0	0	0	149
17:00	0	105	20	2	7	1	0	2	1	0	0	0	0	138
18:00	1	85	28	3	10	0	0	1	1	0	0	0	0	129
19:00	0	53	19	1	7	0	0	1	1	0	0	0	0	82
20:00	0	53	15	1	5	0	0	2	0	0	0	0	0	76
21:00	1	27	6	1	1	0	0	0	0	0	0	0	0	36
22:00	0	21	7	0	0	1	0	0	0	0	0	0	0	29
23:00	0	13	1	1	1	0	0	0	0	0	0	0	0	16
Total	11	1024	294	40	116	19	3	17	33	0	0	0	1	1558
Percent	0.7%	65.7%	18.9%	2.6%	7.4%	1.2%	0.2%	1.1%	2.1%	0.0%	0.0%	0.0%	0.1%	
AM Peak	03:00	07:00	07:00	11:00	07:00	09:00	09:00	09:00	11:00					07:00
Vol.	1	54	16	5	15	5	1	2	6					88
PM Peak	13:00	16:00	15:00	14:00	16:00	13:00	13:00	13:00	14:00				15:00	16:00
Vol.	2	109	35	6	10	2	1	3	3				1	149

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/19/22	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:00	0	5	0	0	1	0	0	0	0	0	0	0	0	6
02:00	0	1	0	0	0	1	0	0	0	0	0	0	0	2
03:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
04:00	0	11	3	0	0	0	0	0	0	0	0	0	0	14
05:00	0	13	1	0	1	0	0	0	0	0	0	0	0	15
06:00	0	14	7	2	5	2	1	0	4	0	0	0	0	35
07:00	0	52	17	2	11	1	0	0	0	0	0	0	0	83
08:00	0	48	10	4	9	1	1	1	5	0	0	0	0	79
09:00	0	34	17	4	13	7	0	1	2	0	0	0	0	78
10:00	0	46	23	4	7	0	1	5	1	0	0	0	0	87
11:00	0	41	21	2	4	4	1	1	3	0	0	0	0	77
12 PM	1	57	14	2	14	1	1	0	2	0	0	0	0	92
13:00	0	54	22	2	8	4	1	2	0	0	0	0	0	93
14:00	0	71	21	3	11	0	1	3	4	0	0	0	0	114
15:00	0	66	28	0	12	4	0	2	3	0	0	0	0	115
16:00	1	111	28	2	19	0	0	0	0	0	0	0	0	161
17:00	0	118	28	1	11	0	0	2	1	0	0	0	0	161
18:00	0	93	39	0	7	0	0	1	1	0	0	0	0	141
19:00	0	62	19	1	5	0	0	0	1	0	0	0	0	88
20:00	0	42	10	0	3	0	2	1	0	0	0	0	0	58
21:00	0	51	16	1	6	0	0	0	0	0	0	0	0	74
22:00	0	20	6	0	3	0	3	0	0	0	0	0	0	32
23:00	0	10	0	0	2	0	2	0	0	0	0	0	0	14
Total	2	1027	331	31	152	25	14	19	27	0	0	0	0	1628
Percent	0.1%	63.1%	20.3%	1.9%	9.3%	1.5%	0.9%	1.2%	1.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	10:00	08:00	09:00	09:00	06:00	10:00	08:00					10:00
Vol.		52	23	4	13	7	1	5	5					87
PM Peak	12:00	17:00	18:00	14:00	16:00	13:00	22:00	14:00	14:00					16:00
Vol.	1	118	39	3	19	4	3	3	4					161

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/20/22	0	5	0	0	0	0	3	0	0	0	0	0	0	8
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	1	0	0	1	2	2	0	0	0	0	0	0	6
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	11	2	0	1	0	0	0	0	0	0	0	0	14
05:00	0	9	2	0	3	0	0	0	2	0	0	0	0	16
06:00	0	18	7	1	4	1	2	1	4	0	0	0	0	38
07:00	0	59	12	2	7	1	0	2	1	0	0	0	0	84
08:00	1	49	13	6	11	2	0	0	1	0	0	0	0	83
09:00	0	38	6	1	9	2	0	0	3	0	0	0	0	59
10:00	0	49	18	3	6	1	0	1	1	0	0	0	0	79
11:00	0	73	18	0	14	6	0	1	2	0	0	0	0	114
12 PM	0	73	20	2	6	1	0	0	0	0	0	0	0	102
13:00	0	66	9	6	11	5	0	3	3	0	0	0	0	103
14:00	0	75	25	1	8	2	1	2	0	0	0	0	0	114
15:00	1	84	27	2	10	1	2	0	0	0	0	0	0	127
16:00	1	94	35	2	16	0	0	1	1	0	0	0	0	150
17:00	0	92	28	0	8	0	0	3	0	0	0	0	0	131
18:00	1	71	23	1	11	0	0	0	1	0	0	0	0	108
19:00	0	65	20	0	12	0	0	0	0	0	0	0	0	97
20:00	0	47	9	0	4	0	0	0	0	0	0	0	0	60
21:00	0	41	9	0	2	0	0	0	0	0	0	0	0	52
22:00	0	20	5	0	1	0	0	0	0	0	0	0	0	26
23:00	0	19	4	0	2	0	0	0	0	0	0	0	0	25
Total	4	1065	293	27	147	24	10	14	19	0	0	0	0	1603
Percent	0.2%	66.4%	18.3%	1.7%	9.2%	1.5%	0.6%	0.9%	1.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	10:00	08:00	11:00	11:00	00:00	07:00	06:00					11:00
Vol.	1	73	18	6	14	6	3	2	4					114
PM Peak	15:00	16:00	16:00	13:00	16:00	13:00	15:00	13:00	13:00					16:00
Vol.	1	94	35	6	16	5	2	3	3					150

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/21/22	0	16	2	0	1	0	0	0	0	0	0	0	0	19
01:00	0	8	0	1	0	0	0	0	1	0	0	0	0	10
02:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
03:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
04:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
05:00	0	7	5	0	0	0	0	0	0	0	0	0	0	12
06:00	0	14	5	0	2	0	0	1	1	0	0	0	0	23
07:00	0	55	12	1	3	0	0	0	0	0	0	0	0	71
08:00	0	63	15	3	6	1	0	0	0	0	0	0	0	88
09:00	1	68	13	3	5	0	0	0	1	0	0	0	0	91
10:00	1	65	20	1	11	0	0	1	2	0	0	0	0	101
11:00	1	72	25	2	7	2	0	0	0	0	0	0	0	109
12 PM	3	76	17	0	10	1	0	1	1	0	0	0	0	109
13:00	1	76	12	0	15	1	0	0	0	0	0	0	0	105
14:00	0	61	24	1	8	0	0	1	0	0	0	0	0	95
15:00	1	74	11	1	8	0	0	0	0	0	0	0	0	95
16:00	2	77	17	1	10	0	0	1	0	0	0	0	0	108
17:00	1	55	19	0	8	0	0	0	0	0	0	0	0	83
18:00	0	68	16	0	6	0	0	0	0	0	0	0	0	90
19:00	1	39	12	1	3	0	0	1	1	0	0	0	0	58
20:00	1	43	11	0	5	0	0	0	0	0	0	0	0	60
21:00	1	34	9	0	4	0	0	0	0	0	0	0	0	48
22:00	0	28	10	0	3	0	0	1	0	0	0	0	0	42
23:00	0	15	8	0	0	0	0	0	0	0	0	0	0	23
Total	14	1028	266	15	116	5	0	7	7	0	0	0	0	1458
Percent	1.0%	70.5%	18.2%	1.0%	8.0%	0.3%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	11:00	08:00	10:00	11:00		06:00	10:00					11:00
Vol.	1	72	25	3	11	2		1	2					109
PM Peak	12:00	16:00	14:00	14:00	13:00	12:00		12:00	12:00					12:00
Vol.	3	77	24	1	15	1		1	1					109

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/22/22	0	10	2	0	1	0	0	0	0	0	0	0	0	13
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
03:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
04:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
05:00	0	7	2	0	1	0	0	0	0	0	0	0	0	10
06:00	0	8	2	0	1	0	0	0	0	0	0	0	0	11
07:00	0	13	7	0	1	0	0	0	0	0	0	0	0	21
08:00	0	42	15	0	6	0	0	0	0	0	0	0	0	63
09:00	0	44	8	0	5	0	0	0	0	0	0	0	0	57
10:00	1	51	12	1	6	0	0	1	1	0	0	0	0	73
11:00	0	52	20	0	4	0	0	0	3	0	0	0	0	79
12 PM	0	68	19	0	7	0	0	1	0	0	0	0	0	95
13:00	0	65	20	1	6	0	0	0	0	0	0	0	0	92
14:00	0	58	17	0	11	0	0	0	0	0	0	0	0	86
15:00	0	56	18	1	5	0	0	0	0	0	0	0	0	80
16:00	0	60	13	0	5	0	0	0	0	0	0	0	0	78
17:00	0	57	21	0	4	0	0	2	1	0	0	0	0	85
18:00	0	51	8	0	4	0	0	0	0	0	0	0	0	63
19:00	0	32	10	0	3	0	0	0	0	0	0	0	0	45
20:00	0	32	6	0	2	0	0	0	2	0	0	0	0	42
21:00	0	24	11	0	0	0	0	0	0	0	0	0	0	35
22:00	0	15	3	0	0	0	0	0	1	1	0	0	0	20
23:00	0	8	2	0	1	0	0	0	0	0	0	0	0	11
Total	1	767	220	3	74	0	0	4	8	1	0	0	0	1078
Percent	0.1%	71.2%	20.4%	0.3%	6.9%	0.0%	0.0%	0.4%	0.7%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00	10:00	08:00			10:00	11:00					11:00
Vol.	1	52	20	1	6			1	3					79
PM Peak		12:00	17:00	13:00	14:00			17:00	20:00	22:00				12:00
Vol.		68	21	1	11			2	2	1				95

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/23/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	11	5	0	0	0	0	0	0	0	0	0	0	16
05:00	0	11	2	0	3	0	0	0	1	0	0	0	0	17
06:00	0	19	6	3	7	0	5	0	3	0	0	0	0	43
07:00	0	53	12	0	9	2	1	1	0	0	0	0	0	78
08:00	0	50	15	3	11	5	1	3	1	0	0	0	0	89
09:00	1	31	12	2	11	2	2	0	1	0	0	0	0	62
10:00	0	39	16	4	5	4	0	1	5	0	0	0	0	74
11:00	0	51	14	5	11	3	2	2	2	0	0	0	0	90
12 PM	0	50	20	2	6	5	0	1	3	0	0	0	0	87
13:00	0	60	15	5	5	5	0	2	3	0	0	0	0	95
14:00	0	55	27	2	13	0	0	3	0	0	0	0	0	100
15:00	0	78	24	3	6	2	1	0	2	0	0	0	0	116
16:00	0	94	25	2	10	0	0	0	1	0	0	0	0	132
17:00	1	117	24	0	12	0	0	0	1	0	0	0	0	155
18:00	0	59	24	0	3	0	0	0	1	0	0	0	0	87
19:00	0	58	17	0	5	0	0	1	0	0	0	0	0	81
20:00	0	36	7	0	3	0	0	0	0	0	0	0	0	46
21:00	0	32	6	0	1	0	0	0	0	0	0	0	0	39
22:00	0	18	3	0	0	0	0	0	0	0	0	0	0	21
23:00	0	8	2	0	0	0	0	0	2	0	0	0	0	12
Total	2	933	277	31	121	28	12	14	26	0	0	0	0	1444
Percent	0.1%	64.6%	19.2%	2.1%	8.4%	1.9%	0.8%	1.0%	1.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	10:00	11:00	08:00	08:00	06:00	08:00	10:00					11:00
Vol.	1	53	16	5	11	5	5	3	5					90
PM Peak	17:00	17:00	14:00	13:00	14:00	12:00	15:00	14:00	12:00					17:00
Vol.	1	117	27	5	13	5	1	3	3					155

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/24/22	0	5	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
04:00	0	14	3	0	0	1	0	0	0	0	0	0	0	18
05:00	0	13	4	0	3	0	0	0	0	0	0	0	0	20
06:00	0	14	6	1	3	1	0	2	3	0	0	0	0	30
07:00	0	60	9	3	7	1	0	1	1	0	0	0	0	82
08:00	1	44	12	5	10	0	0	1	3	0	0	0	0	76
09:00	0	36	14	2	13	3	0	1	3	0	0	0	0	72
10:00	0	37	14	4	7	1	0	0	3	0	0	0	0	66
11:00	1	49	16	2	10	2	0	0	1	0	0	0	0	81
12 PM	0	61	16	2	9	4	0	1	0	0	0	0	0	93
13:00	0	64	29	3	3	3	0	0	0	0	0	0	0	102
14:00	2	77	23	0	8	0	0	2	4	0	0	0	0	116
15:00	0	72	32	2	15	2	1	1	1	0	0	0	0	126
16:00	0	83	25	2	11	1	0	1	1	0	0	0	0	124
17:00	1	105	20	0	7	0	0	2	0	0	0	0	0	135
18:00	0	74	16	2	8	0	0	1	1	0	0	0	0	102
19:00	1	59	11	0	7	0	0	0	0	0	0	0	0	78
20:00	0	41	11	0	1	0	0	0	0	0	0	0	0	53
21:00	0	33	6	1	0	0	0	0	0	0	0	0	0	40
22:00	0	23	0	0	0	0	0	0	0	0	0	0	0	23
23:00	0	14	2	0	1	0	0	0	0	0	0	0	0	17
Total	6	984	269	29	124	19	1	13	21	0	0	0	0	1466
Percent	0.4%	67.1%	18.3%	2.0%	8.5%	1.3%	0.1%	0.9%	1.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	11:00	08:00	09:00	09:00		06:00	06:00					07:00
Vol.	1	60	16	5	13	3		2	3					82
PM Peak	14:00	17:00	15:00	13:00	15:00	12:00	15:00	14:00	14:00					17:00
Vol.	2	105	32	3	15	4	1	2	4					135

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/25/22	0	5	0	0	1	0	0	0	0	0	0	0	0	6
01:00	0	1	0	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	2	0	0	1	0	0	0	0	0	0	0	0	3
04:00	1	9	3	0	0	0	0	0	0	0	0	0	0	13
05:00	0	8	1	0	2	0	0	0	2	0	0	0	0	13
06:00	1	22	6	2	5	0	0	0	1	0	0	0	0	37
07:00	0	74	19	2	16	0	1	1	2	0	0	0	0	115
08:00	0	34	13	3	13	3	0	2	2	0	0	0	0	70
09:00	1	45	8	3	13	3	0	0	2	0	0	0	0	75
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	3	200	50	10	51	6	1	3	9	0	0	0	0	333
Percent	0.9%	60.1%	15.0%	3.0%	15.3%	1.8%	0.3%	0.9%	2.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	04:00	07:00	07:00	08:00	07:00	08:00	07:00	08:00	05:00					07:00
Vol.	1	74	19	3	16	3	1	2	2					115
PM Peak														
Vol.														
Grand Total	48	7791	2235	197	994	139	41	100	165	1	0	0	1	11712
Percent	0.4%	66.5%	19.1%	1.7%	8.5%	1.2%	0.4%	0.9%	1.4%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	0	58	17	3	9	1	4	1	1	0	0	0	0	94
11:00	1	32	6	1	7	0	1	0	5	0	0	0	0	53
12 PM	0	69	16	1	10	0	0	3	0	0	0	0	0	99
13:00	0	49	16	0	6	2	1	0	2	0	0	0	0	76
14:00	1	42	17	2	12	0	0	0	1	0	0	0	0	75
15:00	0	55	17	2	8	0	0	0	2	0	0	0	0	84
16:00	0	67	17	1	9	0	0	1	1	0	0	0	0	96
17:00	2	68	20	0	5	0	0	0	1	0	0	0	0	96
18:00	3	41	14	1	2	0	0	0	0	0	0	0	0	61
19:00	0	34	10	0	5	0	0	0	0	0	0	0	0	49
20:00	0	34	8	0	6	0	0	0	0	0	0	0	0	48
21:00	0	15	4	0	0	0	0	0	0	0	0	0	0	19
22:00	0	7	3	0	1	0	0	0	0	0	0	0	0	11
23:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Total	7	575	165	11	80	3	6	5	13	0	0	0	0	865
Percent	0.8%	66.5%	19.1%	1.3%	9.2%	0.3%	0.7%	0.6%	1.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	10:00	10:00	10:00	10:00	10:00	10:00	10:00	11:00					10:00
Vol.	1	58	17	3	9	1	4	1	5					94
PM Peak	18:00	12:00	17:00	14:00	14:00	13:00	13:00	12:00	13:00					12:00
Vol.	3	69	20	2	12	2	1	3	2					99

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/18/22	0	1	0	0	1	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	5	1	1	0	0	0	0	0	0	0	0	0	7
04:00	0	5	5	2	1	0	0	1	1	0	0	0	0	15
05:00	0	17	6	1	3	0	0	4	0	0	0	0	0	31
06:00	0	68	24	4	8	2	3	0	4	0	0	0	0	113
07:00	0	85	18	2	9	0	0	1	1	0	0	0	0	116
08:00	0	57	24	0	14	0	0	1	2	0	0	0	0	98
09:00	0	48	16	2	6	0	2	0	5	0	0	0	0	79
10:00	0	40	12	4	7	2	0	0	0	0	0	0	0	65
11:00	1	49	11	4	4	0	1	2	2	0	0	0	0	74
12 PM	0	52	18	0	5	0	3	0	1	0	0	0	0	79
13:00	0	49	25	0	8	0	2	0	2	0	0	0	0	86
14:00	0	51	16	8	7	0	0	0	2	0	0	0	0	84
15:00	0	68	17	1	7	1	1	2	3	0	0	0	0	100
16:00	0	82	27	0	9	0	0	0	1	0	0	0	0	119
17:00	0	89	20	2	10	0	0	0	0	0	0	0	0	121
18:00	0	56	14	2	8	0	0	1	0	0	0	0	0	81
19:00	1	33	9	0	3	0	0	0	0	0	0	0	0	46
20:00	0	19	3	0	1	0	0	0	0	0	0	0	0	23
21:00	0	19	4	0	2	0	0	0	0	0	0	0	0	25
22:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
23:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
Total	2	905	271	33	113	5	12	12	24	0	0	0	0	1377
Percent	0.1%	65.7%	19.7%	2.4%	8.2%	0.4%	0.9%	0.9%	1.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	06:00	06:00	08:00	06:00	06:00	05:00	09:00					07:00
Vol.	1	85	24	4	14	2	3	4	5					116
PM Peak	19:00	17:00	16:00	14:00	17:00	15:00	12:00	15:00	15:00					17:00
Vol.	1	89	27	8	10	1	3	2	3					121

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/19/22	0	1	0	1	0	0	0	0	0	0	0	0	0	2
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	4	3	0	1	0	0	0	0	0	0	0	0	8
04:00	0	3	4	1	2	0	0	0	0	0	0	0	0	10
05:00	0	18	8	2	3	0	0	1	0	0	0	0	0	32
06:00	0	61	20	2	13	1	1	1	2	0	0	0	0	101
07:00	0	92	23	2	11	2	2	1	1	0	0	0	0	134
08:00	0	79	32	1	7	2	1	2	1	0	0	0	0	125
09:00	0	50	20	0	5	0	1	2	2	0	0	0	0	80
10:00	0	53	12	1	9	4	4	2	0	0	0	0	0	85
11:00	0	41	23	3	5	6	1	2	3	0	0	0	0	84
12 PM	0	51	12	0	4	2	1	0	1	0	0	0	0	71
13:00	0	31	11	1	15	0	1	1	1	0	0	0	0	61
14:00	0	59	20	1	13	2	0	0	1	0	0	0	0	96
15:00	0	69	17	2	7	0	0	0	3	0	0	0	0	98
16:00	0	69	20	2	8	0	0	0	0	0	0	0	0	99
17:00	0	69	28	0	8	0	0	0	0	0	0	0	0	105
18:00	0	41	15	0	3	0	0	0	0	0	0	0	0	59
19:00	0	50	14	0	4	0	0	0	0	0	0	0	0	68
20:00	1	44	7	1	0	2	0	0	0	0	0	0	0	55
21:00	0	16	5	0	0	0	0	0	0	0	0	0	0	21
22:00	0	4	2	0	0	3	0	0	0	0	0	0	0	9
23:00	0	3	0	0	0	2	0	0	0	0	0	0	0	5
Total	1	912	296	20	118	26	12	12	15	0	0	0	0	1412
Percent	0.1%	64.6%	21.0%	1.4%	8.4%	1.8%	0.8%	0.8%	1.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	08:00	11:00	06:00	11:00	10:00	08:00	11:00					07:00
Vol.		92	32	3	13	6	4	2	3					134
PM Peak	20:00	15:00	17:00	15:00	13:00	22:00	12:00	13:00	15:00					17:00
Vol.	1	69	28	2	15	3	1	1	3					105

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/20/22	0	1	1	0	0	3	0	0	0	0	0	0	0	5
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2
03:00	0	4	0	0	0	1	0	0	0	0	0	0	0	5
04:00	0	10	3	2	1	0	0	1	0	0	0	0	0	17
05:00	1	9	7	0	5	1	0	0	0	0	0	0	0	23
06:00	1	54	17	3	15	3	1	2	3	0	0	0	0	99
07:00	1	73	24	2	15	1	2	0	1	0	0	0	0	119
08:00	0	63	19	3	15	0	1	1	1	0	0	0	0	103
09:00	0	61	19	0	6	1	5	1	0	0	0	0	0	93
10:00	0	49	12	3	10	0	0	3	2	0	0	0	0	79
11:00	0	55	15	1	5	0	1	3	1	0	0	0	0	81
12 PM	3	44	22	1	8	1	2	0	2	0	0	0	0	83
13:00	0	65	17	1	11	2	2	0	0	0	0	0	0	98
14:00	0	52	14	3	6	2	0	0	1	0	0	0	0	78
15:00	1	69	17	1	10	0	2	0	0	0	0	0	0	100
16:00	0	63	16	0	7	0	0	0	0	0	0	0	0	86
17:00	1	70	13	0	9	0	0	0	0	0	0	0	0	93
18:00	0	45	14	0	8	0	0	0	1	0	0	0	0	68
19:00	0	44	11	0	1	0	0	2	0	0	0	0	0	58
20:00	1	33	6	0	2	0	0	0	0	0	0	0	0	42
21:00	0	19	5	0	1	0	0	0	0	0	0	0	0	25
22:00	0	17	4	0	0	0	0	0	0	0	0	0	0	21
23:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
Total	9	902	258	20	135	17	16	13	12	0	0	0	0	1382
Percent	0.7%	65.3%	18.7%	1.4%	9.8%	1.2%	1.2%	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	06:00	06:00	00:00	09:00	10:00	06:00					07:00
Vol.	1	73	24	3	15	3	5	3	3					119
PM Peak	12:00	17:00	12:00	14:00	13:00	13:00	12:00	19:00	12:00					15:00
Vol.	3	70	22	3	11	2	2	2	2					100

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/21/22	0	7	0	0	0	0	0	0	0	0	0	0	0	7
01:00	0	4	1	1	0	0	0	0	0	0	0	0	0	6
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
03:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	3	2	0	1	0	0	0	0	0	0	0	0	6
05:00	0	8	2	1	2	0	0	1	0	0	0	0	0	14
06:00	0	17	12	1	4	2	0	1	1	0	0	0	0	38
07:00	0	37	12	0	3	1	0	0	0	0	0	0	0	53
08:00	1	43	9	1	6	1	0	1	1	0	0	0	0	63
09:00	0	53	15	0	6	1	1	1	0	0	0	0	0	77
10:00	0	67	23	0	9	0	1	0	0	0	0	0	0	100
11:00	0	56	9	1	6	1	1	0	0	0	0	0	0	74
12 PM	0	67	18	0	6	1	1	0	0	0	0	0	0	93
13:00	0	61	19	0	7	0	0	1	1	0	0	0	0	89
14:00	1	64	15	0	6	0	0	0	1	0	0	0	0	87
15:00	1	81	25	1	8	0	0	0	1	0	0	0	0	117
16:00	0	84	20	1	8	0	0	0	0	0	0	0	0	113
17:00	1	66	15	0	4	0	0	0	0	0	0	0	0	86
18:00	1	32	17	0	5	0	0	0	0	0	0	0	0	55
19:00	0	33	10	2	4	0	0	1	0	0	0	0	0	50
20:00	0	26	8	0	6	0	0	0	1	0	0	0	0	41
21:00	0	19	3	0	3	0	0	0	0	0	0	0	0	25
22:00	0	22	0	0	4	0	0	0	0	0	0	0	0	26
23:00	0	6	3	0	2	0	0	0	0	0	0	0	0	11
Total	5	862	240	9	100	7	4	6	6	0	0	0	0	1239
Percent	0.4%	69.6%	19.4%	0.7%	8.1%	0.6%	0.3%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	10:00	10:00	01:00	10:00	06:00	09:00	05:00	06:00					10:00
Vol.	1	67	23	1	9	2	1	1	1					100
PM Peak	14:00	16:00	15:00	19:00	15:00	12:00	12:00	13:00	13:00					15:00
Vol.	1	84	25	2	8	1	1	1	1					117

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/22/22	0	2	2	0	1	0	0	0	0	0	0	0	0	5
01:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	3	1	0	0	0	0	0	1	0	0	0	0	5
04:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
05:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
06:00	0	19	1	0	2	0	0	0	0	0	0	0	0	22
07:00	0	17	12	0	4	0	0	0	0	0	0	0	0	33
08:00	0	39	8	0	8	0	0	1	1	0	0	0	0	57
09:00	0	45	12	0	5	0	0	0	0	0	0	0	0	62
10:00	0	72	12	0	4	0	0	0	0	0	0	0	0	88
11:00	0	48	20	0	3	0	0	1	0	0	0	0	0	72
12 PM	0	82	17	0	3	0	0	0	0	0	0	0	0	102
13:00	1	58	13	1	5	0	0	0	0	0	0	0	0	78
14:00	1	67	15	0	7	0	0	0	0	0	0	0	0	90
15:00	1	73	17	0	12	0	0	0	1	0	0	0	0	104
16:00	0	70	19	0	7	0	0	0	0	0	0	0	0	96
17:00	0	61	6	0	7	0	0	1	0	0	0	0	0	75
18:00	0	48	10	0	6	0	0	0	0	0	0	0	0	64
19:00	0	32	5	0	2	0	0	0	0	0	0	0	0	39
20:00	0	25	5	0	1	0	0	0	0	0	0	0	0	31
21:00	0	11	3	0	0	0	0	0	0	0	0	0	0	14
22:00	0	5	0	0	1	0	0	0	0	0	0	0	0	6
23:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
Total	3	791	180	1	81	0	0	3	3	0	0	0	0	1062
Percent	0.3%	74.5%	16.9%	0.1%	7.6%	0.0%	0.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak		10:00	11:00		08:00			08:00	03:00					10:00
Vol.		72	20		8			1	1					88
PM Peak	13:00	12:00	16:00	13:00	15:00			17:00	15:00					15:00
Vol.	1	82	19	1	12			1	1					104

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/23/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	3	1	0	0	0	1	0	0	0	0	0	6
04:00	0	7	0	0	3	0	0	1	1	0	0	0	0	12
05:00	0	16	5	0	5	0	0	3	0	0	0	0	0	29
06:00	0	64	19	4	13	2	4	0	1	0	0	0	0	107
07:00	0	75	22	0	16	1	1	4	1	0	0	0	0	120
08:00	0	69	20	1	8	2	0	1	1	0	0	0	0	102
09:00	0	47	21	4	11	4	3	1	1	0	0	0	0	92
10:00	0	47	8	0	6	2	3	0	1	0	0	0	0	67
11:00	0	45	11	4	8	6	4	0	3	0	0	0	0	81
12 PM	0	48	6	3	7	2	1	0	0	0	0	0	0	67
13:00	0	48	15	4	12	0	2	0	0	0	0	0	0	81
14:00	0	40	11	2	3	2	0	0	1	0	0	0	0	59
15:00	0	72	21	4	9	0	0	0	0	0	0	0	0	106
16:00	0	71	19	0	6	0	0	0	1	0	0	0	0	97
17:00	0	63	20	0	7	0	0	0	0	0	0	0	0	90
18:00	2	54	16	0	5	0	0	0	0	0	0	0	0	77
19:00	0	24	9	0	2	0	0	0	1	0	0	0	0	36
20:00	0	21	5	0	4	0	0	0	0	0	0	0	0	30
21:00	1	12	2	0	2	0	0	0	0	0	0	0	0	17
22:00	0	3	0	0	1	0	0	0	1	0	0	0	0	5
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	3	832	233	28	129	21	18	11	13	0	0	0	0	1288
Percent	0.2%	64.6%	18.1%	2.2%	10.0%	1.6%	1.4%	0.9%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	06:00	07:00	11:00	06:00	07:00	11:00					07:00
Vol.		75	22	4	16	6	4	4	3					120
PM Peak	18:00	15:00	15:00	13:00	13:00	12:00	13:00		14:00					15:00
Vol.	2	72	21	4	12	2	2		1					106

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/24/22	0	1	1	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	1	0	0	1	0	0	0	0	0	0	0	0	2
03:00	0	4	0	0	1	0	0	1	0	0	0	0	0	6
04:00	0	10	2	3	2	0	0	2	0	0	0	0	0	19
05:00	0	16	4	3	7	0	0	0	0	0	0	0	0	30
06:00	0	61	20	3	10	1	3	1	1	0	0	0	0	100
07:00	0	87	25	2	14	0	1	1	2	0	0	0	0	132
08:00	0	58	27	0	15	0	0	2	2	0	0	0	0	104
09:00	0	54	16	1	11	0	1	1	2	0	0	0	0	86
10:00	0	50	15	2	8	0	1	1	3	0	0	0	0	80
11:00	0	53	6	2	7	1	1	0	1	0	0	0	0	71
12 PM	1	59	16	0	13	1	4	0	0	0	0	0	0	94
13:00	0	59	18	4	6	1	2	3	1	0	0	0	0	94
14:00	1	57	15	1	11	1	1	0	1	0	0	0	0	88
15:00	0	66	17	3	6	0	0	1	1	0	0	0	0	94
16:00	0	71	15	0	10	1	0	1	0	0	0	0	0	98
17:00	0	64	18	1	8	0	0	0	0	0	0	0	0	91
18:00	0	47	10	0	6	0	0	0	0	0	0	0	0	63
19:00	0	38	6	1	4	0	0	0	2	0	0	0	0	51
20:00	0	18	6	0	2	0	0	0	0	0	0	0	0	26
21:00	0	16	2	0	3	0	0	0	0	0	0	0	0	21
22:00	0	8	0	0	1	0	0	0	0	0	0	0	0	9
23:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Total	2	899	239	27	146	6	14	14	16	0	0	0	0	1363
Percent	0.1%	66.0%	17.5%	2.0%	10.7%	0.4%	1.0%	1.0%	1.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	08:00	04:00	08:00	06:00	06:00	04:00	10:00					07:00
Vol.		87	27	3	15	1	3	2	3					132
PM Peak	12:00	16:00	13:00	13:00	12:00	12:00	12:00	13:00	19:00					16:00
Vol.	1	71	18	4	13	1	4	3	2					98

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/25/22	0	3	0	0	0	0	0	0	0	0	0	0	0	3
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	0	1	0	0	0	0	0	0	0	0	0	4
04:00	0	3	2	2	1	0	0	2	0	0	0	0	0	10
05:00	1	19	9	2	5	0	0	2	0	0	0	0	0	38
06:00	0	70	17	1	13	1	3	1	1	0	0	0	0	107
07:00	0	79	25	1	10	1	2	2	0	0	0	0	0	120
08:00	0	64	20	2	16	0	1	0	2	0	0	0	0	105
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	1	242	74	9	45	2	6	7	3	0	0	0	0	389
Percent	0.3%	62.2%	19.0%	2.3%	11.6%	0.5%	1.5%	1.8%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	04:00	08:00	06:00	06:00	04:00	08:00					07:00
Vol.	1	79	25	2	16	1	3	2	2					120
PM Peak														
Vol.														
Grand Total	33	6920	1956	158	947	87	88	83	105	0	0	0	0	10377
Percent	0.3%	66.7%	18.8%	1.5%	9.1%	0.8%	0.8%	0.8%	1.0%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	1	59	31	3	15	2	0	1	1	0	0	0	0	113
11:00	0	78	27	6	21	0	1	5	1	0	0	0	0	139
12 PM	2	66	34	8	20	1	0	3	4	0	0	0	0	138
13:00	1	63	37	5	14	1	0	3	2	0	0	0	0	126
14:00	1	87	32	8	24	0	2	6	1	0	0	0	0	161
15:00	4	96	41	5	19	1	0	4	3	0	0	0	0	173
16:00	2	95	44	2	19	2	0	1	0	0	0	0	0	165
17:00	0	88	33	5	19	1	0	0	2	0	0	0	0	148
18:00	0	91	31	1	10	1	0	1	0	0	0	0	0	135
19:00	2	54	13	2	6	1	0	2	0	0	0	0	0	80
20:00	0	41	15	0	4	0	0	1	0	0	0	0	0	61
21:00	0	21	8	0	5	0	0	0	0	0	0	0	0	34
22:00	0	19	6	0	1	0	0	0	0	0	0	0	0	26
23:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
Total	13	863	354	45	177	10	3	27	14	0	0	0	0	1506
Percent	0.9%	57.3%	23.5%	3.0%	11.8%	0.7%	0.2%	1.8%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	10:00	11:00	11:00	10:00	11:00	11:00	10:00					11:00
Vol.	1	78	31	6	21	2	1	5	1					139
PM Peak	15:00	15:00	16:00	12:00	14:00	16:00	14:00	14:00	12:00					15:00
Vol.	4	96	44	8	24	2	2	6	4					173

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/18/22	0	1	1	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
03:00	0	7	2	1	1	0	0	0	1	0	0	0	0	12
04:00	0	27	11	0	5	1	0	0	0	0	0	0	2	46
05:00	0	46	22	5	6	1	0	0	1	0	0	0	0	81
06:00	0	114	29	2	22	0	0	1	1	0	0	0	0	169
07:00	3	198	63	7	45	3	0	6	1	0	0	0	0	326
08:00	1	121	38	8	11	1	4	3	2	1	0	0	0	190
09:00	1	50	35	7	20	3	3	3	2	0	0	0	0	124
10:00	0	72	46	5	22	3	0	6	3	0	0	0	0	157
11:00	1	65	35	8	24	2	0	3	2	0	0	0	0	140
12 PM	0	71	36	4	23	1	1	3	0	0	0	0	0	139
13:00	0	74	33	11	13	0	0	6	3	0	0	0	1	141
14:00	1	87	32	3	15	2	0	1	1	0	0	0	0	142
15:00	1	126	44	3	19	2	0	6	1	0	0	0	0	202
16:00	0	110	23	4	19	1	0	2	3	2	0	0	0	164
17:00	1	116	36	1	17	0	0	4	0	0	0	0	0	175
18:00	0	75	24	1	15	2	0	3	2	0	0	0	0	122
19:00	1	40	19	2	10	0	0	3	0	0	0	0	0	75
20:00	0	33	13	1	5	0	0	0	0	0	0	0	0	52
21:00	2	23	8	1	3	0	0	0	0	0	0	0	0	37
22:00	0	14	4	0	0	0	0	0	1	0	0	0	0	19
23:00	0	10	0	0	1	0	0	0	0	0	0	0	0	11
Total	12	1483	556	74	297	22	8	50	24	3	0	0	3	2532
Percent	0.5%	58.6%	22.0%	2.9%	11.7%	0.9%	0.3%	2.0%	0.9%	0.1%	0.0%	0.0%	0.1%	
AM Peak	07:00	07:00	07:00	08:00	07:00	07:00	08:00	07:00	10:00	08:00			04:00	07:00
Vol.	3	198	63	8	45	3	4	6	3	1			2	326
PM Peak	21:00	15:00	15:00	13:00	12:00	14:00	12:00	13:00	13:00	16:00			13:00	15:00
Vol.	2	126	44	11	23	2	1	6	3	2			1	202

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/19/22	0	3	1	0	1	0	0	0	0	0	0	0	0	5
01:00	0	2	0	0	0	0	0	0	1	0	0	0	0	3
02:00	0	2	4	0	2	1	0	0	1	0	0	0	0	10
03:00	0	8	5	0	4	0	0	0	0	0	0	0	0	17
04:00	0	27	11	0	6	0	1	0	1	0	0	0	0	46
05:00	0	48	22	1	14	0	0	0	3	0	0	0	0	88
06:00	0	100	37	2	24	2	1	1	1	0	0	0	0	168
07:00	0	181	50	2	27	0	1	5	2	0	0	0	0	268
08:00	0	128	53	6	24	0	0	3	2	0	0	0	0	216
09:00	0	74	27	5	26	0	2	4	3	0	0	0	0	141
10:00	1	79	26	10	16	2	1	5	6	0	0	0	0	146
11:00	0	79	37	8	14	0	1	3	0	0	0	0	0	142
12 PM	1	90	33	3	29	1	1	7	1	0	0	0	1	167
13:00	0	84	35	4	20	0	0	5	3	0	0	0	0	151
14:00	0	87	33	4	24	1	1	3	4	0	0	0	0	157
15:00	1	138	41	4	27	0	0	3	0	0	0	0	0	214
16:00	1	109	38	3	22	1	0	5	1	0	0	0	0	180
17:00	1	112	46	2	21	0	0	1	1	0	0	0	0	184
18:00	1	89	25	0	17	1	0	2	1	0	0	0	0	136
19:00	0	56	24	2	6	1	0	2	0	0	0	0	0	91
20:00	0	37	17	1	5	0	0	1	0	0	0	0	0	61
21:00	0	27	13	0	2	1	0	0	1	0	0	0	0	44
22:00	0	15	5	0	1	0	0	0	0	0	0	0	0	21
23:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
Total	6	1582	586	57	332	11	9	50	32	0	0	0	1	2666
Percent	0.2%	59.3%	22.0%	2.1%	12.5%	0.4%	0.3%	1.9%	1.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	08:00	10:00	07:00	06:00	09:00	07:00	10:00					07:00
Vol.	1	181	53	10	27	2	2	5	6					268
PM Peak	12:00	15:00	17:00	13:00	12:00	12:00	12:00	12:00	14:00				12:00	15:00
Vol.	1	138	46	4	29	1	1	7	4				1	214

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/20/22	0	5	2	0	0	0	0	0	0	0	0	0	0	7
01:00	0	0	1	0	1	0	0	0	1	0	0	0	0	3
02:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
03:00	0	6	3	1	2	0	0	0	0	1	0	0	0	13
04:00	0	30	12	0	7	1	0	0	1	0	0	0	0	51
05:00	0	38	18	0	8	0	0	0	2	0	0	0	1	67
06:00	1	109	38	3	20	2	0	1	5	0	0	0	0	179
07:00	1	162	61	4	38	2	0	6	3	0	0	0	0	277
08:00	3	125	56	6	28	1	2	5	1	1	0	0	0	228
09:00	1	72	31	5	27	2	1	2	6	0	0	0	2	149
10:00	1	96	27	4	17	2	1	6	3	0	0	0	0	157
11:00	0	90	38	6	29	1	3	4	2	1	0	0	0	174
12 PM	0	118	38	7	29	0	4	2	4	0	0	0	0	202
13:00	0	114	47	8	25	2	0	7	4	0	0	0	0	207
14:00	2	126	46	6	19	1	0	3	0	0	0	0	0	203
15:00	0	117	41	3	25	1	1	1	1	0	0	0	0	190
16:00	0	109	32	5	16	0	1	3	3	0	0	0	0	169
17:00	1	119	32	1	19	0	0	2	2	0	0	0	0	176
18:00	1	114	36	1	11	0	0	1	1	0	0	0	0	165
19:00	0	57	20	3	10	0	0	0	0	0	0	0	0	90
20:00	1	31	13	0	4	1	0	0	0	0	0	0	0	50
21:00	0	26	2	0	5	0	0	0	0	0	0	0	0	33
22:00	0	22	6	0	3	0	0	0	0	0	0	0	0	31
23:00	0	6	3	1	2	0	0	0	0	0	0	0	0	12
Total	12	1694	605	64	345	16	13	43	39	3	0	0	3	2837
Percent	0.4%	59.7%	21.3%	2.3%	12.2%	0.6%	0.5%	1.5%	1.4%	0.1%	0.0%	0.0%	0.1%	
AM Peak	08:00	07:00	07:00	08:00	07:00	06:00	11:00	07:00	09:00	03:00			09:00	07:00
Vol.	3	162	61	6	38	2	3	6	6	1			2	277
PM Peak	14:00	14:00	13:00	13:00	12:00	13:00	12:00	13:00	12:00					13:00
Vol.	2	126	47	8	29	2	4	7	4					207

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/21/22	0	0	1	0	2	0	0	0	0	0	0	0	0	3
01:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
02:00	0	6	2	0	1	0	0	0	0	0	0	0	0	9
03:00	0	8	3	1	2	0	0	0	0	0	0	0	0	14
04:00	0	23	11	2	2	0	1	0	0	0	0	0	0	39
05:00	1	40	10	2	6	1	0	0	0	0	0	0	0	60
06:00	0	66	19	5	8	2	0	0	2	0	0	0	1	103
07:00	1	67	29	1	14	0	1	0	0	0	0	0	0	113
08:00	2	104	40	4	16	1	0	0	0	0	0	0	0	167
09:00	1	115	36	9	11	1	0	1	0	0	0	0	0	174
10:00	3	135	40	5	15	0	0	2	2	0	0	0	0	202
11:00	0	109	34	5	21	1	0	3	2	0	0	0	0	175
12 PM	0	114	55	3	14	1	0	1	0	0	0	0	0	188
13:00	1	93	27	7	10	1	0	3	2	0	0	0	0	144
14:00	3	77	24	3	11	1	0	1	1	0	0	0	0	121
15:00	0	70	41	3	14	1	0	2	3	0	0	0	0	134
16:00	0	94	32	2	14	0	0	0	0	0	0	0	0	142
17:00	0	64	28	1	9	1	0	0	0	0	0	0	0	103
18:00	1	64	18	0	10	0	0	0	1	0	0	0	0	94
19:00	2	47	13	0	2	0	0	1	1	1	0	0	0	67
20:00	0	44	15	0	6	0	0	0	0	0	0	0	0	65
21:00	0	30	5	0	3	1	0	0	0	0	0	0	0	39
22:00	0	25	7	0	4	0	0	0	0	1	0	0	0	37
23:00	0	14	3	0	3	0	0	0	0	0	0	0	0	20
Total	15	1415	495	53	198	12	2	14	14	2	0	0	1	2221
Percent	0.7%	63.7%	22.3%	2.4%	8.9%	0.5%	0.1%	0.6%	0.6%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	10:00	08:00	09:00	11:00	06:00	04:00	11:00	06:00				06:00	10:00
Vol.	3	135	40	9	21	2	1	3	2				1	202
PM Peak	14:00	12:00	12:00	13:00	12:00	12:00		13:00	15:00	19:00				12:00
Vol.	3	114	55	7	14	1		3	3	1				188

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/22/22	0	5	2	0	0	0	0	0	0	0	0	0	0	7
01:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
02:00	0	3	1	0	0	0	0	1	0	0	0	0	0	5
03:00	0	2	1	1	1	0	0	0	1	0	0	0	0	6
04:00	0	17	6	1	1	0	0	0	0	0	0	0	0	25
05:00	0	18	6	0	6	0	0	0	0	0	0	0	0	30
06:00	0	34	11	1	4	0	0	0	1	0	0	0	0	51
07:00	1	49	16	1	7	0	1	2	0	0	0	0	0	77
08:00	0	55	23	1	15	0	0	3	1	0	0	0	0	98
09:00	0	92	30	3	15	0	0	1	0	0	0	0	0	141
10:00	0	94	29	3	18	0	0	2	2	0	0	0	0	148
11:00	0	84	24	1	17	0	0	2	0	0	0	0	0	128
12 PM	0	74	35	3	12	1	0	2	0	0	0	0	0	127
13:00	1	69	28	1	13	0	0	0	2	0	0	0	0	114
14:00	0	77	24	2	17	0	0	2	0	0	0	0	0	122
15:00	1	71	29	3	15	1	0	1	0	0	0	0	0	121
16:00	4	57	20	1	12	0	0	2	0	0	0	0	0	96
17:00	1	60	21	1	12	0	0	2	0	0	0	0	0	97
18:00	1	42	19	0	6	0	0	3	0	0	0	0	0	71
19:00	0	37	9	0	3	0	0	0	1	0	0	0	0	50
20:00	0	24	8	0	4	1	0	0	0	0	0	0	0	37
21:00	0	26	8	0	2	0	0	0	0	0	0	0	0	36
22:00	0	13	5	0	1	0	0	0	0	0	0	0	0	19
23:00	0	8	1	0	1	0	0	0	0	0	0	0	0	10
Total	9	1016	357	23	182	3	1	23	8	0	0	0	0	1622
Percent	0.6%	62.6%	22.0%	1.4%	11.2%	0.2%	0.1%	1.4%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	10:00	09:00	09:00	10:00			07:00	08:00	10:00				10:00
Vol.	1	94	30	3	18		1	3	2					148
PM Peak	16:00	14:00	12:00	12:00	14:00	12:00		18:00	13:00					12:00
Vol.	4	77	35	3	17	1		3	2					127

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/23/22	0	4	1	0	0	0	0	0	0	0	0	0	0	5
01:00	0	1	1	0	0	0	0	1	0	0	0	0	0	3
02:00	0	4	1	1	0	0	0	0	0	0	0	0	0	6
03:00	0	4	3	1	3	0	0	0	1	0	0	0	0	12
04:00	0	26	11	0	4	0	0	0	2	0	0	0	0	43
05:00	1	50	18	0	12	0	0	1	0	0	0	0	0	82
06:00	0	99	39	0	22	1	0	3	1	0	0	0	0	165
07:00	2	179	63	3	46	1	0	2	0	0	1	0	0	297
08:00	0	133	46	3	25	0	0	6	1	0	0	0	0	214
09:00	0	64	30	10	17	0	0	5	1	0	0	0	0	127
10:00	0	57	43	9	25	2	0	2	0	0	0	0	0	138
11:00	0	73	35	8	18	3	2	3	2	0	0	0	0	144
12 PM	2	82	34	7	25	2	1	2	1	0	0	0	0	156
13:00	0	59	22	4	28	2	2	5	1	0	0	0	0	123
14:00	0	89	23	5	26	0	1	3	2	0	0	0	0	149
15:00	1	97	43	7	23	0	0	3	3	0	0	0	0	177
16:00	0	88	35	1	15	0	0	4	0	0	0	0	1	144
17:00	0	104	37	2	15	0	0	4	0	0	0	0	0	162
18:00	0	64	28	3	11	1	0	3	1	0	0	0	0	111
19:00	0	43	22	0	8	0	0	0	0	0	0	0	0	73
20:00	1	29	15	1	3	1	0	0	0	0	0	0	0	50
21:00	0	25	5	1	0	0	0	0	0	0	0	0	0	31
22:00	0	15	7	0	1	1	0	0	0	0	0	0	0	24
23:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
Total	7	1394	563	66	327	14	6	47	16	0	1	0	1	2442
Percent	0.3%	57.1%	23.1%	2.7%	13.4%	0.6%	0.2%	1.9%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	09:00	07:00	11:00	11:00	08:00	04:00		07:00			07:00
Vol.	2	179	63	10	46	3	2	6	2		1			297
PM Peak	12:00	17:00	15:00	12:00	13:00	12:00	13:00	13:00	15:00				16:00	15:00
Vol.	2	104	43	7	28	2	2	5	3				1	177

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/24/22	0	1	1	0	0	0	1	0	0	0	0	0	0	3
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
02:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
03:00	0	4	5	0	3	0	0	0	1	0	0	0	1	14
04:00	0	27	15	1	4	1	0	0	0	0	0	0	0	48
05:00	0	36	16	1	8	0	0	0	0	1	0	0	0	62
06:00	1	109	27	3	16	0	0	2	1	1	0	0	0	160
07:00	2	171	77	5	34	5	0	1	1	0	0	0	0	296
08:00	1	129	48	5	16	0	1	2	0	0	0	0	0	202
09:00	1	82	19	7	20	2	1	2	2	1	0	0	0	137
10:00	0	62	22	5	25	0	3	0	1	1	0	1	0	120
11:00	1	62	39	2	13	2	1	6	3	0	0	0	0	129
12 PM	1	48	28	3	14	2	1	2	2	0	0	0	0	101
13:00	0	71	35	5	16	3	0	3	1	0	0	1	1	136
14:00	0	82	32	8	24	4	0	2	2	0	0	0	0	154
15:00	0	95	47	3	30	3	0	3	2	0	0	0	0	183
16:00	0	86	33	3	17	0	0	2	3	0	0	0	0	144
17:00	1	110	54	1	19	1	0	3	2	0	0	0	0	191
18:00	0	72	34	2	9	0	0	2	0	0	0	0	0	119
19:00	0	40	15	2	9	1	1	1	0	0	0	0	0	69
20:00	0	35	13	0	7	0	0	0	0	0	0	0	0	55
21:00	0	14	8	0	3	0	0	0	0	0	0	0	0	25
22:00	0	9	4	0	2	0	0	0	0	0	0	0	0	15
23:00	0	5	5	0	0	0	0	0	0	0	0	0	0	10
Total	8	1351	578	56	290	25	9	31	21	4	0	2	2	2377
Percent	0.3%	56.8%	24.3%	2.4%	12.2%	1.1%	0.4%	1.3%	0.9%	0.2%	0.0%	0.1%	0.1%	
AM Peak	07:00	07:00	07:00	09:00	07:00	07:00	10:00	11:00	11:00	05:00		10:00	03:00	07:00
Vol.	2	171	77	7	34	5	3	6	3	1		1	1	296
PM Peak	12:00	17:00	17:00	14:00	15:00	14:00	12:00	13:00	16:00			13:00	13:00	17:00
Vol.	1	110	54	8	30	4	1	3	3			1	1	191

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
05/25/22	0	2	1	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
03:00	0	3	4	0	3	0	0	0	0	0	0	0	0	10
04:00	0	26	10	2	5	1	0	0	2	0	0	0	0	46
05:00	1	48	27	8	9	2	0	1	1	0	0	0	0	97
06:00	1	109	35	4	21	1	0	2	2	0	0	0	1	176
07:00	4	194	63	5	35	3	0	11	0	0	0	0	0	315
08:00	0	146	34	7	27	3	2	4	5	0	0	0	0	228
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	6	530	176	26	102	10	2	18	10	0	0	0	1	881
Percent	0.7%	60.2%	20.0%	3.0%	11.6%	1.1%	0.2%	2.0%	1.1%	0.0%	0.0%	0.0%	0.1%	
AM Peak	07:00	07:00	07:00	05:00	07:00	07:00	08:00	07:00	08:00				06:00	07:00
Vol.	4	194	63	8	35	3	2	11	5				1	315
PM Peak														
Vol.														
Grand Total	88	11328	4270	464	2250	123	53	303	178	12	1	2	12	19084
Percent	0.5%	59.4%	22.4%	2.4%	11.8%	0.6%	0.3%	1.6%	0.9%	0.1%	0.0%	0.0%	0.1%	

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
Counter: 22684

Site Code: 1
Station ID:
A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/02/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	0	103	36	12	18	5	1	6	2	0	0	0	0	183
10:00	3	89	39	5	16	5	1	3	1	0	0	0	0	162
11:00	4	121	36	5	26	4	3	3	7	0	0	0	0	209
12 PM	2	134	44	5	28	6	1	4	4	0	0	0	0	228
13:00	1	129	45	2	22	7	0	4	4	0	0	0	0	214
14:00	2	138	63	6	25	4	0	4	3	0	0	0	0	245
15:00	2	199	66	7	25	0	1	5	2	0	0	0	0	307
16:00	6	222	62	7	34	1	1	1	2	0	0	0	0	336
17:00	4	209	71	6	25	1	1	3	0	0	0	0	0	320
18:00	1	159	43	1	20	0	0	2	2	0	0	0	0	228
19:00	2	92	27	0	11	0	0	0	0	0	0	0	0	132
20:00	3	76	19	2	7	1	0	1	1	0	0	0	1	111
21:00	0	57	16	0	2	0	0	0	3	0	0	0	0	78
22:00	0	45	10	0	5	0	0	0	1	0	0	0	0	61
23:00	0	16	4	0	0	1	0	0	0	0	0	0	0	21
Total	30	1789	581	58	264	35	9	36	32	0	0	0	1	2835
Percent	1.1%	63.1%	20.5%	2.0%	9.3%	1.2%	0.3%	1.3%	1.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	09:00	11:00	09:00	11:00	09:00	11:00					11:00
Vol.	4	121	39	12	26	5	3	6	7					209
PM Peak	16:00	16:00	17:00	15:00	16:00	13:00	12:00	15:00	12:00				20:00	16:00
Vol.	6	222	71	7	34	7	1	5	4				1	336

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/03/22	0	9	0	0	0	0	0	0	0	0	0	0	0	9
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	9	0	0	1	0	0	0	0	0	0	0	0	10
03:00	0	11	4	0	2	1	0	0	0	0	0	0	0	18
04:00	0	30	10	1	1	1	0	0	0	0	0	0	0	43
05:00	1	41	21	2	6	2	0	0	3	0	0	0	0	76
06:00	2	107	29	4	19	0	1	6	3	0	0	0	0	171
07:00	6	200	70	7	25	4	3	4	1	0	0	0	0	320
08:00	1	134	46	3	16	1	7	8	5	0	0	0	0	221
09:00	0	107	42	4	9	7	1	3	3	0	0	0	0	176
10:00	3	103	42	5	21	3	1	2	4	0	0	0	0	184
11:00	7	139	62	15	17	2	3	3	4	0	0	0	0	252
12 PM	6	192	52	6	26	4	0	6	1	0	0	0	0	293
13:00	1	158	64	5	22	3	2	4	1	0	0	0	0	260
14:00	0	168	51	8	32	4	1	7	2	0	0	0	0	273
15:00	4	233	59	5	32	0	0	0	1	0	0	0	0	334
16:00	9	272	61	5	23	2	0	6	3	0	0	0	0	381
17:00	6	207	53	2	21	1	0	0	0	0	0	0	0	290
18:00	4	184	50	2	21	0	0	2	2	0	0	0	0	265
19:00	3	122	32	1	9	0	0	1	1	0	0	0	0	169
20:00	4	89	30	0	9	0	0	1	0	0	0	0	0	133
21:00	1	98	22	1	3	0	0	2	0	0	0	0	0	127
22:00	0	54	10	0	3	0	0	0	0	0	0	0	0	67
23:00	0	21	8	0	2	1	0	1	0	0	0	0	0	33
Total	58	2690	818	76	320	36	19	56	34	0	0	0	0	4107
Percent	1.4%	65.5%	19.9%	1.9%	7.8%	0.9%	0.5%	1.4%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	11:00	07:00	09:00	08:00	08:00	08:00					07:00
Vol.	7	200	70	15	25	7	7	8	5					320
PM Peak	16:00	16:00	13:00	14:00	14:00	12:00	13:00	14:00	16:00					16:00
Vol.	9	272	64	8	32	4	2	7	3					381

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/04/22	0	10	7	0	2	0	0	0	0	0	0	0	0	19
01:00	0	9	2	0	1	0	0	0	0	0	0	0	0	12
02:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
03:00	0	4	4	0	0	0	0	0	0	0	0	0	0	8
04:00	0	21	11	1	4	0	0	0	0	0	0	0	0	37
05:00	0	30	10	0	6	1	0	0	0	0	0	0	0	47
06:00	1	40	11	2	5	1	1	0	1	1	0	0	0	63
07:00	1	67	34	2	13	4	0	3	2	0	0	0	0	126
08:00	1	75	32	4	17	2	1	4	0	0	0	0	0	136
09:00	5	101	43	2	17	2	1	3	0	0	0	0	0	174
10:00	4	134	57	6	10	2	0	1	1	0	0	0	0	215
11:00	5	142	48	5	13	1	1	2	2	0	0	0	0	219
12 PM	6	164	39	5	19	3	1	3	0	0	0	0	0	240
13:00	3	164	41	1	15	1	0	2	1	0	0	0	0	228
14:00	6	159	53	3	14	0	0	2	0	0	0	0	0	237
15:00	2	149	42	0	16	1	0	0	1	0	0	0	0	211
16:00	0	150	48	0	10	0	0	2	1	0	0	0	0	211
17:00	8	155	43	0	11	0	0	2	3	0	0	0	0	222
18:00	3	143	28	1	9	0	0	1	1	0	0	0	0	186
19:00	5	90	21	0	8	1	0	2	2	0	0	0	0	129
20:00	0	82	18	0	4	0	0	0	0	0	0	0	0	104
21:00	0	62	19	0	6	0	0	0	1	0	0	0	0	88
22:00	2	48	7	0	2	0	0	0	0	0	0	0	0	59
23:00	0	42	11	0	2	0	0	0	0	0	0	0	0	55
Total	52	2050	629	32	204	19	5	27	16	1	0	0	0	3035
Percent	1.7%	67.5%	20.7%	1.1%	6.7%	0.6%	0.2%	0.9%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	10:00	10:00	08:00	07:00	06:00	08:00	07:00	06:00				11:00
Vol.	5	142	57	6	17	4	1	4	2	1				219
PM Peak	17:00	12:00	14:00	12:00	12:00	12:00	12:00	12:00	17:00					12:00
Vol.	8	164	53	5	19	3	1	3	3					240

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/05/22	1	17	5	0	1	0	0	0	0	0	0	0	0	24
01:00	1	13	4	0	0	0	0	0	0	0	0	0	0	18
02:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
03:00	0	11	4	0	0	0	0	0	0	0	0	0	0	15
04:00	0	14	4	0	0	1	0	0	1	0	0	0	0	20
05:00	0	18	12	1	3	1	0	0	0	0	0	0	0	35
06:00	1	30	9	1	2	1	0	1	1	0	0	0	0	46
07:00	0	47	19	1	6	0	1	2	0	0	0	0	0	76
08:00	0	64	21	0	6	1	0	0	0	0	0	0	0	92
09:00	2	87	25	0	12	0	0	0	0	0	0	0	0	126
10:00	4	108	29	3	10	2	0	2	0	0	0	0	0	158
11:00	5	131	34	0	12	0	0	0	0	0	0	0	0	182
12 PM	5	141	38	0	16	0	0	0	1	0	0	0	0	201
13:00	3	173	55	2	14	0	0	1	0	0	0	0	0	248
14:00	6	134	33	0	12	0	0	1	0	0	0	0	0	186
15:00	8	149	35	0	10	0	0	2	1	0	0	0	0	205
16:00	4	156	46	0	11	1	0	1	1	0	0	0	0	220
17:00	3	146	30	0	14	0	0	3	1	0	0	0	0	197
18:00	6	121	27	1	10	1	0	0	1	0	0	0	0	167
19:00	2	117	35	1	7	1	0	2	2	0	0	0	0	167
20:00	1	69	13	1	7	0	0	0	0	0	0	0	0	91
21:00	0	51	22	0	6	0	0	1	1	0	0	0	0	81
22:00	0	30	3	0	1	0	0	0	0	0	0	0	0	34
23:00	0	15	6	0	1	0	0	0	0	0	0	0	0	22
Total	52	1850	511	11	161	9	1	16	10	0	0	0	0	2621
Percent	2.0%	70.6%	19.5%	0.4%	6.1%	0.3%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	10:00	09:00	10:00	07:00	07:00	04:00					11:00
Vol.	5	131	34	3	12	2	1	2	1					182
PM Peak	15:00	13:00	13:00	13:00	12:00	16:00		17:00	19:00					13:00
Vol.	8	173	55	2	16	1		3	2					248

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/06/22	0	3	3	0	0	0	0	0	0	0	0	0	0	6
01:00	0	8	0	0	1	1	0	0	0	0	0	0	0	10
02:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
03:00	0	11	6	2	0	0	0	0	1	0	0	0	0	20
04:00	0	19	8	1	4	1	0	0	2	0	0	0	0	35
05:00	0	49	24	1	6	1	0	1	2	0	0	0	0	84
06:00	1	114	37	1	11	2	1	3	2	0	0	0	0	172
07:00	3	207	62	4	23	4	1	8	6	0	0	0	0	318
08:00	5	139	62	4	21	3	4	3	5	0	0	0	0	246
09:00	8	101	52	1	17	4	2	7	1	0	0	0	0	193
10:00	1	105	30	7	30	6	2	5	4	0	0	0	0	190
11:00	2	109	47	3	22	7	1	5	1	0	0	0	0	197
12 PM	6	135	38	7	25	4	0	5	1	0	0	0	0	221
13:00	3	141	53	2	24	4	0	3	1	0	0	0	0	231
14:00	2	162	65	13	15	6	0	4	0	0	0	0	0	267
15:00	3	186	75	9	19	2	0	7	4	0	0	0	1	306
16:00	3	184	55	4	15	2	0	1	1	0	0	0	0	265
17:00	4	192	54	3	14	0	0	3	1	0	0	0	0	271
18:00	4	151	42	2	13	0	0	1	0	0	0	0	0	213
19:00	5	80	28	0	2	0	0	0	2	0	0	0	0	117
20:00	1	81	23	1	5	0	0	1	1	0	0	0	0	113
21:00	0	61	22	0	4	0	0	0	0	0	0	0	0	87
22:00	0	36	6	0	1	0	0	0	0	0	0	0	0	43
23:00	0	17	2	0	0	0	0	0	0	0	0	0	0	19
Total	51	2296	794	65	272	47	11	57	35	0	0	0	1	3629
Percent	1.4%	63.3%	21.9%	1.8%	7.5%	1.3%	0.3%	1.6%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	07:00	10:00	10:00	11:00	08:00	07:00	07:00					07:00
Vol.	8	207	62	7	30	7	4	8	6					318
PM Peak	12:00	17:00	15:00	14:00	12:00	14:00		15:00	15:00				15:00	15:00
Vol.	6	192	75	13	25	6		7	4				1	306

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1

Station ID:

A to B NB

Latitude: 39' 84675.0000 North

Longitude: 75' 76648.0000 West

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/07/22	0	9	2	0	1	0	0	1	0	0	0	0	0	13
01:00	1	2	3	0	1	0	0	0	0	0	0	0	0	7
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
03:00	0	5	8	0	1	0	0	0	0	0	0	0	0	14
04:00	0	24	5	1	2	0	0	0	1	0	0	0	0	33
05:00	1	53	20	1	13	3	0	1	0	0	0	0	0	92
06:00	4	139	42	1	12	4	2	5	3	0	0	0	0	212
07:00	27	205	69	3	28	5	0	5	2	0	0	0	0	344
08:00	1	140	53	2	26	4	2	1	4	0	0	0	0	233
09:00	2	101	49	4	12	4	0	5	3	0	0	0	0	180
10:00	0	112	26	5	15	2	0	0	3	1	0	0	0	164
11:00	2	128	46	8	16	6	4	3	4	0	0	0	0	217
12 PM	2	104	43	9	18	3	0	4	0	0	0	0	0	183
13:00	6	112	42	6	19	4	0	3	3	0	0	0	0	195
14:00	3	162	50	6	22	4	1	6	1	0	0	0	0	255
15:00	0	195	67	7	23	3	0	3	3	0	0	0	0	301
16:00	1	227	61	3	31	1	0	0	0	0	0	0	0	324
17:00	2	240	48	2	14	1	0	4	2	0	0	0	0	313
18:00	7	167	37	2	13	1	0	1	1	0	0	0	0	229
19:00	0	117	27	1	10	0	0	2	5	0	0	0	0	162
20:00	0	71	20	1	4	1	0	1	1	0	0	0	0	99
21:00	0	71	21	0	5	0	0	0	0	0	0	0	0	97
22:00	0	55	10	0	1	0	0	0	0	0	0	0	0	66
23:00	0	15	2	0	0	0	0	0	0	0	0	0	0	17
Total	59	2462	752	62	287	46	9	45	36	1	0	0	0	3759
Percent	1.6%	65.5%	20.0%	1.6%	7.6%	1.2%	0.2%	1.2%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	11:00	07:00	11:00	11:00	06:00	08:00	10:00				07:00
Vol.	27	205	69	8	28	6	4	5	4	1				344
PM Peak	18:00	17:00	15:00	12:00	16:00	13:00	14:00	14:00	19:00					16:00
Vol.	7	240	67	9	31	4	1	6	5					324

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/08/22	0	12	2	0	0	0	0	0	0	0	0	0	0	14
01:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
02:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
03:00	0	3	3	1	0	0	0	0	0	0	0	0	0	7
04:00	0	25	9	1	3	1	0	0	1	0	0	0	0	40
05:00	0	59	25	0	8	1	0	1	2	0	0	0	0	96
06:00	1	144	42	6	14	1	1	3	0	0	0	0	0	212
07:00	2	219	61	7	19	6	0	10	3	0	0	0	0	327
08:00	2	152	48	2	18	2	1	6	2	0	0	0	0	233
09:00	1	90	34	4	16	4	1	7	2	0	0	0	0	159
10:00	5	102	38	5	27	3	2	5	2	0	0	0	0	189
11:00	0	115	37	8	14	4	1	3	2	0	0	0	0	184
12 PM	4	114	42	5	14	6	1	2	2	0	0	0	0	190
13:00	2	126	46	3	23	3	0	2	4	0	0	0	0	209
14:00	1	142	41	3	21	3	0	4	1	0	0	0	0	216
15:00	6	212	56	4	33	3	1	3	4	0	0	0	0	322
16:00	1	223	55	7	18	3	0	4	2	0	0	0	0	313
17:00	3	229	56	3	23	1	0	1	1	0	0	0	0	317
18:00	6	160	35	1	8	1	0	1	2	0	0	0	0	214
19:00	3	97	29	1	4	1	0	2	2	0	0	0	0	139
20:00	0	93	19	0	5	0	0	0	0	0	0	0	0	117
21:00	2	74	21	0	4	0	0	0	1	0	0	0	0	102
22:00	0	47	18	0	1	0	0	0	1	0	0	0	0	67
23:00	0	19	4	0	0	0	0	0	0	0	0	0	0	23
Total	39	2464	723	61	273	43	8	54	34	0	0	0	0	3699
Percent	1.1%	66.6%	19.5%	1.6%	7.4%	1.2%	0.2%	1.5%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	11:00	10:00	07:00	10:00	07:00	07:00					07:00
Vol.	5	219	61	8	27	6	2	10	3					327
PM Peak	15:00	17:00	15:00	16:00	15:00	12:00	12:00	14:00	13:00					15:00
Vol.	6	229	56	7	33	6	1	4	4					322

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/09/22	0	16	0	0	0	0	0	0	0	0	0	0	0	16
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
03:00	0	4	6	1	0	0	0	0	0	0	0	0	0	11
04:00	0	23	11	1	2	0	0	0	2	0	0	0	0	39
05:00	0	55	20	0	9	0	0	0	0	0	0	0	0	84
06:00	3	123	41	2	9	2	0	2	2	0	0	0	0	184
07:00	2	195	62	4	17	2	0	8	3	0	0	0	0	293
08:00	6	146	49	4	18	1	0	5	6	0	0	0	0	235
09:00	4	108	43	7	14	2	0	7	3	0	0	0	0	188
10:00	2	101	39	2	21	2	0	6	2	0	0	0	0	175
11:00	4	109	31	10	22	4	0	6	5	0	0	0	0	191
12 PM	2	114	36	5	19	2	1	8	2	0	0	0	0	189
13:00	4	124	54	2	16	3	0	3	7	0	0	0	0	213
14:00	3	140	46	4	27	3	2	5	2	0	0	0	0	232
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	30	1267	438	42	174	21	3	50	34	0	0	0	0	2059
Percent	1.5%	61.5%	21.3%	2.0%	8.5%	1.0%	0.1%	2.4%	1.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	11:00	11:00	11:00		07:00	08:00					07:00
Vol.	6	195	62	10	22	4		8	6					293
PM Peak	13:00	14:00	13:00	12:00	14:00	13:00	14:00	12:00	13:00					14:00
Vol.	4	140	54	5	27	3	2	8	7					232
Grand Total	371	16868	5246	407	1955	256	65	341	231	2	0	0	2	25744
Percent	1.4%	65.5%	20.4%	1.6%	7.6%	1.0%	0.3%	1.3%	0.9%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/02/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	2	73	38	5	24	4	0	2	1	0	0	0	0	149
10:00	3	77	37	2	25	3	0	0	1	0	0	0	0	148
11:00	7	83	35	7	18	4	0	2	0	0	0	0	0	156
12 PM	8	93	45	6	16	4	0	3	0	0	0	0	0	175
13:00	2	119	40	4	27	5	0	3	1	0	0	0	0	201
14:00	2	102	49	9	28	2	0	2	1	0	0	0	0	195
15:00	5	139	54	4	31	1	0	1	0	0	0	0	0	235
16:00	7	161	57	2	35	2	0	1	1	0	0	0	0	266
17:00	6	173	55	4	23	3	0	0	0	0	0	0	0	264
18:00	5	108	37	0	19	1	0	1	0	0	0	0	0	171
19:00	3	86	24	0	11	0	0	1	0	0	0	0	0	125
20:00	1	65	12	2	4	0	0	0	0	0	0	0	0	84
21:00	1	48	14	0	6	0	0	0	0	0	0	0	0	69
22:00	1	29	9	1	1	1	0	0	0	0	0	0	0	42
23:00	0	24	5	0	4	0	0	0	0	0	0	0	0	33
Total	53	1380	511	46	272	30	0	16	5	0	0	0	0	2313
Percent	2.3%	59.7%	22.1%	2.0%	11.8%	1.3%	0.0%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	09:00	11:00	10:00	09:00		09:00	09:00					11:00
Vol.	7	83	38	7	25	4		2	1					156
PM Peak	12:00	17:00	16:00	14:00	16:00	13:00		12:00	13:00					16:00
Vol.	8	173	57	9	35	5		3	1					266

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/03/22	0	7	1	0	0	0	0	0	0	0	0	0	0	8
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	5	1	0	1	1	0	0	0	0	0	0	0	8
03:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
04:00	1	16	10	0	1	1	0	0	0	0	0	0	0	29
05:00	0	30	10	0	2	1	0	0	0	0	0	0	0	43
06:00	1	63	25	2	16	2	0	0	0	0	0	0	0	109
07:00	4	88	34	1	27	0	0	0	0	0	0	0	0	154
08:00	3	82	36	9	24	0	0	1	0	0	0	0	0	155
09:00	6	72	42	8	26	3	0	2	1	0	0	0	0	160
10:00	4	83	37	2	18	1	0	1	1	0	0	0	0	147
11:00	3	103	41	5	31	3	1	3	2	0	0	0	0	192
12 PM	7	104	44	4	30	3	1	2	1	0	0	0	0	196
13:00	6	98	35	3	26	7	1	1	0	0	0	0	0	177
14:00	3	126	59	5	29	1	1	0	0	0	0	0	0	224
15:00	11	149	49	2	40	2	1	3	2	0	0	0	0	259
16:00	6	163	57	3	24	2	0	1	0	0	0	0	0	256
17:00	8	179	62	1	15	1	0	1	0	0	0	0	0	267
18:00	2	149	47	1	27	0	0	1	0	0	0	0	0	227
19:00	4	115	36	1	14	0	0	2	0	0	0	0	0	172
20:00	3	85	28	0	13	0	0	0	0	0	0	0	0	129
21:00	1	62	25	1	7	0	0	0	0	0	0	0	0	96
22:00	0	49	10	0	1	0	0	1	0	0	0	0	0	61
23:00	0	35	2	0	0	0	0	0	0	0	0	0	0	37
Total	73	1871	693	48	373	28	5	19	7	0	0	0	0	3117
Percent	2.3%	60.0%	22.2%	1.5%	12.0%	0.9%	0.2%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	09:00	08:00	11:00	09:00	11:00	11:00	11:00					11:00
Vol.	6	103	42	9	31	3	1	3	2					192
PM Peak	15:00	17:00	17:00	14:00	15:00	13:00	12:00	15:00	15:00					17:00
Vol.	11	179	62	5	40	7	1	3	2					267

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/04/22	0	14	4	0	0	0	0	0	0	0	0	0	0	18
01:00	0	15	2	0	1	0	0	0	0	0	0	0	0	18
02:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
03:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
04:00	0	19	4	0	2	0	0	0	0	0	0	0	0	25
05:00	0	19	6	0	5	0	0	0	0	0	0	0	0	30
06:00	1	40	10	1	3	1	0	0	0	0	0	0	0	56
07:00	1	40	24	2	8	1	0	0	0	0	0	0	0	76
08:00	5	75	23	5	10	3	0	0	0	0	0	0	0	121
09:00	4	65	28	1	21	0	0	1	0	0	0	0	0	120
10:00	8	103	40	1	16	3	0	0	0	0	0	0	0	171
11:00	2	128	44	1	23	0	0	2	0	0	0	0	0	200
12 PM	3	127	37	2	17	1	1	0	0	0	0	0	0	188
13:00	5	107	39	2	19	1	0	2	0	0	0	0	0	175
14:00	1	106	31	0	11	0	0	1	1	0	0	0	0	151
15:00	5	125	36	1	20	1	0	1	0	0	0	0	0	189
16:00	5	114	33	1	18	0	0	1	0	0	0	0	0	172
17:00	4	112	37	0	15	0	0	0	0	0	0	0	0	168
18:00	4	90	29	0	14	0	0	0	0	0	0	0	0	137
19:00	0	67	23	0	6	0	0	1	0	0	0	0	0	97
20:00	1	86	19	1	4	0	0	0	0	0	0	0	0	111
21:00	0	67	17	1	6	1	0	0	0	0	0	0	0	92
22:00	0	49	10	1	3	0	0	0	0	0	0	0	0	63
23:00	0	23	6	0	0	0	0	0	0	0	0	0	0	29
Total	49	1601	506	20	222	12	1	9	1	0	0	0	0	2421
Percent	2.0%	66.1%	20.9%	0.8%	9.2%	0.5%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00	08:00	11:00	08:00		11:00						11:00
Vol.	8	128	44	5	23	3		2						200
PM Peak	13:00	12:00	13:00	12:00	15:00	12:00	12:00	13:00	14:00					15:00
Vol.	5	127	39	2	20	1	1	2	1					189

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06/05/22	0	22	6	0	1	0	0	0	0	0	0	0	0	29
01:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	18	3	0	0	0	0	0	0	0	0	0	0	21
05:00	0	21	2	0	1	0	0	1	0	0	0	0	0	25
06:00	1	13	7	0	3	0	0	0	0	0	0	0	0	24
07:00	1	26	9	1	2	1	0	0	0	0	0	0	0	40
08:00	0	74	20	1	6	0	0	1	0	0	0	0	0	102
09:00	4	72	30	0	8	1	0	1	0	0	0	0	0	116
10:00	3	96	40	1	11	0	0	0	0	0	0	0	0	151
11:00	4	96	30	2	17	0	0	0	0	0	0	0	0	149
12 PM	4	117	46	0	16	1	0	0	0	0	0	0	0	184
13:00	4	126	37	1	21	1	0	3	0	0	0	0	0	193
14:00	2	164	54	2	23	0	0	0	0	0	0	0	0	245
15:00	2	118	53	0	22	0	0	0	0	0	0	0	0	195
16:00	4	111	27	0	15	1	0	0	0	0	0	0	0	158
17:00	4	109	31	0	19	0	0	0	0	0	0	0	0	163
18:00	5	61	31	0	9	1	0	0	0	0	0	0	0	107
19:00	3	85	19	0	9	0	0	0	0	0	0	0	0	116
20:00	2	57	16	1	4	1	0	0	0	0	0	0	0	81
21:00	0	55	19	0	6	0	0	0	0	0	0	0	0	80
22:00	0	22	7	0	0	0	0	0	0	0	0	0	0	29
23:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
Total	43	1490	492	9	193	7	0	6	0	0	0	0	0	2240
Percent	1.9%	66.5%	22.0%	0.4%	8.6%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	10:00	10:00	11:00	11:00	07:00		05:00						10:00
Vol.	4	96	40	2	17	1		1						151
PM Peak	18:00	14:00	14:00	14:00	14:00	12:00		13:00						14:00
Vol.	5	164	54	2	23	1		3						245

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Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/06/22	0	4	2	0	0	0	0	0	0	0	0	0	0	6
01:00	0	7	2	0	1	1	0	0	0	0	0	0	0	11
02:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
03:00	0	4	1	1	1	0	0	0	0	0	0	0	0	7
04:00	0	19	7	0	1	0	0	0	0	0	0	0	0	27
05:00	1	26	10	1	5	2	0	0	0	0	0	0	0	45
06:00	1	73	20	2	10	2	0	0	0	0	0	0	0	108
07:00	6	124	38	5	15	0	0	2	1	0	0	0	0	191
08:00	4	113	40	6	16	4	1	2	1	0	0	0	0	187
09:00	3	63	32	2	18	1	2	0	0	0	0	0	0	121
10:00	1	56	36	8	21	5	0	0	0	0	0	0	0	127
11:00	2	82	36	6	26	4	0	2	0	0	0	0	0	158
12 PM	8	95	49	6	35	7	0	1	2	0	0	0	0	203
13:00	7	128	43	9	31	4	1	0	1	0	0	0	0	224
14:00	6	134	47	7	24	1	2	1	0	0	0	0	0	222
15:00	5	121	42	5	32	5	2	2	0	0	0	0	0	214
16:00	6	179	46	3	32	0	2	2	0	0	0	0	0	270
17:00	2	173	36	2	25	0	0	2	0	0	0	0	0	240
18:00	3	88	30	0	16	1	0	0	0	0	0	0	0	138
19:00	2	83	35	0	14	0	0	2	0	0	0	0	0	136
20:00	1	79	19	0	10	0	0	1	0	0	0	0	0	110
21:00	2	28	12	0	4	0	0	0	0	0	0	0	0	46
22:00	0	25	5	0	3	0	0	0	0	0	0	0	0	33
23:00	1	11	1	0	0	1	0	0	0	0	0	0	0	14
Total	61	1717	591	63	340	38	10	17	5	0	0	0	0	2842
Percent	2.1%	60.4%	20.8%	2.2%	12.0%	1.3%	0.4%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	10:00	11:00	10:00	09:00	07:00	07:00					07:00
Vol.	6	124	40	8	26	5	2	2	1					191
PM Peak	12:00	16:00	12:00	13:00	12:00	12:00	14:00	15:00	12:00					16:00
Vol.	8	179	49	9	35	7	2	2	2					270

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06/07/22	0	4	1	0	0	0	0	0	0	0	0	0	0	5
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
03:00	0	9	1	0	2	0	0	0	0	0	0	0	0	12
04:00	0	24	7	1	1	0	0	0	0	0	0	0	0	33
05:00	0	30	13	0	6	3	0	0	1	0	0	0	0	53
06:00	4	93	17	2	4	4	0	1	0	0	0	0	0	125
07:00	5	122	47	3	21	1	1	3	0	0	0	0	0	203
08:00	5	86	44	5	20	2	1	1	2	0	0	0	0	166
09:00	6	78	32	3	25	4	0	0	0	0	0	0	0	148
10:00	3	73	38	8	22	2	1	0	1	0	0	0	0	148
11:00	3	83	35	8	14	1	1	0	2	0	0	0	0	147
12 PM	6	93	39	4	18	3	0	0	0	0	0	0	0	163
13:00	3	97	38	4	20	5	0	1	3	0	0	0	0	171
14:00	2	129	51	3	30	2	3	1	1	0	0	0	0	222
15:00	6	142	55	1	33	2	2	1	0	0	0	0	0	242
16:00	7	154	54	2	26	0	2	1	0	0	0	0	0	246
17:00	5	180	53	2	16	1	0	3	0	0	0	0	0	260
18:00	5	106	37	0	16	1	0	2	0	0	0	0	0	167
19:00	2	91	33	2	12	1	0	0	0	0	0	0	0	141
20:00	1	54	18	1	10	0	0	0	0	0	0	0	0	84
21:00	1	52	10	0	6	0	0	0	0	0	0	0	0	69
22:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
23:00	0	17	2	0	2	0	0	0	0	0	0	0	0	21
Total	64	1740	628	49	304	32	11	14	10	0	0	0	0	2852
Percent	2.2%	61.0%	22.0%	1.7%	10.7%	1.1%	0.4%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	07:00	10:00	09:00	06:00	07:00	07:00	08:00					07:00
Vol.	6	122	47	8	25	4	1	3	2					203
PM Peak	16:00	17:00	15:00	12:00	15:00	13:00	14:00	17:00	13:00					17:00
Vol.	7	180	55	4	33	5	3	3	3					260

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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/08/22	0	10	2	0	0	0	0	0	0	0	0	0	0	12
01:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4
02:00	0	6	0	0	1	0	0	0	0	0	0	0	0	7
03:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	17	7	0	0	0	0	0	0	0	0	0	0	24
05:00	0	25	9	2	2	0	0	0	0	0	0	0	0	38
06:00	2	69	26	3	20	1	0	0	0	0	0	0	0	121
07:00	6	105	37	4	34	1	0	0	0	0	0	0	0	187
08:00	5	85	56	9	26	2	0	2	0	0	0	0	0	185
09:00	7	82	38	4	21	2	1	0	1	0	0	0	0	156
10:00	5	65	37	4	20	3	0	0	0	0	0	0	0	134
11:00	5	76	29	3	37	4	0	2	0	0	0	0	0	156
12 PM	10	96	50	8	25	3	0	0	0	0	0	0	0	192
13:00	7	84	38	2	28	5	0	0	1	0	0	0	0	165
14:00	1	126	42	5	24	1	2	2	0	0	0	0	0	203
15:00	11	125	56	4	34	3	1	0	2	0	0	0	0	236
16:00	8	174	58	2	28	3	0	3	0	0	0	0	0	276
17:00	2	183	45	4	13	1	0	1	0	0	0	0	0	249
18:00	3	98	35	2	19	0	0	0	0	0	0	0	0	157
19:00	2	90	31	2	12	0	0	1	0	0	0	0	0	138
20:00	1	78	23	2	12	0	0	0	0	0	0	0	0	116
21:00	1	72	16	0	3	0	0	1	0	0	0	0	0	93
22:00	0	31	8	0	1	0	0	0	0	0	0	0	0	40
23:00	0	24	0	0	0	0	0	0	0	0	0	0	0	24
Total	76	1728	644	60	361	29	4	12	4	0	0	0	0	2918
Percent	2.6%	59.2%	22.1%	2.1%	12.4%	1.0%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	08:00	08:00	11:00	11:00	09:00	08:00	09:00					07:00
Vol.	7	105	56	9	37	4	1	2	1					187
PM Peak	15:00	17:00	16:00	12:00	15:00	13:00	14:00	16:00	15:00					16:00
Vol.	11	183	58	8	34	5	2	3	2					276

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 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1

Station ID:

A to B NB

Latitude: 39' 84675.0000 North

Longitude: 75' 76648.0000 West

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/09/22	0	6	3	0	0	0	0	0	0	0	0	0	0	9
01:00	0	7	1	1	0	0	0	0	0	0	0	0	0	9
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	8	1	1	0	0	0	0	0	0	0	0	0	10
04:00	0	22	7	0	0	0	0	0	0	0	0	0	0	29
05:00	0	24	7	0	8	0	0	0	0	0	0	0	0	39
06:00	2	64	16	5	16	1	0	0	0	0	0	0	0	104
07:00	6	113	35	3	19	0	0	0	0	0	0	0	0	176
08:00	7	91	48	6	24	2	0	1	0	0	0	0	0	179
09:00	4	75	37	7	25	5	0	1	0	0	0	0	0	154
10:00	5	75	33	5	18	3	0	2	1	0	0	0	0	142
11:00	5	93	41	4	27	2	0	1	0	0	0	0	0	173
12 PM	3	115	41	3	25	3	1	1	0	0	0	0	0	192
13:00	6	103	45	6	23	2	0	2	0	0	0	0	0	187
14:00	5	120	30	5	12	3	0	1	0	0	0	0	0	176
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	43	920	345	46	197	21	1	9	1	0	0	0	0	1583
Percent	2.7%	58.1%	21.8%	2.9%	12.4%	1.3%	0.1%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	09:00	11:00	09:00		10:00	10:00					08:00
Vol.	7	113	48	7	27	5		2	1					179
PM Peak	13:00	14:00	13:00	13:00	12:00	12:00	12:00	13:00						12:00
Vol.	6	120	45	6	25	3	1	2						192
Grand Total	462	12447	4410	341	2262	197	32	102	33	0	0	0	0	20286
Percent	2.3%	61.4%	21.7%	1.7%	11.2%	1.0%	0.2%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

Start Time	Mon 5/16/2022	Tue 5/17/2022	Wed 5/18/2022	Thu 5/19/2022	Fri 5/20/2022	Average Day	Sat 5/21/2022	Sun 5/22/2022	Week Average			
12:00 AM	*	*	15	4	6	8	12	16	11 			
01:00	*	*	2	2	1	2	6	1	2 			
02:00	*	*	3	3	3	3	5	4	4 			
03:00	*	*	7	7	9	8	9	7	8 			
04:00	*	*	22	16	20	19	18	9	17 			
05:00	*	*	46	33	47	42	28	18	34 			
06:00	*	*	62	60	55	59	32	16	45 			
07:00	*	*	113	108	107	109	50	32	82 			
08:00	*	*	120	108	125	118	94	75	104 			
09:00	*	*	114	104	148	122	107	68	108 			
10:00	*	*	124	100	123	116	131	91	114 			
11:00	*	112	106	110	115	111	128	119	115 			
12:00 PM	*	151	131	155	155	148	162	130	147 			
01:00	*	129	135	125	192	145	129	155	144 			
02:00	*	136	158	152	194	160	164	148	159 			
03:00	*	201	239	216	236	223	171	141	201 			
04:00	*	261	251	235	225	243	172	127	212 			
05:00	*	242	233	226	208	227	141	125	196 			
06:00	*	148	162	156	112	144	95	71	124 			
07:00	*	101	90	109	87	97	76	53	86 			
08:00	*	73	83	129	70	89	70	55	80 			
09:00	*	49	46	75	62	58	46	34	52 			
10:00	*	18	22	25	22	22	30	12	22 			
11:00	*	12	20	17	18	17	23	14	17 			
Day Total	0	1633	2304	2275	2340	2290	1899	1521	2084			
% Avg. WkDay	0.0%	71.3%	100.6%	99.3%	102.2%							
% Avg. Week	0.0%	78.4%	110.6%	109.2%	112.3%	109.9%	91.1%	73.0%				
AM Peak	-	11:00	10:00	11:00	09:00	-	09:00	-	10:00	11:00	-	-
Vol.	-	112	124	110	148	-	122	-	131	119	-	115
PM Peak	-	16:00	16:00	16:00	15:00	-	16:00	-	16:00	13:00	-	16:00
Vol.	-	261	251	235	236	-	243	-	172	155	-	212

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
 Location: 250 ft E of Newark Rd
 Counter: 37014

Site Code: 2
 Station ID:
 SB On Ramp
 Latitude: 39' 84755.0000 North
 Longitude: 75' 76582.0000 West

Start Time	Mon 5/23/2022	Tue 5/24/2022	Wed 5/25/2022	Thu 5/26/2022	Fri 5/27/2022	Average Day	Sat 5/28/2022	Sun 5/29/2022	Week Average
12:00 AM	3	6	8	*	*	6	*	*	6
01:00	2	2	3	*	*	2	*	*	2
02:00	2	7	4	*	*	4	*	*	4
03:00	4	5	8	*	*	6	*	*	6
04:00	18	26	14	*	*	19	*	*	19
05:00	34	45	47	*	*	42	*	*	42
06:00	60	63	67	*	*	63	*	*	63
07:00	108	122	134	*	*	121	*	*	121
08:00	121	105	109	*	*	112	*	*	112
09:00	96	101	*	*	*	98	*	*	98
10:00	111	89	*	*	*	100	*	*	100
11:00	129	105	*	*	*	117	*	*	117
12:00 PM	132	117	*	*	*	124	*	*	124
01:00	111	139	*	*	*	125	*	*	125
02:00	155	128	*	*	*	142	*	*	142
03:00	220	209	*	*	*	214	*	*	214
04:00	251	230	*	*	*	240	*	*	240
05:00	228	238	*	*	*	233	*	*	233
06:00	161	147	*	*	*	154	*	*	154
07:00	102	101	*	*	*	102	*	*	102
08:00	56	73	*	*	*	64	*	*	64
09:00	50	60	*	*	*	55	*	*	55
10:00	24	27	*	*	*	26	*	*	26
11:00	13	20	*	*	*	16	*	*	16
Day Total	2191	2165	394	0	0	2185	0	0	2185
% Avg. WkDay	100.3%	99.1%	18.0%	0.0%	0.0%				
% Avg. Week	100.3%	99.1%	18.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	-	-	07:00	-	-	07:00
Vol.	129	122	134	-	-	121	-	-	121
PM Peak	16:00	17:00	-	-	-	16:00	-	-	16:00
Vol.	251	238	-	-	-	240	-	-	240

Grand Total	2191	3798	2698	2275	2340	4475	1899	1521	4269
ADT		ADT 2,117		AADT 2,117					

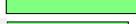
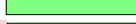
Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

Start Time	Mon 5/16/2022	Tue 5/17/2022	Wed 5/18/2022	Thu 5/19/2022	Fri 5/20/2022	Average Day	Sat 5/21/2022	Sun 5/22/2022	Week Average					
12:00 AM	*	*	6	7	8	7	19	13	11 					
01:00	*	*	2	6	3	4	10	3	5 					
02:00	*	*	2	2	6	3	6	2	4 					
03:00	*	*	4	2	4	3	3	6	4 					
04:00	*	*	14	14	14	14	9	8	12 					
05:00	*	*	17	15	16	16	12	10	14 					
06:00	*	*	37	35	38	37	23	11	29 					
07:00	*	*	88	83	84	85	71	21	69 					
08:00	*	*	62	79	83	75	88	63	75 					
09:00	*	*	66	78	59	68	91	57	70 					
10:00	*	*	62	87	79	76	101	73	80 					
11:00	*	75	79	77	114	86	109	79	89 					
12:00 PM	*	110	82	92	102	96	109	95	98 					
01:00	*	104	114	93	103	104	105	92	102 					
02:00	*	97	121	114	114	112	95	86	104 					
03:00	*	133	147	115	127	130	95	80	116 					
04:00	*	140	149	161	150	150	108	78	131 					
05:00	*	143	138	161	131	143	83	85	124 					
06:00	*	98	129	141	108	119	90	63	105 					
07:00	*	88	82	88	97	89	58	45	76 					
08:00	*	67	76	58	60	65	60	42	60 					
09:00	*	44	36	74	52	52	48	35	48 					
10:00	*	32	29	32	26	30	42	20	30 					
11:00	*	13	16	14	25	17	23	11	17 					
Day Total	0	1144	1558	1628	1603	1581	1458	1078	1473					
% Avg. WkDay	0.0%	72.4%	98.5%	103.0%	101.4%									
% Avg. Week	0.0%	77.7%	105.8%	110.5%	108.8%	107.3%	99.0%	73.2%						
AM Peak	-	11:00	07:00	10:00	11:00	-	11:00	-	11:00	-	-			
Vol.	-	75	88	87	114	-	86	-	109	79	-	-		
PM Peak	-	17:00	16:00	16:00	16:00	-	16:00	-	12:00	12:00	-	16:00	-	-
Vol.	-	143	149	161	150	-	150	-	109	95	-	131	-	-

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

Start Time	Mon 5/23/2022	Tue 5/24/2022	Wed 5/25/2022	Thu 5/26/2022	Fri 5/27/2022	Average Day	Sat 5/28/2022	Sun 5/29/2022	Week Average
12:00 AM	0	5	6	*	*	4	*	*	4
01:00	1	2	1	*	*	1	*	*	1
02:00	3	2	0	*	*	2	*	*	2
03:00	0	3	3	*	*	2	*	*	2
04:00	16	18	13	*	*	16	*	*	16
05:00	17	20	13	*	*	17	*	*	17
06:00	43	30	37	*	*	37	*	*	37
07:00	78	82	115	*	*	92	*	*	92
08:00	89	76	70	*	*	78	*	*	78
09:00	62	72	75	*	*	70	*	*	70
10:00	74	66	*	*	*	70	*	*	70
11:00	90	81	*	*	*	86	*	*	86
12:00 PM	87	93	*	*	*	90	*	*	90
01:00	95	102	*	*	*	98	*	*	98
02:00	100	116	*	*	*	108	*	*	108
03:00	116	126	*	*	*	121	*	*	121
04:00	132	124	*	*	*	128	*	*	128
05:00	155	135	*	*	*	145	*	*	145
06:00	87	102	*	*	*	94	*	*	94
07:00	81	78	*	*	*	80	*	*	80
08:00	46	53	*	*	*	50	*	*	50
09:00	39	40	*	*	*	40	*	*	40
10:00	21	23	*	*	*	22	*	*	22
11:00	12	17	*	*	*	14	*	*	14
Day Total	1444	1466	333	0	0	1465	0	0	1465
% Avg. WkDay	98.6%	100.1%	22.7%	0.0%	0.0%				
% Avg. Week	98.6%	100.1%	22.7%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	-	-	07:00	-	-	07:00
Vol.	90	82	115	-	-	92	-	-	92
PM Peak	17:00	17:00	-	-	-	17:00	-	-	17:00
Vol.	155	135	-	-	-	145	-	-	145

Grand Total	1444	2610	1891	1628	1603	3046	1458	1078	2938
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ADT	ADT 1,474	AADT 1,474
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Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

Start Time	Mon 5/16/2022	Tue 5/17/2022	Wed 5/18/2022	Thu 5/19/2022	Fri 5/20/2022	Average Day	Sat 5/21/2022	Sun 5/22/2022	Week Average					
12:00 AM	*	*	2	2	5	3	7	5	4					
01:00	*	*	1	2	0	1	6	3	2					
02:00	*	*	1	2	2	2	3	4	2					
03:00	*	*	7	8	5	7	5	5	6					
04:00	*	*	15	10	17	14	6	4	10					
05:00	*	*	31	32	23	29	14	5	21					
06:00	*	*	113	101	99	104	38	22	75					
07:00	*	*	116	134	119	123	53	33	91					
08:00	*	*	98	125	103	109	63	57	89					
09:00	*	*	79	80	93	84	77	62	78					
10:00	*	94	65	85	79	81	100	88	85					
11:00	*	53	74	84	81	73	74	72	73					
12:00 PM	*	99	79	71	83	83	93	102	88					
01:00	*	76	86	61	98	80	89	78	81					
02:00	*	75	84	96	78	83	87	90	85					
03:00	*	84	100	98	100	96	117	104	100					
04:00	*	96	119	99	86	100	113	96	102					
05:00	*	96	121	105	93	104	86	75	96					
06:00	*	61	81	59	68	67	55	64	65					
07:00	*	49	46	68	58	55	50	39	52					
08:00	*	48	23	55	42	42	41	31	40					
09:00	*	19	25	21	25	22	25	14	22					
10:00	*	11	5	9	21	12	26	6	13					
11:00	*	4	6	5	4	5	11	3	6					
Day Total	0	865	1377	1412	1382	1379	1239	1062	1286					
% Avg. WkDay	0.0%	62.7%	99.9%	102.4%	100.2%									
% Avg. Week	0.0%	67.3%	107.1%	109.8%	107.5%	107.2%	96.3%	82.6%						
AM Peak	-	10:00	07:00	07:00	07:00	-	07:00	-	10:00	10:00	-	07:00	-	-
Vol.	-	94	116	134	119	-	123	-	100	88	-	91	-	-
PM Peak	-	12:00	17:00	17:00	15:00	-	17:00	-	15:00	15:00	-	16:00	-	-
Vol.	-	99	121	105	100	-	104	-	117	104	-	102	-	-

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

Start Time	Mon 5/23/2022	Tue 5/24/2022	Wed 5/25/2022	Thu 5/26/2022	Fri 5/27/2022	Average Day	Sat 5/28/2022	Sun 5/29/2022	Week Average
12:00 AM	0	2	3	*	*	2	*	*	2
01:00	2	0	0	*	*	1	*	*	1
02:00	3	2	2	*	*	2	*	*	2
03:00	6	6	4	*	*	5	*	*	5
04:00	12	19	10	*	*	14	*	*	14
05:00	29	30	38	*	*	32	*	*	32
06:00	107	100	107	*	*	105	*	*	105
07:00	120	132	120	*	*	124	*	*	124
08:00	102	104	105	*	*	104	*	*	104
09:00	92	86	*	*	*	89	*	*	89
10:00	67	80	*	*	*	74	*	*	74
11:00	81	71	*	*	*	76	*	*	76
12:00 PM	67	94	*	*	*	80	*	*	80
01:00	81	94	*	*	*	88	*	*	88
02:00	59	88	*	*	*	74	*	*	74
03:00	106	94	*	*	*	100	*	*	100
04:00	97	98	*	*	*	98	*	*	98
05:00	90	91	*	*	*	90	*	*	90
06:00	77	63	*	*	*	70	*	*	70
07:00	36	51	*	*	*	44	*	*	44
08:00	30	26	*	*	*	28	*	*	28
09:00	17	21	*	*	*	19	*	*	19
10:00	5	9	*	*	*	7	*	*	7
11:00	2	2	*	*	*	2	*	*	2
Day Total	1288	1363	389	0	0	1328	0	0	1328
% Avg. WkDay	97.0%	102.6%	29.3%	0.0%	0.0%				
% Avg. Week	97.0%	102.6%	29.3%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	-	-	07:00	-	-	07:00
Vol.	120	132	120	-	-	124	-	-	124
PM Peak	15:00	16:00	-	-	-	15:00	-	-	15:00
Vol.	106	98	-	-	-	100	-	-	100

Grand Total	1288	2228	1766	1412	1382	2707	1239	1062	2614
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ADT	ADT 1,307	AADT 1,307
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Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

Start Time	Mon 5/16/2022	Tue 5/17/2022	Wed 5/18/2022	Thu 5/19/2022	Fri 5/20/2022	Average Day	Sat 5/21/2022	Sun 5/22/2022	Week Average					
12:00 AM	*	*	2	5	7	5	3	7	5					
01:00	*	*	2	3	3	3	8	6	4					
02:00	*	*	4	10	4	6	9	5	6					
03:00	*	*	12	17	13	14	14	6	12					
04:00	*	*	46	46	51	48	39	25	41					
05:00	*	*	81	88	67	79	60	30	65					
06:00	*	*	169	168	179	172	103	51	134					
07:00	*	*	326	268	277	290	113	77	212					
08:00	*	*	190	216	228	211	167	98	180					
09:00	*	*	124	141	149	138	174	141	146					
10:00	*	113	157	146	157	143	202	148	154					
11:00	*	139	140	142	174	149	175	128	150					
12:00 PM	*	138	139	167	202	162	188	127	160					
01:00	*	126	141	151	207	156	144	114	147					
02:00	*	161	142	157	203	166	121	122	151					
03:00	*	173	202	214	190	195	134	121	172					
04:00	*	165	164	180	169	170	142	96	153					
05:00	*	148	175	184	176	171	103	97	147					
06:00	*	135	122	136	165	140	94	71	120					
07:00	*	80	75	91	90	84	67	50	76					
08:00	*	61	52	61	50	56	65	37	54					
09:00	*	34	37	44	33	37	39	36	37					
10:00	*	26	19	21	31	24	37	19	26					
11:00	*	7	11	10	12	10	20	10	12					
Day Total	0	1506	2532	2666	2837	2629	2221	1622	2364					
% Avg. WkDay	0.0%	57.3%	96.3%	101.4%	107.9%									
% Avg. Week	0.0%	63.7%	107.1%	112.8%	120.0%	111.2%	94.0%	68.6%						
AM Peak	-	11:00	07:00	07:00	07:00	-	07:00	-	10:00	10:00	-	07:00	-	-
Vol.	-	139	326	268	277	-	290	-	202	148	-	212	-	-
PM Peak	-	15:00	15:00	15:00	13:00	-	15:00	-	12:00	12:00	-	15:00	-	-
Vol.	-	173	202	214	207	-	195	-	188	127	-	172	-	-

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

Start Time	Mon 5/23/2022	Tue 5/24/2022	Wed 5/25/2022	Thu 5/26/2022	Fri 5/27/2022	Average Day	Sat 5/28/2022	Sun 5/29/2022	Week Average
12:00 AM	5	3	3	*	*	4	*	*	4
01:00	3	1	1	*	*	2	*	*	2
02:00	6	3	5	*	*	5	*	*	5
03:00	12	14	10	*	*	12	*	*	12
04:00	43	48	46	*	*	46	*	*	46
05:00	82	62	97	*	*	80	*	*	80
06:00	165	160	176	*	*	167	*	*	167
07:00	297	296	315	*	*	303	*	*	303
08:00	214	202	228	*	*	215	*	*	215
09:00	127	137	*	*	*	132	*	*	132
10:00	138	120	*	*	*	129	*	*	129
11:00	144	129	*	*	*	136	*	*	136
12:00 PM	156	101	*	*	*	128	*	*	128
01:00	123	136	*	*	*	130	*	*	130
02:00	149	154	*	*	*	152	*	*	152
03:00	177	183	*	*	*	180	*	*	180
04:00	144	144	*	*	*	144	*	*	144
05:00	162	191	*	*	*	176	*	*	176
06:00	111	119	*	*	*	115	*	*	115
07:00	73	69	*	*	*	71	*	*	71
08:00	50	55	*	*	*	52	*	*	52
09:00	31	25	*	*	*	28	*	*	28
10:00	24	15	*	*	*	20	*	*	20
11:00	6	10	*	*	*	8	*	*	8
Day Total	2442	2377	881	0	0	2435	0	0	2435
% Avg. WkDay	100.3%	97.6%	36.2%	0.0%	0.0%				
% Avg. Week	100.3%	97.6%	36.2%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	-	-	07:00	-	-	07:00
Vol.	297	296	315	-	-	303	-	-	303
PM Peak	15:00	17:00	-	-	-	15:00	-	-	15:00
Vol.	177	191	-	-	-	180	-	-	180

Grand Total	2442	3883	3413	2666	2837	5064	2221	1622	4799
ADT	ADT 2,404		AADT 2,404						

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

Start Time	Thursday, June 2, 2022		Friday, June 3, 2022		Saturday, June 4, 2022		Sunday, June 5, 2022		Monday, June 6, 2022		Tuesday, June 7, 2022		Wednesday, June 8, 2022		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	9	8	19	18	24	29	6	6	13	5	14	12	14	13
01:00	*	*	2	3	12	18	18	10	10	11	7	4	4	4	9	8
02:00	*	*	10	8	9	6	10	4	5	4	9	9	5	7	8	6
03:00	*	*	18	8	8	8	15	5	20	7	14	12	7	5	14	8
04:00	*	*	43	29	37	25	20	21	35	27	33	33	40	24	35	26
05:00	*	*	76	43	47	30	35	25	84	45	92	53	96	38	72	39
06:00	*	*	171	109	63	56	46	24	172	108	212	125	212	121	146	90
07:00	*	*	320	154	126	76	76	40	318	191	344	203	327	187	252	142
08:00	*	*	221	155	136	121	92	102	246	187	233	166	233	185	194	153
09:00	183	149	176	160	174	120	126	116	193	121	180	148	159	156	170	139
10:00	162	148	184	147	215	171	158	151	190	127	164	148	189	134	180	147
11:00	209	156	252	192	219	200	182	149	197	158	217	147	184	156	209	165
12:00 PM	228	175	293	196	240	188	201	184	221	203	183	163	190	192	222	186
01:00	214	201	260	177	228	175	248	193	231	224	195	171	209	165	226	187
02:00	245	195	273	224	237	151	186	245	267	222	255	222	216	203	240	209
03:00	307	235	334	259	211	189	205	195	306	214	301	242	322	236	284	224
04:00	336	266	381	256	211	172	220	158	265	270	324	246	313	276	293	235
05:00	320	264	290	267	222	168	197	163	271	240	313	260	317	249	276	230
06:00	228	171	265	227	186	137	167	107	213	138	229	167	214	157	215	158
07:00	132	125	169	172	129	97	167	116	117	136	162	141	139	138	145	132
08:00	111	84	133	129	104	111	91	81	113	110	99	84	117	116	110	102
09:00	78	69	127	96	88	92	81	80	87	46	97	69	102	93	94	78
10:00	61	42	67	61	59	63	34	29	43	33	66	13	67	40	57	40
11:00	21	33	33	37	55	29	22	13	19	14	17	21	23	24	27	24
Total	2835	2313	4107	3117	3035	2421	2621	2240	3629	2842	3759	2852	3699	2918	3492	2741
Day	5148		7224		5456		4861		6471		6611		6617		6233	
AM Peak	11:00	11:00	07:00	11:00	11:00	11:00	11:00	10:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	11:00
Vol.	209	156	320	192	219	200	182	151	318	191	344	203	327	187	252	165
PM Peak	16:00	16:00	16:00	17:00	12:00	15:00	13:00	14:00	15:00	16:00	16:00	17:00	15:00	16:00	16:00	16:00
Vol.	336	266	381	267	240	189	248	245	306	270	324	260	322	276	293	235

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
Counter: 22684

Site Code: 1
Station ID:
A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

Start Time	Thursday, June 9, 2022		Friday, June 10, 2022		Saturday, June 11, 2022		Sunday, June 12, 2022		Monday, June 13, 2022		Tuesday, June 14, 2022		Wednesday, June 15, 2022		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	16	9	*	*	*	*	*	*	*	*	*	*	*	*	16	9
01:00	2	9	*	*	*	*	*	*	*	*	*	*	*	*	2	9
02:00	7	4	*	*	*	*	*	*	*	*	*	*	*	*	7	4
03:00	11	10	*	*	*	*	*	*	*	*	*	*	*	*	11	10
04:00	39	29	*	*	*	*	*	*	*	*	*	*	*	*	39	29
05:00	84	39	*	*	*	*	*	*	*	*	*	*	*	*	84	39
06:00	184	104	*	*	*	*	*	*	*	*	*	*	*	*	184	104
07:00	293	176	*	*	*	*	*	*	*	*	*	*	*	*	293	176
08:00	235	179	*	*	*	*	*	*	*	*	*	*	*	*	235	179
09:00	188	154	*	*	*	*	*	*	*	*	*	*	*	*	188	154
10:00	175	142	*	*	*	*	*	*	*	*	*	*	*	*	175	142
11:00	191	173	*	*	*	*	*	*	*	*	*	*	*	*	191	173
12:00 PM	189	192	*	*	*	*	*	*	*	*	*	*	*	*	189	192
01:00	213	187	*	*	*	*	*	*	*	*	*	*	*	*	213	187
02:00	232	176	*	*	*	*	*	*	*	*	*	*	*	*	232	176
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total Day	2059	1583	0	0	0	0	0	0	0	0	0	0	0	0	2059	1583
AM Peak	07:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	07:00	08:00
Vol.	293	179	-	-	-	-	-	-	-	-	-	-	-	-	293	179
PM Peak	14:00	12:00	-	-	-	-	-	-	-	-	-	-	-	-	14:00	12:00
Vol.	232	192	-	-	-	-	-	-	-	-	-	-	-	-	232	192

Comb. Total	8790	7224	5456	4861	6471	6611	6617	9875
ADT	ADT 6,253	AADT 6,253						

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
Location: 250 ft E of Newark Rd
Counter: 37014

Site Code: 2
Station ID:
SB On Ramp
Latitude: 39' 84755.0000 North
Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	8	2	8	48	36	9	0	1	0	0	0	0	0	0	112	34	37
12 PM	4	9	21	67	47	3	0	0	0	0	0	0	0	0	151	32	34
13:00	1	4	18	50	49	7	0	0	0	0	0	0	0	0	129	33	35
14:00	3	6	15	63	43	6	0	0	0	0	0	0	0	0	136	33	34
15:00	3	4	20	80	86	8	0	0	0	0	0	0	0	0	201	33	34
16:00	2	1	21	114	111	12	0	0	0	0	0	0	0	0	261	33	34
17:00	0	3	20	124	83	11	0	1	0	0	0	0	0	0	242	33	34
18:00	6	3	10	56	67	5	1	0	0	0	0	0	0	0	148	33	34
19:00	1	0	9	48	37	6	0	0	0	0	0	0	0	0	101	33	35
20:00	2	0	9	37	24	0	1	0	0	0	0	0	0	0	73	32	34
21:00	1	2	3	23	18	2	0	0	0	0	0	0	0	0	49	33	34
22:00	0	0	3	11	4	0	0	0	0	0	0	0	0	0	18	31	33
23:00	0	1	1	5	5	0	0	0	0	0	0	0	0	0	12	33	34
Total	31	35	158	726	610	69	2	2	0	0	0	0	0	0	1633		
Percent	1.9%	2.1%	9.7%	44.5%	37.4%	4.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00		11:00							11:00		
Vol.	8	2	8	48	36	9		1							112		
PM Peak	18:00	12:00	12:00	17:00	16:00	16:00	18:00	17:00							16:00		
Vol.	6	9	21	124	111	12	1	1							261		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
Location: 250 ft E of Newark Rd
Counter: 37014

Site Code: 2
Station ID:
SB On Ramp
Latitude: 39' 84755.0000 North
Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/18/22	1	0	2	3	9	0	0	0	0	0	0	0	0	0	15	33	34
01:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	29	29
02:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	27	29
03:00	0	1	1	3	2	0	0	0	0	0	0	0	0	0	7	32	34
04:00	0	2	4	15	1	0	0	0	0	0	0	0	0	0	22	29	29
05:00	1	2	10	23	10	0	0	0	0	0	0	0	0	0	46	31	33
06:00	2	0	7	30	22	1	0	0	0	0	0	0	0	0	62	33	34
07:00	4	0	14	44	50	1	0	0	0	0	0	0	0	0	113	33	34
08:00	5	2	12	42	54	6	0	0	0	0	0	0	0	0	121	33	34
09:00	0	5	10	58	33	7	1	0	0	0	0	0	0	0	114	33	36
10:00	1	3	19	64	33	4	0	0	0	0	0	0	0	0	124	32	34
11:00	3	1	19	42	40	1	0	0	0	0	0	0	0	0	106	33	34
12 PM	1	7	18	52	48	5	0	0	0	0	0	0	0	0	131	33	34
13:00	1	5	15	48	54	12	0	0	0	0	0	0	0	0	135	34	37
14:00	2	6	21	61	60	8	0	0	0	0	0	0	0	0	158	33	35
15:00	5	5	21	109	88	11	0	0	0	0	0	0	0	0	239	33	34
16:00	0	4	18	130	91	7	1	0	0	0	0	0	0	0	251	33	34
17:00	0	2	23	97	94	16	1	0	0	0	0	0	0	0	233	34	36
18:00	1	1	9	77	66	6	2	0	0	0	0	0	0	0	162	33	34
19:00	1	1	19	41	20	8	0	0	0	0	0	0	0	0	90	33	37
20:00	1	5	8	40	27	2	0	0	0	0	0	0	0	0	83	33	34
21:00	1	2	4	16	22	1	0	0	0	0	0	0	0	0	46	33	34
22:00	0	0	2	7	13	0	0	0	0	0	0	0	0	0	22	33	34
23:00	0	1	3	11	5	0	0	0	0	0	0	0	0	0	20	32	34
Total	30	55	261	1016	842	96	5	0	2305								
Percent	1.3%	2.4%	11.3%	44.1%	36.5%	4.2%	0.2%	0.0%									
AM Peak	08:00	09:00	10:00	10:00	08:00	09:00	09:00								10:00		
Vol.	5	5	19	64	54	7	1								124		
PM Peak	15:00	12:00	17:00	16:00	17:00	17:00	18:00								16:00		
Vol.	5	7	23	130	94	16	2								251		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
Location: 250 ft E of Newark Rd
Counter: 37014

Site Code: 2
Station ID:
SB On Ramp
Latitude: 39' 84755.0000 North
Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/19/22	0	0	0	1	2	1	0	0	0	0	0	0	0	0	4	37	39
01:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	33	34
02:00	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	24	24
03:00	0	1	2	3	1	0	0	0	0	0	0	0	0	0	7	29	33
04:00	0	2	5	8	1	0	0	0	0	0	0	0	0	0	16	29	30
05:00	1	1	6	18	7	0	0	0	0	0	0	0	0	0	33	31	33
06:00	0	0	8	34	17	0	1	0	0	0	0	0	0	0	60	32	34
07:00	1	6	11	46	41	3	0	0	0	0	0	0	0	0	108	33	34
08:00	0	2	15	58	32	1	0	0	0	0	0	0	0	0	108	32	34
09:00	0	5	14	51	31	3	0	0	0	0	0	0	0	0	104	32	34
10:00	3	1	14	50	29	3	0	0	0	0	0	0	0	0	100	32	34
11:00	0	5	17	44	38	6	0	0	0	0	0	0	0	0	110	33	35
12 PM	1	10	21	64	49	9	1	0	0	0	0	0	0	0	155	33	36
13:00	1	2	19	67	33	3	0	0	0	0	0	0	0	0	125	32	34
14:00	3	4	12	76	54	1	1	1	0	0	0	0	0	0	152	33	34
15:00	4	3	16	90	98	7	0	0	0	0	0	0	0	0	218	33	34
16:00	0	3	19	105	98	10	0	0	0	0	0	0	0	0	235	33	34
17:00	2	12	21	93	89	9	0	0	0	0	0	0	0	0	226	33	34
18:00	1	1	11	69	59	15	0	0	0	0	0	0	0	0	156	34	37
19:00	1	3	6	54	40	5	0	0	0	0	0	0	0	0	109	33	34
20:00	0	1	9	68	47	4	0	0	0	0	0	0	0	0	129	33	34
21:00	0	2	5	42	26	0	0	0	0	0	0	0	0	0	75	32	34
22:00	0	1	1	18	4	1	0	0	0	0	0	0	0	0	25	31	34
23:00	0	0	1	10	5	1	0	0	0	0	0	0	0	0	17	33	35
Total	18	65	237	1069	802	82	3	1	0	0	0	0	0	0	2277		
Percent	0.8%	2.9%	10.4%	46.9%	35.2%	3.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	07:00	11:00	08:00	07:00	11:00	06:00								11:00		
Vol.	3	6	17	58	41	6	1								110		
PM Peak	15:00	17:00	12:00	16:00	15:00	18:00	12:00	14:00							16:00		
Vol.	4	12	21	105	98	15	1	1							235		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
Location: 250 ft E of Newark Rd
Counter: 37014

Site Code: 2
Station ID:
SB On Ramp
Latitude: 39' 84755.0000 North
Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
05/20/22	0	0	1	3	1	1	0	0	0	0	0	0	0	0	6	35	38
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	29	29
02:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	28	29
03:00	0	0	3	5	1	0	0	0	0	0	0	0	0	0	9	29	32
04:00	0	3	0	10	7	0	0	0	0	0	0	0	0	0	20	32	34
05:00	0	3	9	24	10	1	0	0	0	0	0	0	0	0	47	31	34
06:00	0	2	6	25	21	1	0	0	0	0	0	0	0	0	55	33	34
07:00	1	1	15	46	37	7	0	0	0	0	0	0	0	0	107	33	36
08:00	1	4	18	47	50	5	0	0	0	0	0	0	0	0	125	33	34
09:00	4	4	22	60	53	5	0	0	0	0	0	0	0	0	148	33	34
10:00	1	1	20	60	39	2	0	0	0	0	0	0	0	0	123	32	34
11:00	1	5	18	46	42	3	0	0	0	0	0	0	0	0	115	33	34
12 PM	0	4	18	75	52	6	0	0	0	0	0	0	0	0	155	33	34
13:00	2	2	25	97	63	3	0	0	0	0	0	0	0	0	192	32	34
14:00	4	4	27	92	65	3	0	0	0	0	0	0	0	0	195	32	34
15:00	5	1	21	113	89	7	0	0	0	0	0	0	0	0	236	33	34
16:00	2	0	30	100	86	7	1	0	0	0	0	0	0	0	226	33	34
17:00	0	0	17	86	92	12	1	0	0	0	0	0	0	0	208	34	36
18:00	0	1	9	43	56	3	0	0	0	0	0	0	0	0	112	33	34
19:00	0	2	2	42	41	0	0	0	0	0	0	0	0	0	87	33	34
20:00	0	0	8	46	16	0	0	0	0	0	0	0	0	0	70	31	33
21:00	0	1	10	32	18	1	0	0	0	0	0	0	0	0	62	32	34
22:00	1	1	4	10	6	0	0	0	0	0	0	0	0	0	22	32	34
23:00	0	0	2	12	4	0	0	0	0	0	0	0	0	0	18	31	33
Total	22	39	286	1077	849	67	2	0	0	0	0	0	0	0	2342		
Percent	0.9%	1.7%	12.2%	46.0%	36.3%	2.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	09:00	09:00	09:00	07:00									09:00		
Vol.	4	5	22	60	53	7									148		
PM Peak	15:00	12:00	16:00	15:00	17:00	17:00	16:00								15:00		
Vol.	5	4	30	113	92	12	1								236		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
Location: 250 ft E of Newark Rd
Counter: 37014

Site Code: 2
Station ID:
SB On Ramp
Latitude: 39' 84755.0000 North
Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/21/22	1	0	0	7	4	0	0	0	0	0	0	0	0	0	12	32	34
01:00	0	0	0	5	1	0	0	0	0	0	0	0	0	0	6	30	33
02:00	0	0	0	3	2	0	0	0	0	0	0	0	0	0	5	33	34
03:00	0	1	2	4	2	0	0	0	0	0	0	0	0	0	9	31	33
04:00	0	3	5	6	3	1	0	0	0	0	0	0	0	0	18	32	35
05:00	0	3	6	12	7	0	0	0	0	0	0	0	0	0	28	31	34
06:00	0	1	5	18	6	2	0	0	0	0	0	0	0	0	32	32	35
07:00	0	5	9	22	14	0	0	0	0	0	0	0	0	0	50	32	34
08:00	0	5	9	43	30	6	1	0	0	0	0	0	0	0	94	33	36
09:00	0	5	15	45	37	5	0	0	0	0	0	0	0	0	107	33	34
10:00	3	4	13	60	41	10	0	0	0	0	0	0	0	0	131	33	36
11:00	3	5	9	49	56	6	0	0	0	0	0	0	0	0	128	33	34
12 PM	1	5	14	84	52	5	1	0	0	0	0	0	0	0	162	33	34
13:00	2	3	13	53	48	10	0	0	0	0	0	0	0	0	129	34	36
14:00	0	0	15	70	70	8	1	0	0	0	0	0	0	0	164	33	35
15:00	0	0	10	83	72	6	0	0	0	0	0	0	0	0	171	33	34
16:00	0	1	6	78	72	15	0	0	0	0	0	0	0	0	172	34	37
17:00	0	6	14	56	57	7	1	0	0	0	0	0	0	0	141	33	35
18:00	0	1	9	45	37	3	0	0	0	0	0	0	0	0	95	33	34
19:00	0	2	10	24	39	1	0	0	0	0	0	0	0	0	76	33	34
20:00	0	1	4	40	22	2	1	0	0	0	0	0	0	0	70	33	34
21:00	0	1	9	28	8	0	0	0	0	0	0	0	0	0	46	30	33
22:00	0	0	6	12	10	2	0	0	0	0	0	0	0	0	30	33	36
23:00	0	0	2	12	9	0	0	0	0	0	0	0	0	0	23	33	34
Total	10	52	185	859	699	89	5	0	0	0	0	0	0	0	1899		
Percent	0.5%	2.7%	9.7%	45.2%	36.8%	4.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	07:00	09:00	10:00	11:00	10:00	08:00								10:00		
Vol.	3	5	15	60	56	10	1								131		
PM Peak	13:00	17:00	14:00	12:00	15:00	16:00	12:00								16:00		
Vol.	2	6	15	84	72	15	1								172		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
Location: 250 ft E of Newark Rd
Counter: 37014

Site Code: 2
Station ID:
SB On Ramp
Latitude: 39' 84755.0000 North
Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/22/22	0	1	3	5	6	1	0	0	0	0	0	0	0	0	16	33	35
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	19	19
02:00	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4	29	29
03:00	0	0	3	3	1	0	0	0	0	0	0	0	0	0	7	29	33
04:00	0	2	3	3	1	0	0	0	0	0	0	0	0	0	9	29	32
05:00	0	2	3	10	3	0	0	0	0	0	0	0	0	0	18	30	33
06:00	0	1	3	4	6	2	0	0	0	0	0	0	0	0	16	34	37
07:00	0	0	5	10	14	3	0	0	0	0	0	0	0	0	32	34	37
08:00	0	0	13	35	25	2	0	0	0	0	0	0	0	0	75	33	34
09:00	0	2	6	35	22	3	0	0	0	0	0	0	0	0	68	33	34
10:00	0	0	6	45	34	5	1	0	0	0	0	0	0	0	91	33	36
11:00	1	2	7	60	44	5	0	0	0	0	0	0	0	0	119	33	34
12 PM	0	0	9	66	50	5	0	0	0	0	0	0	0	0	130	33	34
13:00	0	2	14	61	68	10	0	0	0	0	0	0	0	0	155	34	36
14:00	0	2	10	63	61	12	0	0	0	0	0	0	0	0	148	34	36
15:00	0	1	14	61	58	7	0	0	0	0	0	0	0	0	141	33	34
16:00	2	2	3	64	49	7	1	0	0	0	0	0	0	0	128	33	36
17:00	0	4	9	59	49	4	0	0	0	0	0	0	0	0	125	33	34
18:00	1	1	6	33	28	2	0	0	0	0	0	0	0	0	71	33	34
19:00	0	0	12	21	20	0	0	0	0	0	0	0	0	0	53	33	34
20:00	1	0	12	26	14	2	0	0	0	0	0	0	0	0	55	32	34
21:00	0	0	7	17	8	2	0	0	0	0	0	0	0	0	34	33	35
22:00	0	0	1	7	2	2	0	0	0	0	0	0	0	0	12	35	38
23:00	0	0	2	10	1	1	0	0	0	0	0	0	0	0	14	29	36
Total	5	23	152	701	564	75	2	0	1522								
Percent	0.3%	1.5%	10.0%	46.1%	37.1%	4.9%	0.1%	0.0%									
AM Peak	11:00	04:00	08:00	11:00	11:00	10:00	10:00								11:00		
Vol.	1	2	13	60	44	5	1								119		
PM Peak	16:00	17:00	13:00	12:00	13:00	14:00	16:00								13:00		
Vol.	2	4	14	66	68	12	1								155		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
Location: 250 ft E of Newark Rd
Counter: 37014

Site Code: 2
Station ID:
SB On Ramp
Latitude: 39' 84755.0000 North
Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/23/22	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	29	29
01:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	33	34
02:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	29	29
03:00	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	33	34
04:00	0	1	4	10	3	0	0	0	0	0	0	0	0	0	18	30	33
05:00	0	3	3	23	5	0	0	0	0	0	0	0	0	0	34	29	33
06:00	0	0	9	36	12	3	0	0	0	0	0	0	0	0	60	32	34
07:00	0	1	12	49	42	4	0	0	0	0	0	0	0	0	108	33	34
08:00	1	3	14	53	46	3	1	0	0	0	0	0	0	0	121	33	34
09:00	2	4	9	40	36	5	0	0	0	0	0	0	0	0	96	33	35
10:00	0	3	16	44	43	5	0	0	0	0	0	0	0	0	111	33	34
11:00	0	7	16	57	38	11	0	0	0	0	0	0	0	0	129	33	37
12 PM	1	6	17	54	49	5	0	0	0	0	0	0	0	0	132	33	34
13:00	0	2	19	48	38	4	0	0	0	0	0	0	0	0	111	33	34
14:00	1	6	19	71	43	14	1	0	0	0	0	0	0	0	155	34	37
15:00	0	2	22	92	95	9	0	0	0	0	0	0	0	0	220	33	34
16:00	0	11	21	104	106	9	0	0	0	0	0	0	0	0	251	33	34
17:00	0	3	15	101	104	4	1	0	0	0	0	0	0	0	228	33	34
18:00	2	5	18	75	54	7	0	0	0	0	0	0	0	0	161	33	34
19:00	1	2	17	45	33	4	0	0	0	0	0	0	0	0	102	33	34
20:00	0	1	10	23	20	2	0	0	0	0	0	0	0	0	56	33	34
21:00	0	1	7	25	16	0	1	0	0	0	0	0	0	0	50	32	34
22:00	0	0	1	9	13	1	0	0	0	0	0	0	0	0	24	34	34
23:00	0	0	1	7	5	0	0	0	0	0	0	0	0	0	13	33	34
Total	8	61	250	974	804	90	4	0	0	0	0	0	0	0	2191		
Percent	0.4%	2.8%	11.4%	44.5%	36.7%	4.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	10:00	11:00	08:00	11:00	08:00								11:00		
Vol.	2	7	16	57	46	11	1								129		
PM Peak	18:00	16:00	15:00	16:00	16:00	14:00	14:00								16:00		
Vol.	2	11	22	104	106	14	1								251		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB On Ramp from Newark Rd
Location: 250 ft E of Newark Rd
Counter: 37014

Site Code: 2
Station ID:
SB On Ramp
Latitude: 39' 84755.0000 North
Longitude: 75' 76582.0000 West

SB On Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/24/22	0	0	0	4	2	0	0	0	0	0	0	0	0	0	6	32	34
01:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	33	34
02:00	0	0	3	4	0	0	0	0	0	0	0	0	0	0	7	28	29
03:00	0	1	0	3	1	0	0	0	0	0	0	0	0	0	5	31	33
04:00	0	2	8	11	5	0	0	0	0	0	0	0	0	0	26	31	33
05:00	5	1	9	20	9	1	0	0	0	0	0	0	0	0	45	31	34
06:00	0	2	9	28	21	3	0	0	0	0	0	0	0	0	63	33	34
07:00	6	5	8	58	43	2	0	0	0	0	0	0	0	0	122	33	34
08:00	4	4	23	38	32	4	0	0	0	0	0	0	0	0	105	33	34
09:00	0	4	14	55	26	2	0	0	0	0	0	0	0	0	101	32	34
10:00	1	5	9	41	31	2	0	0	0	0	0	0	0	0	89	33	34
11:00	1	4	9	41	44	6	0	0	0	0	0	0	0	0	105	33	35
12 PM	1	7	11	48	45	5	0	0	0	0	0	0	0	0	117	33	34
13:00	7	6	15	66	43	2	0	0	0	0	0	0	0	0	139	32	34
14:00	1	5	16	61	40	4	1	0	0	0	0	0	0	0	128	33	34
15:00	1	3	24	84	84	12	2	0	0	0	0	0	0	0	210	33	36
16:00	0	2	15	100	105	8	0	0	0	0	0	0	0	0	230	33	34
17:00	4	3	21	113	90	7	0	0	0	0	0	0	0	0	238	33	34
18:00	0	3	19	69	48	5	3	0	0	0	0	0	0	0	147	33	35
19:00	0	1	14	43	37	6	0	0	0	0	0	0	0	0	101	33	35
20:00	1	3	12	28	28	1	0	0	0	0	0	0	0	0	73	33	34
21:00	0	2	6	32	20	0	0	0	0	0	0	0	0	0	60	32	34
22:00	0	0	1	14	12	0	0	0	0	0	0	0	0	0	27	33	34
23:00	0	0	4	9	7	0	0	0	0	0	0	0	0	0	20	32	34
Total	32	63	250	971	774	70	6	0	2166								
Percent	1.5%	2.9%	11.5%	44.8%	35.7%	3.2%	0.3%	0.0%									
AM Peak	07:00	07:00	08:00	07:00	11:00	11:00									07:00		
Vol.	6	5	23	58	44	6									122		
PM Peak	13:00	12:00	15:00	17:00	16:00	15:00	18:00								17:00		
Vol.	7	7	24	113	105	12	3								238		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
Location: 295 ft E of Newark Rd
Counter: 36003

Site Code: 4
Station ID:
SB Off Ramp
Latitude: 39' 84762.0000 North
Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	0	1	5	14	20	31	4	0	0	0	0	0	0	0	75	38	40
12 PM	0	0	4	21	48	30	6	1	0	0	0	0	0	0	110	38	41
13:00	0	0	4	23	45	28	3	1	0	0	0	0	0	0	104	37	39
14:00	0	1	2	12	48	31	3	0	0	0	0	0	0	0	97	38	39
15:00	1	0	8	23	48	43	8	2	0	0	0	0	0	0	133	38	42
16:00	0	0	5	28	47	53	7	0	0	0	0	0	0	0	140	38	39
17:00	0	1	0	18	66	38	20	0	0	0	0	0	0	0	143	39	43
18:00	1	0	2	11	33	42	9	0	0	0	0	0	0	0	98	39	42
19:00	0	0	1	6	39	32	10	0	0	0	0	0	0	0	88	39	42
20:00	0	0	2	9	33	22	1	0	0	0	0	0	0	0	67	37	39
21:00	0	0	1	6	20	14	2	1	0	0	0	0	0	0	44	38	42
22:00	0	0	0	7	17	7	1	0	0	0	0	0	0	0	32	37	39
23:00	0	0	0	1	7	4	1	0	0	0	0	0	0	0	13	38	41
Total	2	3	34	179	471	375	75	5	0	0	0	0	0	0	1144		
Percent	0.2%	0.3%	3.0%	15.6%	41.2%	32.8%	6.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		11:00	11:00	11:00	11:00	11:00	11:00								11:00		
Vol.		1	5	14	20	31	4								75		
PM Peak	15:00	14:00	15:00	16:00	17:00	16:00	17:00	15:00							17:00		
Vol.	1	1	8	28	66	53	20	2							143		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
Location: 295 ft E of Newark Rd
Counter: 36003

Site Code: 4
Station ID:
SB Off Ramp
Latitude: 39' 84762.0000 North
Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/18/22	0	0	0	0	3	3	0	0	0	0	0	0	0	0	6	38	39
01:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	38	39
02:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	38	39
03:00	0	0	0	3	0	1	0	0	0	0	0	0	0	0	4	37	38
04:00	0	0	0	1	7	6	0	0	0	0	0	0	0	0	14	38	39
05:00	1	1	0	3	8	3	1	0	0	0	0	0	0	0	17	37	40
06:00	0	0	0	8	12	13	4	0	0	0	0	0	0	0	37	39	42
07:00	0	0	5	15	32	28	8	0	0	0	0	0	0	0	88	39	42
08:00	0	0	2	16	21	14	9	0	0	0	0	0	0	0	62	39	43
09:00	0	1	4	9	30	21	1	0	0	0	0	0	0	0	66	37	39
10:00	0	1	2	9	26	22	2	0	0	0	0	0	0	0	62	38	39
11:00	2	4	6	16	19	24	7	1	0	0	0	0	0	0	79	39	42
12 PM	0	0	2	9	28	36	6	1	0	0	0	0	0	0	82	39	42
13:00	0	0	7	17	39	48	3	0	0	0	0	0	0	0	114	38	39
14:00	0	2	6	13	48	45	6	1	0	0	0	0	0	0	121	38	40
15:00	6	2	6	25	47	49	12	1	0	0	0	0	0	0	148	39	42
16:00	0	1	2	26	60	53	6	1	0	0	0	0	0	0	149	38	39
17:00	0	0	4	15	51	59	9	0	0	0	0	0	0	0	138	39	41
18:00	0	0	1	17	53	48	8	2	0	0	0	0	0	0	129	39	42
19:00	0	0	0	8	34	34	6	0	0	0	0	0	0	0	82	39	41
20:00	0	0	0	12	39	20	4	1	0	0	0	0	0	0	76	38	41
21:00	0	2	2	2	14	10	4	2	0	0	0	0	0	0	36	40	45
22:00	0	0	0	2	10	14	2	1	0	0	0	0	0	0	29	39	43
23:00	0	0	3	2	7	4	0	0	0	0	0	0	0	0	16	37	38
Total	9	14	52	229	589	557	98	11	0	0	0	0	0	0	1559		
Percent	0.6%	0.9%	3.3%	14.7%	37.8%	35.7%	6.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	08:00	07:00	07:00	08:00	11:00							07:00		
Vol.	2	4	6	16	32	28	9	1							88		
PM Peak	15:00	14:00	13:00	16:00	16:00	17:00	15:00	18:00							16:00		
Vol.	6	2	7	26	60	59	12	2							149		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
Location: 295 ft E of Newark Rd
Counter: 36003

Site Code: 4
Station ID:
SB Off Ramp
Latitude: 39' 84762.0000 North
Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/19/22	0	0	0	1	5	1	0	0	0	0	0	0	0	0	7	34	38
01:00	0	0	1	1	2	2	0	0	0	0	0	0	0	0	6	37	39
02:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	29	29
03:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	33	34
04:00	0	0	2	2	4	6	0	0	0	0	0	0	0	0	14	38	39
05:00	0	0	1	2	7	4	1	0	0	0	0	0	0	0	15	38	41
06:00	0	1	7	6	13	6	2	0	0	0	0	0	0	0	35	37	40
07:00	0	0	1	10	35	32	5	0	0	0	0	0	0	0	83	38	40
08:00	1	5	4	13	23	26	6	1	0	0	0	0	0	0	79	39	42
09:00	0	0	7	18	24	27	2	0	0	0	0	0	0	0	78	38	39
10:00	0	0	6	16	32	29	4	0	0	0	0	0	0	0	87	38	39
11:00	0	1	0	16	31	25	4	0	0	0	0	0	0	0	77	38	40
12 PM	0	0	5	13	44	26	3	1	0	0	0	0	0	0	92	38	39
13:00	0	0	5	12	35	35	5	1	0	0	0	0	0	0	93	38	41
14:00	0	3	3	12	38	41	15	1	0	1	0	0	0	0	114	39	43
15:00	2	4	7	14	44	32	12	0	0	0	0	0	0	0	115	39	42
16:00	0	0	1	25	80	45	10	0	0	0	0	0	0	0	161	38	40
17:00	0	0	1	12	68	65	14	1	0	0	0	0	0	0	161	39	42
18:00	0	0	3	19	60	46	12	1	0	0	0	0	0	0	141	39	42
19:00	0	0	0	10	36	35	6	1	0	0	0	0	0	0	88	39	42
20:00	0	0	2	6	29	21	0	0	0	0	0	0	0	0	58	37	39
21:00	0	0	1	14	29	26	4	0	0	0	0	0	0	0	74	38	40
22:00	0	0	1	4	15	9	2	1	0	0	0	0	0	0	32	39	43
23:00	0	1	0	3	3	5	1	1	0	0	0	0	0	0	14	39	46
Total	3	15	59	231	658	544	108	9	0	1	0	0	0	0	1628		
Percent	0.2%	0.9%	3.6%	14.2%	40.4%	33.4%	6.6%	0.6%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	06:00	09:00	07:00	07:00	08:00	08:00							10:00		
Vol.	1	5	7	18	35	32	6	1							87		
PM Peak	15:00	15:00	15:00	16:00	16:00	17:00	14:00	12:00		14:00					16:00		
Vol.	2	4	7	25	80	65	15	1		1					161		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/20/22	0	0	1	4	2	1	0	0	0	0	0	0	0	0	8	34	38
01:00	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3	42	44
02:00	0	1	2	2	0	1	0	0	0	0	0	0	0	0	6	35	38
03:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4	38	39
04:00	0	0	0	1	4	8	0	1	0	0	0	0	0	0	14	39	46
05:00	0	0	1	1	6	6	2	0	0	0	0	0	0	0	16	39	42
06:00	0	0	1	7	14	10	5	1	0	0	0	0	0	0	38	40	44
07:00	0	0	1	15	36	25	7	0	0	0	0	0	0	0	84	38	42
08:00	0	2	2	15	31	28	5	0	0	0	0	0	0	0	83	38	40
09:00	0	0	0	6	20	25	7	1	0	0	0	0	0	0	59	39	43
10:00	0	1	7	11	22	31	6	1	0	0	0	0	0	0	79	39	42
11:00	0	1	7	16	38	38	12	2	0	0	0	0	0	0	114	39	43
12 PM	0	4	1	10	49	30	7	1	0	0	0	0	0	0	102	38	42
13:00	1	3	5	28	36	26	4	0	0	0	0	0	0	0	103	37	39
14:00	2	2	3	22	45	37	3	0	0	0	0	0	0	0	114	38	39
15:00	0	0	2	23	58	35	9	0	0	0	0	0	0	0	127	38	41
16:00	3	4	6	22	58	45	11	1	0	0	0	0	0	0	150	38	42
17:00	0	0	3	19	42	57	10	0	0	0	0	0	0	0	131	39	41
18:00	0	0	2	9	45	44	6	1	1	0	0	0	0	0	108	39	42
19:00	0	0	0	12	51	23	11	0	0	0	0	0	0	0	97	39	42
20:00	0	0	3	5	27	22	3	0	0	0	0	0	0	0	60	38	39
21:00	0	1	1	10	18	19	3	0	0	0	0	0	0	0	52	38	40
22:00	0	0	1	7	9	9	0	0	0	0	0	0	0	0	26	37	39
23:00	0	0	0	2	9	11	2	0	1	0	0	0	0	0	25	39	44
Total	6	19	49	247	624	533	114	9	2	0	0	0	0	0	1603		
Percent	0.4%	1.2%	3.1%	15.4%	38.9%	33.3%	7.1%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		08:00	10:00	11:00	11:00	11:00	11:00	11:00							11:00		
Vol.		2	7	16	38	38	12	2							114		
PM Peak	16:00	12:00	16:00	13:00	15:00	17:00	16:00	12:00	18:00						16:00		
Vol.	3	4	6	28	58	57	11	1	1						150		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
Location: 295 ft E of Newark Rd
Counter: 36003

Site Code: 4
Station ID:
SB Off Ramp
Latitude: 39' 84762.0000 North
Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	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	76:999	Total	85th Percent	95th Percent
05/21/22	0	0	1	1	11	6	0	0	0	0	0	0	0	0	19	37	39
01:00	0	0	1	5	2	0	2	0	0	0	0	0	0	0	10	41	43
02:00	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6	34	34
03:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	33	34
04:00	0	0	0	1	1	4	1	2	0	0	0	0	0	0	9	46	48
05:00	0	0	0	0	6	5	1	0	0	0	0	0	0	0	12	39	41
06:00	0	0	1	0	13	9	0	0	0	0	0	0	0	0	23	38	39
07:00	0	0	0	4	25	36	5	1	0	0	0	0	0	0	71	39	42
08:00	0	0	1	8	37	34	7	1	0	0	0	0	0	0	88	39	42
09:00	0	0	2	7	40	36	6	0	0	0	0	0	0	0	91	38	41
10:00	0	1	6	13	32	36	11	2	0	0	0	0	0	0	101	39	43
11:00	0	0	2	23	50	24	8	2	0	0	0	0	0	0	109	38	42
12 PM	0	0	2	11	35	48	12	1	0	0	0	0	0	0	109	39	43
13:00	0	0	0	11	36	49	8	1	0	0	0	0	0	0	105	39	42
14:00	0	0	0	9	34	42	10	0	0	0	0	0	0	0	95	39	42
15:00	0	0	1	8	32	38	15	1	0	0	0	0	0	0	95	40	43
16:00	0	1	9	13	38	37	9	1	0	0	0	0	0	0	108	39	42
17:00	0	0	0	4	38	34	7	0	0	0	0	0	0	0	83	39	42
18:00	0	0	0	8	45	35	2	0	0	0	0	0	0	0	90	38	39
19:00	0	0	1	7	26	21	3	0	0	0	0	0	0	0	58	38	40
20:00	0	0	0	15	30	12	3	0	0	0	0	0	0	0	60	37	39
21:00	0	0	1	7	21	17	2	0	0	0	0	0	0	0	48	38	39
22:00	0	0	1	12	19	7	3	0	0	0	0	0	0	0	42	37	41
23:00	0	0	0	3	8	11	1	0	0	0	0	0	0	0	23	38	39
Total	0	2	29	171	587	541	116	12	0	0	0	0	0	0	1458		
Percent	0.0%	0.1%	2.0%	11.7%	40.3%	37.1%	8.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		10:00	10:00	11:00	11:00	07:00	10:00	04:00							11:00		
Vol.		1	6	23	50	36	11	2							109		
PM Peak		16:00	16:00	20:00	18:00	13:00	15:00	12:00							12:00		
Vol.		1	9	15	45	49	15	1							109		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
Location: 295 ft E of Newark Rd
Counter: 36003

Site Code: 4
Station ID:
SB Off Ramp
Latitude: 39' 84762.0000 North
Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/22/22	0	0	0	1	5	6	1	0	0	0	0	0	0	0	13	39	41
01:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	37	39
02:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	43	44
03:00	0	0	0	2	3	0	0	1	0	0	0	0	0	0	6	45	48
04:00	0	0	0	0	4	3	1	0	0	0	0	0	0	0	8	39	42
05:00	0	0	0	0	3	5	2	0	0	0	0	0	0	0	10	41	43
06:00	0	0	0	1	3	5	2	0	0	0	0	0	0	0	11	40	43
07:00	0	0	0	2	8	8	2	1	0	0	0	0	0	0	21	39	44
08:00	0	0	0	5	36	18	4	0	0	0	0	0	0	0	63	38	41
09:00	0	0	0	4	17	30	6	0	0	0	0	0	0	0	57	39	42
10:00	0	0	0	8	34	24	7	0	0	0	0	0	0	0	73	39	42
11:00	0	1	3	11	27	29	7	1	0	0	0	0	0	0	79	39	42
12 PM	0	0	0	10	42	32	11	0	0	0	0	0	0	0	95	39	42
13:00	0	1	2	7	46	32	4	0	0	0	0	0	0	0	92	38	39
14:00	0	0	0	10	37	34	4	1	0	0	0	0	0	0	86	38	40
15:00	0	0	0	7	33	35	4	1	0	0	0	0	0	0	80	39	41
16:00	0	0	1	4	41	24	8	0	0	0	0	0	0	0	78	39	42
17:00	0	0	3	14	42	21	5	0	0	0	0	0	0	0	85	38	40
18:00	0	0	1	6	33	20	3	0	0	0	0	0	0	0	63	38	39
19:00	0	0	0	4	16	23	2	0	0	0	0	0	0	0	45	38	39
20:00	0	0	4	6	16	14	2	0	0	0	0	0	0	0	42	38	39
21:00	0	0	0	0	20	12	3	0	0	0	0	0	0	0	35	39	42
22:00	0	1	1	3	12	3	0	0	0	0	0	0	0	0	20	35	38
23:00	0	0	0	6	5	0	0	0	0	0	0	0	0	0	11	33	34
Total	0	3	15	111	485	380	79	5	0	0	0	0	0	0	1078		
Percent	0.0%	0.3%	1.4%	10.3%	45.0%	35.3%	7.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		11:00	11:00	11:00	08:00	09:00	10:00	03:00							11:00		
Vol.		1	3	11	36	30	7	1							79		
PM Peak		13:00	20:00	17:00	13:00	15:00	12:00	14:00							12:00		
Vol.		1	4	14	46	35	11	1							95		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
 Location: 295 ft E of Newark Rd
 Counter: 36003

Site Code: 4
 Station ID:
 SB Off Ramp
 Latitude: 39' 84762.0000 North
 Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/23/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	29	29
02:00	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	38	39
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	1	1	8	3	3	0	0	0	0	0	0	0	16	41	43
05:00	0	0	0	1	7	5	4	0	0	0	0	0	0	0	17	41	43
06:00	0	0	4	10	10	16	3	0	0	0	0	0	0	0	43	38	41
07:00	0	0	1	9	27	38	3	0	0	0	0	0	0	0	78	38	39
08:00	1	2	6	9	33	32	5	1	0	0	0	0	0	0	89	38	41
09:00	0	0	3	8	21	26	4	0	0	0	0	0	0	0	62	38	41
10:00	0	1	5	13	24	23	7	1	0	0	0	0	0	0	74	39	43
11:00	5	2	7	15	23	34	4	0	0	0	0	0	0	0	90	38	39
12 PM	0	2	2	14	35	27	6	1	0	0	0	0	0	0	87	38	42
13:00	3	1	8	16	30	30	6	1	0	0	0	0	0	0	95	38	41
14:00	0	0	2	12	43	36	7	0	0	0	0	0	0	0	100	38	41
15:00	6	2	6	18	50	27	7	1	0	0	0	0	0	0	117	38	41
16:00	0	1	5	14	73	30	9	0	0	0	0	0	0	0	132	38	41
17:00	1	0	4	25	57	53	14	0	1	0	0	0	0	0	155	39	42
18:00	0	0	1	9	37	35	4	1	0	0	0	0	0	0	87	38	40
19:00	0	0	2	17	35	21	6	0	0	0	0	0	0	0	81	38	41
20:00	0	0	2	9	20	12	3	0	0	0	0	0	0	0	46	38	41
21:00	0	0	1	7	22	7	2	0	0	0	0	0	0	0	39	37	40
22:00	0	0	0	3	7	9	2	0	0	0	0	0	0	0	21	39	42
23:00	0	0	1	4	3	3	1	0	0	0	0	0	0	0	12	38	41
Total	16	11	61	215	566	469	100	6	1	0	0	0	0	0	1445		
Percent	1.1%	0.8%	4.2%	14.9%	39.2%	32.5%	6.9%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	08:00	11:00	11:00	08:00	07:00	10:00	08:00							11:00		
Vol.	5	2	7	15	33	38	7	1							90		
PM Peak	15:00	12:00	13:00	17:00	16:00	17:00	17:00	12:00	17:00						17:00		
Vol.	6	2	8	25	73	53	14	1	1						155		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 SB Off Ramp to Newark Rd
Location: 295 ft E of Newark Rd
Counter: 36003

Site Code: 4
Station ID:
SB Off Ramp
Latitude: 39' 84762.0000 North
Longitude: 75' 76569.0000 West

SB Off Ramp

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
05/24/22	0	0	0	1	3	1	0	0	0	0	0	0	0	0	5	36	38
01:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	39	39
02:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	34	34
03:00	0	0	0	1	0	2	0	0	0	0	0	0	0	0	3	38	39
04:00	0	0	1	2	9	5	1	0	0	0	0	0	0	0	18	38	40
05:00	5	0	0	3	6	4	2	0	0	0	0	0	0	0	20	38	42
06:00	2	0	2	7	10	7	2	0	0	0	0	0	0	0	30	38	41
07:00	0	0	2	6	35	35	4	0	0	0	0	0	0	0	82	38	39
08:00	0	4	3	8	30	30	1	0	0	0	0	0	0	0	76	38	39
09:00	3	2	3	15	28	19	1	1	0	0	0	0	0	0	72	37	39
10:00	4	0	3	14	26	13	6	0	0	0	0	0	0	0	66	38	42
11:00	1	0	5	14	32	24	5	0	0	0	0	0	0	0	81	38	40
12 PM	0	0	2	12	40	30	8	0	1	0	0	0	0	0	93	39	42
13:00	1	0	1	11	49	32	8	1	0	0	0	0	0	0	103	38	42
14:00	1	0	7	19	43	36	8	2	0	0	0	0	0	0	116	38	42
15:00	0	2	10	24	54	33	3	0	0	0	0	0	0	0	126	37	39
16:00	1	1	3	13	56	45	5	0	0	0	0	0	0	0	124	38	39
17:00	0	0	2	19	51	55	8	0	0	0	0	0	0	0	135	38	40
18:00	1	1	2	16	44	33	5	0	0	0	0	0	0	0	102	38	39
19:00	1	0	1	12	33	25	5	1	0	0	0	0	0	0	78	38	42
20:00	0	0	1	8	28	12	3	1	0	0	0	0	0	0	53	38	42
21:00	0	0	2	9	20	8	1	0	0	0	0	0	0	0	40	36	39
22:00	0	0	0	2	13	6	2	0	0	0	0	0	0	0	23	38	42
23:00	0	0	0	2	12	2	0	1	0	0	0	0	0	0	17	36	45
Total	20	10	50	218	624	459	78	7	1	0	0	0	0	0	1467		
Percent	1.4%	0.7%	3.4%	14.9%	42.5%	31.3%	5.3%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	08:00	11:00	09:00	07:00	07:00	10:00	09:00							07:00		
Vol.	5	4	5	15	35	35	6	1							82		
PM Peak	13:00	15:00	15:00	15:00	16:00	17:00	12:00	14:00	12:00						17:00		
Vol.	1	2	10	24	56	55	8	2	1						135		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
Location: 250 ft W of Newark Rd
Counter: 37005

Site Code: 1
Station ID:
NB On Ramp
Latitude: 39' 84524.0000 North
Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	1	3	7	21	47	15	0	0	0	0	0	0	0	0	94	35	38
11:00	2	2	3	15	26	5	0	0	0	0	0	0	0	0	53	34	37
12 PM	0	0	5	24	55	15	0	0	0	0	0	0	0	0	99	35	38
13:00	0	0	8	23	38	6	1	0	0	0	0	0	0	0	76	34	37
14:00	5	2	3	22	37	7	0	0	0	0	0	0	0	0	76	34	37
15:00	0	1	3	17	49	14	0	0	0	0	0	0	0	0	84	35	38
16:00	0	0	9	26	47	14	0	0	0	0	0	0	0	0	96	34	38
17:00	0	0	3	19	55	18	1	0	0	0	0	0	0	0	96	36	38
18:00	0	0	0	18	37	4	2	0	0	0	0	0	0	0	61	34	38
19:00	0	0	2	16	28	3	0	0	0	0	0	0	0	0	49	34	35
20:00	0	0	5	13	25	4	1	0	0	0	0	0	0	0	48	34	38
21:00	0	0	2	8	7	2	0	0	0	0	0	0	0	0	19	34	37
22:00	0	0	1	3	4	3	0	0	0	0	0	0	0	0	11	37	39
23:00	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	33	34
Total	8	8	51	227	457	110	5	0	0	0	0	0	0	0	866		
Percent	0.9%	0.9%	5.9%	26.2%	52.8%	12.7%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	10:00	10:00	10:00	10:00									10:00		
Vol.	2	3	7	21	47	15									94		
PM Peak	14:00	14:00	16:00	16:00	12:00	17:00	18:00								12:00		
Vol.	5	2	9	26	55	18	2								99		

Tri-State Traffic Data, Inc.
 610-466-1469
 TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/18/22	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	43	44
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	34	34
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	29	29
03:00	0	0	0	4	3	0	0	0	0	0	0	0	0	0	7	33	34
04:00	0	0	3	5	5	2	0	0	0	0	0	0	0	0	15	34	38
05:00	0	0	6	6	14	4	1	0	0	0	0	0	0	0	31	35	39
06:00	0	3	11	23	63	13	0	0	0	0	0	0	0	0	113	34	37
07:00	0	1	6	29	67	13	0	0	0	0	0	0	0	0	116	34	37
08:00	0	1	7	31	36	20	3	0	0	0	0	0	0	0	98	37	39
09:00	0	0	5	17	41	16	0	0	0	0	0	0	0	0	79	36	38
10:00	0	1	4	20	29	11	0	0	0	0	0	0	0	0	65	35	38
11:00	0	1	6	21	34	12	0	0	0	0	0	0	0	0	74	35	38
12 PM	0	0	6	23	41	9	0	0	0	0	0	0	0	0	79	34	37
13:00	0	0	2	24	43	16	1	0	0	0	0	0	0	0	86	36	38
14:00	0	0	4	24	44	12	0	0	0	0	0	0	0	0	84	34	38
15:00	0	1	4	22	47	23	2	1	0	0	0	0	0	0	100	37	39
16:00	0	0	2	28	66	23	0	0	0	0	0	0	0	0	119	36	38
17:00	0	0	4	22	67	26	2	0	0	0	0	0	0	0	121	36	39
18:00	0	2	1	19	46	13	0	0	0	0	0	0	0	0	81	35	38
19:00	0	1	2	9	29	4	0	0	1	0	0	0	0	0	46	34	38
20:00	0	0	0	10	7	6	0	0	0	0	0	0	0	0	23	37	39
21:00	0	0	0	10	9	5	1	0	0	0	0	0	0	0	25	37	39
22:00	0	0	0	0	3	1	1	0	0	0	0	0	0	0	5	41	43
23:00	0	0	1	3	1	1	0	0	0	0	0	0	0	0	6	35	38
Total	0	11	74	351	696	231	12	1	1	0	0	0	0	0	1377		
Percent	0.0%	0.8%	5.4%	25.5%	50.5%	16.8%	0.9%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		06:00	06:00	08:00	07:00	08:00	08:00								07:00		
Vol.		3	11	31	67	20	3								116		
PM Peak		18:00	12:00	16:00	17:00	17:00	15:00	19:00							17:00		
Vol.		2	6	28	67	26	2	1	1						121		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
Location: 250 ft W of Newark Rd
Counter: 37005

Site Code: 1
Station ID:
NB On Ramp
Latitude: 39' 84524.0000 North
Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/19/22	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	33	34
01:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	34	34
02:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	28	29
03:00	0	1	1	5	1	0	0	0	0	0	0	0	0	0	8	29	32
04:00	0	0	0	5	5	0	0	0	0	0	0	0	0	0	10	33	34
05:00	0	0	4	13	12	2	1	0	0	0	0	0	0	0	32	34	38
06:00	0	0	9	28	57	7	0	0	0	0	0	0	0	0	101	34	36
07:00	0	6	10	26	75	15	2	0	0	0	0	0	0	0	134	34	38
08:00	0	0	5	36	66	18	0	0	0	0	0	0	0	0	125	34	38
09:00	0	0	5	27	30	17	1	0	0	0	0	0	0	0	80	36	39
10:00	0	3	9	15	44	14	0	0	0	0	0	0	0	0	85	35	38
11:00	4	2	13	29	31	5	0	0	0	0	0	0	0	0	84	33	35
12 PM	0	0	3	10	48	9	1	0	0	0	0	0	0	0	71	34	38
13:00	0	1	4	25	21	10	0	0	0	0	0	0	0	0	61	35	38
14:00	1	1	2	25	50	14	3	0	0	0	0	0	0	0	96	35	39
15:00	0	0	5	17	51	25	0	0	0	0	0	0	0	0	98	37	39
16:00	0	1	1	27	57	13	0	0	0	0	0	0	0	0	99	34	38
17:00	0	0	3	19	55	24	4	0	0	0	0	0	0	0	105	37	39
18:00	0	0	1	13	35	9	1	0	0	0	0	0	0	0	59	35	38
19:00	0	2	1	22	27	14	1	1	0	0	0	0	0	0	68	37	39
20:00	0	0	2	23	27	3	0	0	0	0	0	0	0	0	55	34	35
21:00	0	0	0	7	12	2	0	0	0	0	0	0	0	0	21	34	37
22:00	0	0	0	7	1	1	0	0	0	0	0	0	0	0	9	33	37
23:00	0	0	0	3	1	1	0	0	0	0	0	0	0	0	5	36	38
Total	6	17	79	383	709	203	14	1	0	0	0	0	0	0	1412		
Percent	0.4%	1.2%	5.6%	27.1%	50.2%	14.4%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	07:00	11:00	08:00	07:00	08:00	07:00								07:00		
Vol.	4	6	13	36	75	18	2								134		
PM Peak	14:00	19:00	15:00	16:00	16:00	15:00	17:00	19:00							17:00		
Vol.	1	2	5	27	57	25	4	1							105		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
 Location: 250 ft W of Newark Rd
 Counter: 37005

Site Code: 1
 Station ID:
 NB On Ramp
 Latitude: 39' 84524.0000 North
 Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
05/20/22	0	0	0	3	2	0	0	0	0	0	0	0	0	0	5	33	34
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	29	29
03:00	0	0	0	4	1	0	0	0	0	0	0	0	0	0	5	31	33
04:00	0	0	1	6	9	1	0	0	0	0	0	0	0	0	17	34	35
05:00	2	0	0	7	8	5	1	0	0	0	0	0	0	0	23	37	39
06:00	0	0	6	28	51	10	4	0	0	0	0	0	0	0	99	34	39
07:00	2	1	8	25	58	24	1	0	0	0	0	0	0	0	119	36	38
08:00	0	1	5	32	52	13	0	0	0	0	0	0	0	0	103	34	38
09:00	0	1	8	28	45	11	0	0	0	0	0	0	0	0	93	34	37
10:00	0	0	5	18	42	13	1	0	0	0	0	0	0	0	79	35	38
11:00	0	0	4	8	40	27	2	0	0	0	0	0	0	0	81	38	39
12 PM	5	2	2	23	31	17	3	0	0	0	0	0	0	0	83	37	39
13:00	0	0	6	32	48	12	0	0	0	0	0	0	0	0	98	34	37
14:00	0	0	7	19	47	4	1	0	0	0	0	0	0	0	78	34	36
15:00	0	0	3	26	56	15	0	0	0	0	0	0	0	0	100	35	38
16:00	0	0	0	16	54	15	1	0	0	0	0	0	0	0	86	36	38
17:00	0	0	3	14	53	23	0	0	0	0	0	0	0	0	93	36	38
18:00	1	0	1	14	44	8	0	0	0	0	0	0	0	0	68	34	37
19:00	0	0	1	23	25	9	0	0	0	0	0	0	0	0	58	35	38
20:00	0	0	0	15	18	9	0	0	0	0	0	0	0	0	42	36	38
21:00	0	0	2	5	14	4	0	0	0	0	0	0	0	0	25	35	38
22:00	0	0	0	7	12	2	0	0	0	0	0	0	0	0	21	34	37
23:00	0	0	0	2	1	0	1	0	0	0	0	0	0	0	4	42	43
Total	10	5	62	357	711	222	15	0	0	0	0	0	0	0	1382		
Percent	0.7%	0.4%	4.5%	25.8%	51.4%	16.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	07:00	07:00	08:00	07:00	11:00	06:00								07:00		
Vol.	2	1	8	32	58	27	4								119		
PM Peak	12:00	12:00	14:00	13:00	15:00	17:00	12:00								15:00		
Vol.	5	2	7	32	56	23	3								100		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
Location: 250 ft W of Newark Rd
Counter: 37005

Site Code: 1
Station ID:
NB On Ramp
Latitude: 39' 84524.0000 North
Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/21/22	0	1	0	1	5	0	0	0	0	0	0	0	0	0	7	33	34
01:00	0	1	0	2	2	0	1	0	0	0	0	0	0	0	6	40	43
02:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	32	34
03:00	0	0	1	0	4	0	0	0	0	0	0	0	0	0	5	34	34
04:00	0	0	0	2	4	0	0	0	0	0	0	0	0	0	6	33	34
05:00	0	0	0	3	9	1	1	0	0	0	0	0	0	0	14	34	41
06:00	0	0	3	9	18	8	0	0	0	0	0	0	0	0	38	36	38
07:00	0	0	0	12	27	11	3	0	0	0	0	0	0	0	53	37	40
08:00	2	0	3	12	28	18	0	0	0	0	0	0	0	0	63	37	39
09:00	0	2	3	11	36	24	1	0	0	0	0	0	0	0	77	37	39
10:00	0	1	4	16	60	19	0	0	0	0	0	0	0	0	100	36	38
11:00	0	1	3	12	41	15	2	0	0	0	0	0	0	0	74	36	39
12 PM	0	1	0	25	49	16	1	1	0	0	0	0	0	0	93	36	39
13:00	1	2	1	17	47	21	0	0	0	0	0	0	0	0	89	36	38
14:00	0	0	5	20	44	16	2	0	0	0	0	0	0	0	87	36	39
15:00	3	1	6	21	70	14	2	0	0	0	0	0	0	0	117	34	38
16:00	0	0	5	38	53	17	0	0	0	0	0	0	0	0	113	35	38
17:00	0	0	6	20	52	6	2	0	0	0	0	0	0	0	86	34	38
18:00	0	0	2	14	34	4	1	0	0	0	0	0	0	0	55	34	37
19:00	0	0	3	18	24	4	1	0	0	0	0	0	0	0	50	34	38
20:00	0	0	7	13	15	6	0	0	0	0	0	0	0	0	41	34	38
21:00	0	0	2	16	6	1	0	0	0	0	0	0	0	0	25	32	34
22:00	0	0	3	11	10	2	0	0	0	0	0	0	0	0	26	34	36
23:00	0	0	2	5	2	2	0	0	0	0	0	0	0	0	11	35	38
Total	6	10	59	300	641	205	17	1	0	0	0	0	0	0	1239		
Percent	0.5%	0.8%	4.8%	24.2%	51.7%	16.5%	1.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	09:00	10:00	10:00	10:00	09:00	07:00								10:00		
Vol.	2	2	4	16	60	24	3								100		
PM Peak	15:00	13:00	20:00	16:00	15:00	13:00	14:00	12:00							15:00		
Vol.	3	2	7	38	70	21	2	1							117		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
Location: 250 ft W of Newark Rd
Counter: 37005

Site Code: 1
Station ID:
NB On Ramp
Latitude: 39' 84524.0000 North
Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
05/22/22	0	0	1	2	1	1	0	0	0	0	0	0	0	0	5	36	38
01:00	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3	37	39
02:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4	38	39
03:00	0	1	0	3	0	1	0	0	0	0	0	0	0	0	5	36	38
04:00	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4	34	34
05:00	0	0	0	0	3	2	0	0	0	0	0	0	0	0	5	38	39
06:00	0	0	2	3	11	5	1	0	0	0	0	0	0	0	22	37	39
07:00	0	0	1	5	24	3	0	0	0	0	0	0	0	0	33	34	37
08:00	0	0	5	18	26	8	0	0	0	0	0	0	0	0	57	34	38
09:00	0	0	1	12	38	10	1	0	0	0	0	0	0	0	62	35	38
10:00	0	0	4	19	52	11	2	0	0	0	0	0	0	0	88	34	38
11:00	0	0	1	11	40	18	2	0	0	0	0	0	0	0	72	37	39
12 PM	0	0	1	16	66	18	1	0	0	0	0	0	0	0	102	36	38
13:00	0	0	1	16	51	9	0	1	0	0	0	0	0	0	78	34	38
14:00	0	0	4	19	48	16	3	0	0	0	0	0	0	0	90	36	39
15:00	0	0	10	32	50	10	2	0	0	0	0	0	0	0	104	34	38
16:00	0	0	6	29	53	8	0	0	0	0	0	0	0	0	96	34	36
17:00	0	0	1	23	42	9	0	0	0	0	0	0	0	0	75	34	37
18:00	0	3	12	31	17	1	0	0	0	0	0	0	0	0	64	32	34
19:00	0	0	3	16	16	4	0	0	0	0	0	0	0	0	39	34	37
20:00	0	0	4	15	8	4	0	0	0	0	0	0	0	0	31	34	38
21:00	0	0	0	6	7	1	0	0	0	0	0	0	0	0	14	34	36
22:00	0	0	0	2	3	1	0	0	0	0	0	0	0	0	6	35	38
23:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	33	34
Total	0	4	57	281	564	143	12	1	0	0	0	0	0	0	1062		
Percent	0.0%	0.4%	5.4%	26.5%	53.1%	13.5%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		03:00	08:00	10:00	10:00	11:00	10:00								10:00		
Vol.		1	5	19	52	18	2								88		
PM Peak		18:00	18:00	15:00	12:00	12:00	14:00	13:00							15:00		
Vol.		3	12	32	66	18	3	1							104		

Tri-State Traffic Data, Inc.
610-466-1469
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Road: Rt. 1 NB On Ramp from Newark Rd
Location: 250 ft W of Newark Rd
Counter: 37005

Site Code: 1
Station ID:
NB On Ramp
Latitude: 39' 84524.0000 North
Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/23/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	28	29
02:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	33	34
03:00	0	0	1	2	3	0	0	0	0	0	0	0	0	0	6	33	34
04:00	0	0	3	1	5	3	0	0	0	0	0	0	0	0	12	37	39
05:00	0	0	1	8	13	6	1	0	0	0	0	0	0	0	29	37	39
06:00	0	0	10	25	50	20	2	0	0	0	0	0	0	0	107	36	39
07:00	0	0	17	19	58	26	0	0	0	0	0	0	0	0	120	36	38
08:00	0	1	2	28	48	19	4	0	0	0	0	0	0	0	102	37	39
09:00	1	1	8	21	43	16	2	0	0	0	0	0	0	0	92	36	39
10:00	1	1	3	20	28	12	2	0	0	0	0	0	0	0	67	36	39
11:00	0	3	10	24	26	17	1	0	0	0	0	0	0	0	81	36	39
12 PM	0	3	2	20	29	13	0	0	0	0	0	0	0	0	67	36	38
13:00	0	0	3	22	42	12	2	0	0	0	0	0	0	0	81	35	39
14:00	1	0	3	15	31	9	0	0	0	0	0	0	0	0	59	35	38
15:00	0	0	3	35	45	22	0	1	0	0	0	0	0	0	106	36	39
16:00	0	0	1	27	47	22	0	0	0	0	0	0	0	0	97	36	38
17:00	0	0	1	24	47	16	1	1	0	0	0	0	0	0	90	36	39
18:00	0	0	2	18	46	8	3	0	0	0	0	0	0	0	77	34	39
19:00	0	2	1	7	16	8	2	0	0	0	0	0	0	0	36	37	40
20:00	0	0	2	10	12	6	0	0	0	0	0	0	0	0	30	36	38
21:00	0	0	2	6	9	0	0	0	0	0	0	0	0	0	17	33	34
22:00	0	1	1	1	1	0	1	0	0	0	0	0	0	0	5	41	43
23:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	38	39
Total	3	12	78	335	601	236	21	2	0	0	0	0	0	0	1288		
Percent	0.2%	0.9%	6.1%	26.0%	46.7%	18.3%	1.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	07:00	08:00	07:00	07:00	08:00								07:00		
Vol.	1	3	17	28	58	26	4								120		
PM Peak	14:00	12:00	13:00	15:00	16:00	15:00	18:00	15:00							15:00		
Vol.	1	3	3	35	47	22	3	1							106		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB On Ramp from Newark Rd
Location: 250 ft W of Newark Rd
Counter: 37005

Site Code: 1
Station ID:
NB On Ramp
Latitude: 39' 84524.0000 North
Longitude: 75' 76674.0000 West

NB On Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/24/22	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	38	39
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	33	34
03:00	0	0	2	1	3	0	0	0	0	0	0	0	0	0	6	33	34
04:00	0	0	4	4	8	3	0	0	0	0	0	0	0	0	19	35	38
05:00	0	0	4	9	13	3	1	0	0	0	0	0	0	0	30	34	39
06:00	2	2	10	22	49	13	2	0	0	0	0	0	0	0	100	35	38
07:00	0	1	6	23	73	28	1	0	0	0	0	0	0	0	132	36	38
08:00	0	0	3	24	55	19	3	0	0	0	0	0	0	0	104	36	39
09:00	0	2	10	28	38	7	1	0	0	0	0	0	0	0	86	34	37
10:00	0	3	4	24	36	13	0	0	0	0	0	0	0	0	80	35	38
11:00	0	1	5	18	38	9	0	0	0	0	0	0	0	0	71	34	38
12 PM	0	4	5	17	49	18	1	0	0	0	0	0	0	0	94	36	38
13:00	0	2	9	25	39	17	2	0	0	0	0	0	0	0	94	36	39
14:00	0	0	5	25	44	13	1	0	0	0	0	0	0	0	88	35	38
15:00	0	1	7	28	50	7	1	0	0	0	0	0	0	0	94	34	37
16:00	0	0	1	19	65	13	0	0	0	0	0	0	0	0	98	34	38
17:00	0	0	3	28	48	12	0	0	0	0	0	0	0	0	91	34	38
18:00	0	0	1	18	33	11	0	0	0	0	0	0	0	0	63	35	38
19:00	0	0	4	15	22	9	0	1	0	0	0	0	0	0	51	36	39
20:00	0	0	1	8	12	5	0	0	0	0	0	0	0	0	26	36	38
21:00	0	0	1	8	10	2	0	0	0	0	0	0	0	0	21	34	37
22:00	0	0	1	4	4	0	0	0	0	0	0	0	0	0	9	33	34
23:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	33	34
Total	2	16	87	349	692	203	13	1	0	0	0	0	0	0	1363		
Percent	0.1%	1.2%	6.4%	25.6%	50.8%	14.9%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	10:00	06:00	09:00	07:00	07:00	08:00								07:00		
Vol.	2	3	10	28	73	28	3								132		
PM Peak		12:00	13:00	15:00	16:00	12:00	13:00	19:00							16:00		
Vol.		4	9	28	65	18	2	1							98		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
Location: 280 ft W of Newark Rd
Counter: 35389

Site Code: 2
Station ID:
NB Off Ramp
Latitude: 39' 84516.0000 North
Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/17/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	1	3	8	20	50	27	5	0	0	0	0	0	0	0	114	37	39
11:00	3	1	8	29	53	42	3	0	0	0	0	0	0	0	139	37	39
12 PM	1	1	11	37	52	33	3	0	0	0	0	0	0	0	138	37	39
13:00	2	2	9	29	56	25	3	0	0	0	0	0	0	0	126	36	39
14:00	4	2	9	44	69	31	2	0	0	0	0	0	0	0	161	36	39
15:00	9	1	6	52	85	22	0	0	0	0	0	0	0	0	175	34	38
16:00	0	1	8	53	75	26	2	0	0	0	0	0	0	0	165	35	38
17:00	0	1	9	32	71	31	2	2	0	0	0	0	0	0	148	37	39
18:00	0	0	5	39	60	24	7	0	0	0	0	0	0	0	135	37	40
19:00	2	0	3	24	39	7	4	1	0	0	0	0	0	0	80	35	41
20:00	0	0	2	20	31	7	1	0	0	0	0	0	0	0	61	34	38
21:00	0	0	2	11	17	3	0	1	0	0	0	0	0	0	34	34	38
22:00	0	0	1	9	13	3	0	0	0	0	0	0	0	0	26	34	37
23:00	0	0	0	2	3	2	0	0	0	0	0	0	0	0	7	37	39
Total	22	12	81	401	674	283	32	4	0	0	0	0	0	0	1509		
Percent	1.5%	0.8%	5.4%	26.6%	44.7%	18.8%	2.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	10:00	11:00	11:00	11:00	10:00								11:00		
Vol.	3	3	8	29	53	42	5								139		
PM Peak	15:00	13:00	12:00	16:00	15:00	12:00	18:00	17:00							15:00		
Vol.	9	2	11	53	85	33	7	2							175		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/18/22	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	29	29
01:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	34	34
02:00	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	33	34
03:00	1	0	2	4	4	1	0	0	0	0	0	0	0	0	12	33	36
04:00	1	0	4	19	17	4	1	0	0	0	0	0	0	0	46	34	38
05:00	1	2	7	17	37	14	3	0	0	0	0	0	0	0	81	36	39
06:00	0	0	7	51	72	38	1	0	0	0	0	0	0	0	169	36	39
07:00	11	8	21	98	136	49	5	0	0	0	0	0	0	0	328	35	38
08:00	0	2	14	35	95	41	3	0	0	0	0	0	0	0	190	36	39
09:00	0	0	9	32	53	29	0	1	0	0	0	0	0	0	124	36	39
10:00	2	1	11	40	72	29	2	0	0	0	0	0	0	0	157	36	38
11:00	1	3	17	31	59	27	3	0	0	0	0	0	0	0	141	36	39
12 PM	0	8	9	36	57	29	0	0	0	0	0	0	0	0	139	36	38
13:00	2	2	16	42	65	11	4	0	0	0	0	0	0	0	142	34	38
14:00	1	0	3	37	72	26	3	0	0	0	0	0	0	0	142	36	39
15:00	1	2	8	45	101	39	6	0	0	0	0	0	0	0	202	36	39
16:00	2	1	7	45	76	31	2	0	0	0	0	0	0	0	164	36	38
17:00	0	0	6	34	97	34	4	0	0	0	0	0	0	0	175	36	39
18:00	3	2	9	28	57	19	5	0	0	0	0	0	0	0	123	36	39
19:00	2	0	5	24	30	13	1	0	0	0	0	0	0	0	75	36	38
20:00	1	0	3	13	27	8	1	0	0	0	0	0	0	0	53	35	38
21:00	1	1	2	10	16	6	1	0	0	0	0	0	0	0	37	36	39
22:00	0	0	1	9	4	5	0	0	0	0	0	0	0	0	19	37	39
23:00	0	0	3	6	1	1	0	0	0	0	0	0	0	0	11	31	37
Total	30	32	164	660	1152	454	45	1	0	0	0	0	0	0	2538		
Percent	1.2%	1.3%	6.5%	26.0%	45.4%	17.9%	1.8%	0.0%									
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	07:00	09:00							07:00		
Vol.	11	8	21	98	136	49	5	1							328		
PM Peak	18:00	12:00	13:00	15:00	15:00	15:00	15:00								15:00		
Vol.	3	8	16	45	101	39	6								202		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
Location: 280 ft W of Newark Rd
Counter: 35389

Site Code: 2
Station ID:
NB Off Ramp
Latitude: 39' 84516.0000 North
Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/19/22	0	0	2	0	2	1	0	0	0	0	0	0	0	0	5	36	38
01:00	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3	28	29
02:00	0	1	4	1	4	0	0	0	0	0	0	0	0	0	10	33	34
03:00	0	1	0	9	5	1	1	0	0	0	0	0	0	0	17	34	40
04:00	0	0	5	20	19	2	0	0	0	0	0	0	0	0	46	33	34
05:00	1	1	13	24	43	6	0	0	0	0	0	0	0	0	88	34	36
06:00	1	2	9	36	95	23	2	0	0	0	0	0	0	0	168	34	38
07:00	1	2	19	73	129	42	2	0	0	0	0	0	0	0	268	35	38
08:00	1	2	12	61	99	41	0	0	0	0	0	0	0	0	216	36	38
09:00	0	2	7	38	54	36	4	0	0	0	0	0	0	0	141	37	39
10:00	0	3	12	50	58	23	0	0	0	0	0	0	0	0	146	35	38
11:00	1	0	8	43	67	19	3	1	0	0	0	0	0	0	142	35	39
12 PM	2	0	10	45	80	27	3	0	0	0	0	0	0	0	167	35	39
13:00	0	0	9	40	72	30	0	0	0	0	0	0	0	0	151	36	38
14:00	1	1	13	39	73	28	2	0	0	0	0	0	0	0	157	36	38
15:00	2	2	10	56	107	31	5	1	0	0	0	0	0	0	214	35	39
16:00	2	5	13	52	75	31	1	1	0	0	0	0	0	0	180	35	38
17:00	3	3	4	41	88	40	4	1	0	0	0	0	0	0	184	37	39
18:00	0	1	3	31	60	34	5	2	0	0	0	0	0	0	136	38	40
19:00	1	1	3	21	50	13	2	0	0	0	0	0	0	0	91	35	39
20:00	1	0	1	22	20	16	1	0	0	0	0	0	0	0	61	37	39
21:00	0	0	1	16	24	3	0	0	0	0	0	0	0	0	44	34	36
22:00	0	0	0	10	8	3	0	0	0	0	0	0	0	0	21	34	38
23:00	0	0	0	3	6	1	0	0	0	0	0	0	0	0	10	34	37
Total	17	28	158	733	1238	451	35	6	0	0	0	0	0	0	2666		
Percent	0.6%	1.1%	5.9%	27.5%	46.4%	16.9%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	10:00	07:00	07:00	07:00	07:00	09:00	11:00							07:00		
Vol.	1	3	19	73	129	42	4	1							268		
PM Peak	17:00	16:00	14:00	15:00	15:00	17:00	15:00	18:00							15:00		
Vol.	3	5	13	56	107	40	5	2							214		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
 Location: 280 ft W of Newark Rd
 Counter: 35389

Site Code: 2
 Station ID:
 NB Off Ramp
 Latitude: 39' 84516.0000 North
 Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/20/22	0	0	1	1	4	1	0	0	0	0	0	0	0	0	7	34	38
01:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	33	34
02:00	0	0	0	2	1	1	0	0	0	0	0	0	0	0	4	37	38
03:00	0	1	1	3	6	2	0	0	0	0	0	0	0	0	13	35	38
04:00	2	1	18	20	10	1	0	0	0	0	0	0	0	0	52	31	34
05:00	1	0	7	12	32	12	3	0	0	0	0	0	0	0	67	37	39
06:00	0	1	15	38	98	27	0	0	0	0	0	0	0	0	179	35	38
07:00	8	2	17	89	123	36	2	0	0	0	0	0	0	0	277	34	38
08:00	10	3	26	77	97	14	1	0	0	0	0	0	0	0	228	34	36
09:00	4	2	16	34	65	28	1	0	0	0	0	0	0	0	150	36	38
10:00	1	1	12	44	79	18	2	1	0	0	0	0	0	0	158	34	38
11:00	1	0	10	50	74	31	8	0	0	0	0	0	0	0	174	37	39
12 PM	1	4	15	51	89	41	1	0	0	0	0	0	0	0	202	36	38
13:00	1	1	17	80	77	25	6	0	0	0	0	0	0	0	207	34	39
14:00	0	1	16	57	95	30	4	0	0	0	0	0	0	0	203	35	38
15:00	1	4	15	42	83	43	2	0	0	0	0	0	0	0	190	36	39
16:00	0	1	5	48	89	24	2	0	0	0	0	0	0	0	169	35	38
17:00	3	7	7	37	88	29	3	2	0	0	0	0	0	0	176	36	39
18:00	1	0	5	37	86	32	3	1	0	0	0	0	0	0	165	36	39
19:00	2	0	5	32	36	15	0	0	0	0	0	0	0	0	90	35	38
20:00	1	0	3	13	23	9	1	0	0	0	0	0	0	0	50	36	39
21:00	0	0	1	7	20	4	1	0	0	0	0	0	0	0	33	35	39
22:00	0	1	0	16	11	3	0	0	0	0	0	0	0	0	31	34	37
23:00	0	0	3	6	3	0	0	0	0	0	0	0	0	0	12	32	34
Total	37	30	215	797	1291	426	40	4	0	0	0	0	0	0	2840		
Percent	1.3%	1.1%	7.6%	28.1%	45.5%	15.0%	1.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	07:00	07:00	07:00	11:00	10:00							07:00		
Vol.	10	3	26	89	123	36	8	1							277		
PM Peak	17:00	17:00	13:00	13:00	14:00	15:00	13:00	17:00							13:00		
Vol.	3	7	17	80	95	43	6	2							207		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
Location: 280 ft W of Newark Rd
Counter: 35389

Site Code: 2
Station ID:
NB Off Ramp
Latitude: 39' 84516.0000 North
Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/21/22	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	32	34
01:00	0	1	0	3	3	1	0	0	0	0	0	0	0	0	8	34	37
02:00	1	0	0	3	4	1	0	0	0	0	0	0	0	0	9	34	37
03:00	0	0	1	5	6	2	0	0	0	0	0	0	0	0	14	34	38
04:00	0	1	2	15	17	4	0	0	0	0	0	0	0	0	39	34	37
05:00	0	0	2	12	40	6	0	0	0	0	0	0	0	0	60	34	37
06:00	1	1	5	22	54	19	1	0	0	0	0	0	0	0	103	36	38
07:00	73	0	2	12	20	7	1	0	0	0	0	0	0	0	115	32	36
08:00	4	2	11	31	76	39	4	0	0	0	0	0	0	0	167	37	39
09:00	1	0	4	33	91	40	5	0	0	0	0	0	0	0	174	37	39
10:00	0	0	6	45	107	41	2	1	0	0	0	0	0	0	202	36	39
11:00	2	0	7	39	75	50	2	0	0	0	0	0	0	0	175	37	39
12 PM	2	0	10	48	91	33	4	0	0	0	0	0	0	0	188	36	39
13:00	0	0	7	28	74	32	3	0	0	0	0	0	0	0	144	37	39
14:00	1	1	3	16	67	30	2	1	0	0	0	0	0	0	121	37	39
15:00	0	4	8	29	59	32	2	0	0	0	0	0	0	0	134	37	39
16:00	0	0	2	31	69	36	4	0	0	0	0	0	0	0	142	37	39
17:00	0	0	1	16	52	30	3	1	0	0	0	0	0	0	103	38	39
18:00	0	1	4	15	40	29	5	0	0	0	0	0	0	0	94	38	40
19:00	0	0	3	9	35	18	2	0	0	0	0	0	0	0	67	37	39
20:00	0	0	2	15	32	14	2	0	0	0	0	0	0	0	65	37	39
21:00	0	0	1	10	23	5	0	0	0	0	0	0	0	0	39	34	38
22:00	0	1	2	12	16	5	1	0	0	0	0	0	0	0	37	35	39
23:00	0	0	2	8	8	2	0	0	0	0	0	0	0	0	20	34	37
Total	85	12	86	458	1060	476	43	3	0	0	0	0	0	0	2223		
Percent	3.8%	0.5%	3.9%	20.6%	47.7%	21.4%	1.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	08:00	10:00	10:00	11:00	09:00	10:00							10:00		
Vol.	73	2	11	45	107	50	5	1							202		
PM Peak	12:00	15:00	12:00	12:00	12:00	16:00	18:00	14:00							12:00		
Vol.	2	4	10	48	91	36	5	1							188		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
Location: 280 ft W of Newark Rd
Counter: 35389

Site Code: 2
Station ID:
NB Off Ramp
Latitude: 39' 84516.0000 North
Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
05/22/22	0	0	1	1	4	0	1	0	0	0	0	0	0	0	7	34	43
01:00	0	0	0	1	4	1	0	0	0	0	0	0	0	0	6	35	38
02:00	0	0	1	2	1	1	0	0	0	0	0	0	0	0	5	36	38
03:00	0	0	0	4	2	0	0	0	0	0	0	0	0	0	6	32	34
04:00	0	0	0	11	12	2	0	0	0	0	0	0	0	0	25	34	36
05:00	1	0	5	6	15	4	0	0	0	0	0	0	0	0	31	34	38
06:00	1	0	2	17	24	6	1	0	0	0	0	0	0	0	51	34	38
07:00	1	0	1	17	43	14	1	0	0	0	0	0	0	0	77	36	38
08:00	0	0	4	21	55	16	2	0	0	0	0	0	0	0	98	36	39
09:00	0	0	7	22	70	39	3	0	0	0	0	0	0	0	141	37	39
10:00	2	0	5	34	74	29	4	0	0	0	0	0	0	0	148	36	39
11:00	0	0	3	21	62	40	2	0	0	0	0	0	0	0	128	37	39
12 PM	0	0	3	27	69	23	5	0	0	0	0	0	0	0	127	36	39
13:00	0	1	2	21	57	31	2	0	0	0	0	0	0	0	114	37	39
14:00	0	0	2	21	57	38	3	1	0	0	0	0	0	0	122	38	39
15:00	2	0	4	30	52	31	2	0	0	0	0	0	0	0	121	37	39
16:00	1	0	0	24	46	21	4	0	0	0	0	0	0	0	96	37	39
17:00	1	0	4	21	51	17	3	0	0	0	0	0	0	0	97	36	39
18:00	1	2	8	35	22	3	0	0	0	0	0	0	0	0	71	33	34
19:00	2	1	0	10	26	10	1	0	0	0	0	0	0	0	50	36	39
20:00	1	0	3	13	17	3	0	0	0	0	0	0	0	0	37	34	36
21:00	0	0	2	9	21	3	1	0	0	0	0	0	0	0	36	34	38
22:00	0	0	1	8	9	1	0	0	0	0	0	0	0	0	19	33	35
23:00	0	0	0	6	4	0	0	0	0	0	0	0	0	0	10	33	34
Total	13	4	58	382	797	333	35	1	0	0	0	0	0	0	1623		
Percent	0.8%	0.2%	3.6%	23.5%	49.1%	20.5%	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00		09:00	10:00	10:00	11:00	10:00								10:00		
Vol.	2		7	34	74	40	4								148		
PM Peak	15:00	18:00	18:00	18:00	12:00	14:00	12:00	14:00							12:00		
Vol.	2	2	8	35	69	38	5	1							127		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
Location: 280 ft W of Newark Rd
Counter: 35389

Site Code: 2
Station ID:
NB Off Ramp
Latitude: 39' 84516.0000 North
Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/23/22	0	0	1	2	2	0	0	0	0	0	0	0	0	0	5	33	34
01:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	32	34
02:00	1	1	0	2	2	0	0	0	0	0	0	0	0	0	6	32	34
03:00	0	0	3	3	4	2	0	0	0	0	0	0	0	0	12	35	38
04:00	1	0	3	16	18	5	0	0	0	0	0	0	0	0	43	34	37
05:00	0	0	2	19	42	18	1	0	0	0	0	0	0	0	82	36	39
06:00	0	0	5	38	90	28	4	0	0	0	0	0	0	0	165	36	39
07:00	2	3	37	74	147	33	2	0	0	0	0	0	0	0	298	34	38
08:00	1	1	6	50	102	52	2	0	0	0	0	0	0	0	214	37	39
09:00	0	0	9	37	48	29	3	1	0	0	0	0	0	0	127	37	39
10:00	1	1	12	37	53	31	3	0	0	0	0	0	0	0	138	37	39
11:00	1	1	17	26	64	32	3	0	0	0	0	0	0	0	144	37	39
12 PM	0	0	3	31	79	38	5	0	0	0	0	0	0	0	156	37	39
13:00	0	2	10	32	50	23	6	0	0	0	0	0	0	0	123	37	39
14:00	1	0	6	29	71	35	7	0	0	0	0	0	0	0	149	37	39
15:00	3	1	11	40	85	37	1	0	0	0	0	0	0	0	178	36	38
16:00	2	3	4	36	64	31	4	0	0	0	0	0	0	0	144	37	39
17:00	2	1	13	39	74	33	1	0	0	0	0	0	0	0	163	36	38
18:00	0	0	6	20	58	24	3	0	0	0	0	0	0	0	111	37	39
19:00	0	0	5	19	39	9	1	0	0	0	0	0	0	0	73	34	38
20:00	0	0	5	18	15	11	1	0	0	0	0	0	0	0	50	37	39
21:00	0	1	1	7	13	9	0	0	0	0	0	0	0	0	31	37	39
22:00	0	0	2	5	12	5	0	0	0	0	0	0	0	0	24	36	38
23:00	0	0	0	4	2	0	0	0	0	0	0	0	0	0	6	32	34
Total	15	15	162	585	1135	485	47	1	0	0	0	0	0	0	2445		
Percent	0.6%	0.6%	6.6%	23.9%	46.4%	19.8%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	07:00	08:00	06:00	09:00							07:00		
Vol.	2	3	37	74	147	52	4	1							298		
PM Peak	15:00	16:00	17:00	15:00	15:00	12:00	14:00								15:00		
Vol.	3	3	13	40	85	38	7								178		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
Location: 280 ft W of Newark Rd
Counter: 35389

Site Code: 2
Station ID:
NB Off Ramp
Latitude: 39' 84516.0000 North
Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	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	76	999	Total	85th Percent	95th Percent
05/24/22	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	37	39	
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	29	29	
02:00	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	33	34	
03:00	0	0	3	3	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	34	38	
04:00	0	0	2	25	14	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	34	38	
05:00	0	1	3	9	36	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	36	39	
06:00	1	0	6	44	85	23	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	35	38	
07:00	4	6	19	89	137	37	4	0	296	34	38																			
08:00	3	1	15	51	84	41	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	202	37	39	
09:00	0	0	5	45	64	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137	35	38	
10:00	1	2	10	31	49	22	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	37	39	
11:00	0	5	17	33	49	24	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	129	36	38	
12 PM	3	0	11	24	46	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	35	38	
13:00	4	1	14	44	56	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137	34	38	
14:00	0	4	8	45	66	29	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	36	39	
15:00	0	1	6	48	88	36	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183	36	39	
16:00	3	0	6	36	78	21	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146	35	38	
17:00	4	1	7	44	87	41	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191	37	39	
18:00	0	0	7	25	59	25	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119	37	39	
19:00	1	0	2	17	36	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	36	38	
20:00	0	0	2	18	24	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	36	39	
21:00	0	0	1	8	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	35	38	
22:00	0	0	1	7	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	36	38	
23:00	0	0	0	2	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	37	39	
Total	25	22	146	649	1088	408	39	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2380			
Percent	1.1%	0.9%	6.1%	27.3%	45.7%	17.1%	1.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak	07:00	07:00	07:00	07:00	07:00	08:00	08:00	08:00																				07:00		
Vol.	4	6	19	89	137	41	6	1																			296			
PM Peak	13:00	14:00	13:00	15:00	15:00	17:00	17:00	15:00																				17:00		
Vol.	4	4	14	48	88	41	6	1																			191			

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Rt. 1 NB Off Ramp to Newark Rd
Location: 280 ft W of Newark Rd
Counter: 35389

Site Code: 2
Station ID:
NB Off Ramp
Latitude: 39' 84516.0000 North
Longitude: 75' 76679.0000 West

NB Off Ramp

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/25/22	0	1	0	0	1	1	0	0	0	0	0	0	0	0	3	37	39
01:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	44	44
02:00	0	0	0	1	4	0	0	0	0	0	0	0	0	0	5	34	34
03:00	0	0	0	1	5	3	1	0	0	0	0	0	0	0	10	39	42
04:00	1	0	3	21	15	5	1	0	0	0	0	0	0	0	46	34	38
05:00	1	3	5	19	48	19	2	0	0	0	0	0	0	0	97	36	39
06:00	1	3	5	38	92	36	1	0	0	0	0	0	0	0	176	36	38
07:00	3	9	34	84	135	48	3	0	0	0	0	0	0	0	316	35	38
08:00	3	4	14	61	113	29	4	0	0	0	0	0	0	0	228	34	38
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	9	20	61	225	413	141	13	0	0	0	0	0	0	0	882		
Percent	1.0%	2.3%	6.9%	25.5%	46.8%	16.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	08:00								07:00		
Vol.	3	9	34	84	135	48	4								316		

PM Peak																	
Vol.																	
Total	253	175	1131	4890	8848	3457	329	23	0	0	0	0	0	0	0	19106	
Percent	1.3%	0.9%	5.9%	25.6%	46.3%	18.1%	1.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		

15th Percentile : 26 MPH
50th Percentile : 31 MPH
85th Percentile : 36 MPH
95th Percentile : 39 MPH

Stats
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 13738
Percent in Pace : 71.9%
Number of Vehicles > 45 MPH : 23
Percent of Vehicles > 45 MPH : 0.1%
Mean Speed(Average) : 32 MPH

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
Counter: 22684

Site Code: 1
Station ID:
A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/02/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	8	0	1	8	54	67	38	13	0	1	0	0	0	0	190	43	46
10:00	9	0	3	17	39	43	31	19	2	1	0	0	0	0	164	44	48
11:00	9	0	8	20	41	75	40	11	4	1	1	0	0	0	210	43	47
12 PM	10	0	4	28	79	64	39	7	2	0	0	0	0	0	233	41	44
13:00	6	0	3	19	67	68	43	9	1	0	0	0	0	0	216	42	44
14:00	7	0	6	25	72	78	46	10	3	0	0	0	0	0	247	42	45
15:00	8	2	23	27	94	82	48	22	3	1	0	0	0	0	310	42	47
16:00	12	0	8	39	88	112	61	16	3	0	0	0	0	0	339	42	45
17:00	17	2	10	33	101	89	59	9	2	1	0	0	0	0	323	41	44
18:00	3	3	2	23	73	71	43	9	1	0	0	0	0	0	228	42	44
19:00	4	0	0	11	32	48	26	8	3	0	0	0	0	0	132	43	47
20:00	2	2	7	12	24	25	27	9	2	0	0	0	0	0	110	43	48
21:00	1	0	2	7	17	25	17	9	1	0	0	0	0	0	79	44	48
22:00	0	0	2	2	14	15	16	10	1	1	0	0	0	0	61	46	49
23:00	0	0	0	3	4	5	4	2	1	1	0	0	0	0	20	47	55
Total	96	9	79	274	799	867	538	163	29	7	1	0	0	0	2862		
Percent	3.4%	0.3%	2.8%	9.6%	27.9%	30.3%	18.8%	5.7%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00		11:00	11:00	09:00	11:00	11:00	10:00	11:00	09:00	11:00				11:00		
Vol.	9		8	20	54	75	40	19	4	1	1				210		
PM Peak	17:00	18:00	15:00	16:00	17:00	16:00	16:00	15:00	14:00	15:00					16:00		
Vol.	17	3	23	39	101	112	61	22	3	1					339		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
Counter: 22684

Site Code: 1
Station ID:
A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/03/22	0	0	0	1	1	2	2	0	3	0	0	0	0	0	9	52	54
01:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	43	44
02:00	0	0	0	2	1	4	1	1	1	0	0	0	0	0	10	47	52
03:00	0	0	0	1	5	6	5	1	0	0	0	0	0	0	18	43	45
04:00	0	0	2	5	9	7	8	7	3	2	0	0	0	0	43	48	54
05:00	2	0	1	9	19	22	13	9	2	0	0	0	0	0	77	44	48
06:00	4	0	2	3	36	49	47	21	9	0	0	0	0	0	171	46	50
07:00	7	0	2	18	69	103	81	24	4	1	1	0	0	0	310	43	48
08:00	2	0	12	37	31	68	43	12	9	3	0	0	0	0	217	44	50
09:00	5	2	6	24	47	50	34	8	1	0	0	0	0	0	177	42	45
10:00	3	1	7	10	62	52	33	15	1	0	0	0	0	0	184	43	47
11:00	18	0	6	18	92	70	30	18	2	0	0	1	0	0	255	42	47
12 PM	10	1	6	49	107	74	35	7	5	0	0	0	0	0	294	40	44
13:00	13	4	6	29	79	82	42	11	2	0	0	0	0	0	268	41	44
14:00	9	0	8	21	89	100	42	9	1	0	0	0	0	0	279	41	44
15:00	8	4	8	17	128	108	45	17	4	0	0	0	0	0	339	41	46
16:00	20	2	8	35	117	116	64	18	2	0	0	0	0	0	382	42	45
17:00	14	0	3	16	90	101	49	13	2	0	0	0	0	0	288	42	45
18:00	8	1	3	22	54	98	51	25	2	2	0	2	0	0	268	44	48
19:00	6	0	0	6	39	58	40	16	7	1	0	0	0	0	173	44	49
20:00	6	0	0	2	32	58	25	11	3	0	0	0	0	0	137	43	48
21:00	4	0	4	7	40	40	20	9	2	1	0	0	0	0	127	43	48
22:00	1	1	2	4	19	20	13	3	3	0	0	0	0	0	66	43	49
23:00	1	0	2	6	9	4	7	1	2	0	0	0	0	1	33	43	50
Total	141	16	88	342	1175	1293	731	256	70	10	1	3	0	1	4127		
Percent	3.4%	0.4%	2.1%	8.3%	28.5%	31.3%	17.7%	6.2%	1.7%	0.2%	0.0%	0.1%	0.0%	0.0%			
AM Peak	11:00	09:00	08:00	08:00	11:00	07:00	07:00	07:00	06:00	08:00	07:00	11:00			07:00		
Vol.	18	2	12	37	92	103	81	24	9	3	1	1			310		
PM Peak	16:00	13:00	14:00	12:00	15:00	16:00	16:00	18:00	19:00	18:00		18:00		23:00	16:00		
Vol.	20	4	8	49	128	116	64	25	7	2		2		1	382		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/04/22	0	0	0	0	2	6	8	3	0	0	0	0	0	0	19	45	48
01:00	0	0	0	0	1	5	2	1	2	1	0	0	0	0	12	53	56
02:00	0	0	0	0	2	3	2	2	0	0	0	0	0	0	9	46	48
03:00	0	0	0	0	1	3	3	1	0	0	0	0	0	0	8	44	47
04:00	0	0	1	7	6	10	10	1	2	0	0	0	0	0	37	43	50
05:00	0	0	0	4	13	10	12	4	3	1	0	0	0	0	47	46	52
06:00	1	0	2	6	13	25	8	7	2	0	0	0	0	0	64	44	49
07:00	2	1	0	13	26	44	24	15	2	0	0	0	0	0	127	44	48
08:00	3	0	1	12	44	36	31	6	3	2	0	0	0	0	138	43	48
09:00	7	0	0	7	44	58	41	16	2	0	0	0	0	0	175	43	47
10:00	7	2	2	28	56	65	34	22	2	0	0	0	0	0	218	43	47
11:00	9	3	7	16	64	67	39	16	1	0	0	0	0	0	222	42	46
12 PM	9	1	6	19	73	78	47	10	0	0	1	0	0	0	244	42	44
13:00	8	0	5	16	61	76	48	17	2	0	0	0	0	0	233	43	47
14:00	5	0	1	11	65	72	63	16	4	2	0	0	0	0	239	43	48
15:00	6	0	1	7	47	80	55	16	4	0	0	0	0	0	216	43	47
16:00	4	0	0	8	43	69	57	27	4	3	0	0	0	0	215	45	49
17:00	16	0	3	28	52	59	50	15	1	2	0	0	0	0	226	43	47
18:00	10	1	1	15	36	67	41	15	5	1	0	0	0	0	192	44	48
19:00	5	2	1	12	41	27	24	16	2	0	0	0	0	0	130	44	48
20:00	1	0	1	5	26	34	27	10	1	0	0	0	0	0	105	44	47
21:00	2	0	1	6	20	34	16	10	1	0	0	0	0	0	90	44	48
22:00	2	0	0	12	14	13	9	8	2	0	0	0	0	0	60	45	49
23:00	1	0	2	1	10	17	13	12	0	0	0	0	0	0	56	46	48
Total	98	10	35	233	760	958	664	266	45	12	1	0	0	0	3082		
Percent	3.2%	0.3%	1.1%	7.6%	24.7%	31.1%	21.5%	8.6%	1.5%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	10:00	11:00	11:00	09:00	10:00	05:00	08:00					11:00		
Vol.	9	3	7	28	64	67	41	22	3	2					222		
PM Peak	17:00	19:00	12:00	17:00	12:00	15:00	14:00	16:00	18:00	16:00	12:00				12:00		
Vol.	16	2	6	28	73	80	63	27	5	3	1				244		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/05/22	0	0	0	0	8	5	7	2	2	0	0	0	0	0	24	45	51
01:00	0	0	0	1	3	3	7	0	2	2	0	0	0	0	18	53	57
02:00	0	0	0	0	2	2	5	1	0	0	0	0	0	0	10	44	47
03:00	0	0	0	1	5	1	5	2	0	1	0	0	0	0	15	46	56
04:00	0	0	0	6	4	6	1	3	0	0	0	0	0	0	20	45	48
05:00	0	0	2	1	12	3	10	3	3	1	0	0	0	0	35	47	53
06:00	1	1	0	1	10	15	13	3	2	1	0	0	0	0	47	44	51
07:00	0	0	0	5	17	19	22	11	2	0	0	0	0	0	76	45	49
08:00	1	0	3	2	23	19	28	10	7	0	0	0	0	0	93	46	51
09:00	3	0	0	6	32	33	27	21	4	0	0	0	0	0	126	46	49
10:00	8	0	0	8	43	43	36	21	3	1	0	0	0	0	163	45	49
11:00	8	1	1	8	39	60	47	19	4	1	0	0	0	0	188	44	48
12 PM	7	0	0	5	44	60	55	27	7	0	0	0	0	0	205	45	49
13:00	7	0	0	9	72	75	60	23	4	2	1	0	0	0	253	44	48
14:00	16	0	2	6	42	53	49	18	4	1	0	0	0	0	191	44	48
15:00	5	0	1	10	42	67	61	18	2	0	0	0	0	0	206	44	47
16:00	5	1	4	9	54	64	57	23	4	0	0	0	0	0	221	44	48
17:00	3	0	0	9	55	65	45	21	1	0	0	0	0	0	199	44	47
18:00	4	0	3	13	35	45	43	21	3	0	0	0	0	0	167	44	48
19:00	4	0	0	15	39	52	41	16	2	0	0	0	0	0	169	44	47
20:00	2	0	3	4	21	31	18	10	2	1	0	0	0	0	92	44	49
21:00	3	0	3	4	10	28	19	11	4	1	0	1	0	0	84	46	52
22:00	0	0	1	0	7	16	3	5	1	1	0	0	0	0	34	46	51
23:00	0	0	0	3	5	6	7	1	0	0	0	0	0	0	22	43	44
Total	77	3	23	126	624	771	666	290	63	13	1	1	0	0	2658		
Percent	2.9%	0.1%	0.9%	4.7%	23.5%	29.0%	25.1%	10.9%	2.4%	0.5%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	06:00	08:00	10:00	10:00	11:00	11:00	09:00	08:00	01:00					11:00		
Vol.	8	1	3	8	43	60	47	21	7	2					188		
PM Peak	14:00	16:00	16:00	19:00	13:00	13:00	15:00	12:00	12:00	13:00	13:00	21:00			13:00		
Vol.	16	1	4	15	72	75	61	27	7	2	1	1			253		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
Counter: 22684

Site Code: 1
Station ID:
A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/06/22	0	0	0	0	0	1	2	2	1	0	0	0	0	0	6	50	53
01:00	0	0	0	1	2	1	1	2	2	1	0	0	0	0	10	53	57
02:00	0	0	0	1	2	1	1	0	0	0	0	0	0	0	5	41	43
03:00	0	1	0	2	4	4	8	0	0	0	0	1	0	0	20	43	65
04:00	0	0	2	4	7	12	6	1	3	0	0	0	0	0	35	43	52
05:00	1	0	0	4	24	22	15	12	7	1	0	0	0	0	86	47	52
06:00	3	0	2	5	34	51	53	21	3	0	0	0	0	0	172	44	48
07:00	10	0	9	23	72	102	81	21	4	1	0	0	0	0	323	43	47
08:00	12	2	4	24	63	72	55	16	1	1	0	0	0	0	250	43	46
09:00	15	4	5	14	39	67	41	8	2	0	0	0	0	0	195	42	45
10:00	7	0	8	15	54	56	40	10	1	0	0	0	0	0	191	42	45
11:00	3	4	5	3	53	78	35	14	2	0	0	0	0	0	197	43	47
12 PM	11	0	7	19	54	73	44	12	2	0	0	0	0	0	222	42	46
13:00	6	0	6	19	54	76	52	18	0	0	0	0	0	0	231	43	46
14:00	8	1	9	29	63	91	50	15	2	1	0	0	0	0	269	42	46
15:00	14	5	12	23	93	100	43	16	4	1	0	0	0	0	311	42	46
16:00	11	0	0	11	76	85	66	18	3	0	0	0	0	0	270	43	47
17:00	11	0	3	21	74	100	48	19	2	1	0	0	0	0	279	42	47
18:00	3	0	2	18	51	74	43	18	3	0	0	0	0	0	212	43	47
19:00	6	2	3	4	27	41	24	9	2	0	0	0	0	0	118	43	47
20:00	1	0	6	5	42	34	17	7	1	0	0	0	0	0	113	42	46
21:00	0	0	0	5	23	33	20	4	2	0	0	0	0	0	87	43	47
22:00	1	0	0	1	10	13	9	7	3	0	0	0	0	0	44	47	51
23:00	1	0	0	1	2	11	2	3	0	0	0	0	0	0	20	45	48
Total	124	19	83	252	923	1198	756	253	50	7	0	1	0	0	3666		
Percent	3.4%	0.5%	2.3%	6.9%	25.2%	32.7%	20.6%	6.9%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	07:00	08:00	07:00	07:00	07:00	06:00	05:00	01:00		03:00			07:00		
Vol.	15	4	9	24	72	102	81	21	7	1		1			323		
PM Peak	15:00	15:00	15:00	14:00	15:00	15:00	16:00	17:00	15:00	14:00					15:00		
Vol.	14	5	12	29	93	100	66	19	4	1					311		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/07/22	0	0	0	2	2	1	2	3	2	0	1	0	0	0	13	52	61
01:00	1	0	0	3	1	0	0	1	1	0	0	0	0	0	7	49	53
02:00	0	0	0	1	1	2	1	2	2	0	0	0	0	0	9	51	53
03:00	0	0	0	0	1	7	3	3	0	0	0	0	0	0	14	46	48
04:00	0	0	0	4	8	5	8	4	4	0	0	0	0	0	33	48	52
05:00	2	0	0	5	21	25	23	11	5	1	0	0	0	0	93	46	51
06:00	5	1	2	11	42	67	43	38	4	1	1	0	0	0	215	46	49
07:00	41	0	35	21	51	104	93	28	3	1	0	0	0	1	378	43	47
08:00	13	0	4	11	52	76	52	22	3	1	1	0	0	0	235	44	48
09:00	8	4	4	12	47	54	35	14	1	1	0	0	0	0	180	43	47
10:00	4	0	4	20	33	53	33	14	3	0	0	0	0	0	164	43	48
11:00	4	4	11	24	59	64	32	14	2	0	0	0	0	0	214	42	46
12 PM	6	0	1	11	59	52	38	16	1	0	0	0	0	0	184	43	47
13:00	12	0	3	24	49	62	35	10	5	1	0	0	0	0	201	42	47
14:00	13	1	6	26	85	80	36	11	2	0	0	0	0	0	260	41	44
15:00	10	0	6	32	71	109	61	14	1	0	0	0	0	0	304	42	44
16:00	9	0	0	17	89	113	65	27	4	0	0	0	0	0	324	43	47
17:00	6	0	4	27	102	99	54	20	2	0	0	0	0	0	314	42	46
18:00	10	3	3	16	62	81	47	8	3	0	0	0	0	0	233	42	44
19:00	2	2	8	30	41	49	20	10	1	0	0	0	0	0	163	41	46
20:00	1	0	1	15	42	21	14	3	1	0	0	0	0	0	98	41	44
21:00	1	0	2	21	27	31	11	5	0	0	0	0	0	0	98	40	45
22:00	0	0	1	7	22	19	14	2	1	0	0	0	0	0	66	42	44
23:00	0	0	0	1	6	2	4	3	1	0	0	0	0	0	17	47	50
Total	148	15	95	341	973	1176	724	283	52	6	3	0	0	1	3817		
Percent	3.9%	0.4%	2.5%	8.9%	25.5%	30.8%	19.0%	7.4%	1.4%	0.2%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	07:00	11:00	11:00	07:00	07:00	06:00	05:00	05:00	00:00			07:00	07:00		
Vol.	41	4	35	24	59	104	93	38	5	1	1			1	378		
PM Peak	14:00	18:00	19:00	15:00	17:00	16:00	16:00	16:00	13:00	13:00					16:00		
Vol.	13	3	8	32	102	113	65	27	5	1					324		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
Counter: 22684

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A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/08/22	0	0	0	0	1	5	5	2	1	0	0	0	0	0	14	47	51
01:00	0	0	0	0	3	0	0	1	0	0	0	0	0	0	4	47	48
02:00	0	0	0	0	1	1	1	1	1	0	0	0	0	0	5	51	53
03:00	0	0	0	0	2	4	1	0	0	0	0	0	0	0	7	39	43
04:00	1	0	2	7	7	10	7	5	0	1	0	0	0	0	40	45	49
05:00	1	0	1	8	14	27	25	14	4	1	2	0	0	0	97	47	52
06:00	6	0	2	11	24	69	60	27	3	2	1	0	0	0	205	45	49
07:00	11	3	5	18	64	93	102	31	4	1	0	0	0	0	332	44	48
08:00	8	1	3	16	54	62	63	20	8	0	0	0	0	0	235	44	49
09:00	6	1	5	15	44	47	33	9	2	1	0	0	0	0	163	43	47
10:00	8	0	3	20	60	51	32	14	1	0	0	0	0	0	189	42	46
11:00	2	2	5	21	42	70	22	17	2	1	1	0	0	0	185	43	48
12 PM	7	0	5	15	52	47	48	12	4	1	0	0	0	0	191	43	48
13:00	10	0	4	23	68	56	37	13	0	1	0	0	0	0	212	42	46
14:00	3	1	3	17	62	55	56	18	2	0	0	0	0	0	217	43	47
15:00	16	11	10	25	71	108	61	20	3	1	1	0	0	0	327	43	47
16:00	7	0	0	17	91	124	62	12	3	0	0	0	0	0	316	42	44
17:00	7	5	4	22	92	105	66	15	1	1	0	0	0	0	318	42	45
18:00	9	1	7	11	52	75	40	17	2	1	1	0	0	0	216	43	47
19:00	4	1	4	16	24	43	32	9	7	0	0	0	0	0	140	44	49
20:00	1	0	0	11	26	38	28	9	4	0	0	0	0	0	117	44	48
21:00	2	1	3	11	25	28	24	5	2	1	0	0	0	0	102	43	47
22:00	0	2	0	10	15	25	13	1	1	0	0	0	0	0	67	41	44
23:00	0	0	0	2	4	11	4	1	1	0	0	0	0	0	23	43	49
Total	109	29	66	296	898	1154	822	273	56	13	6	0	0	0	3722		
Percent	2.9%	0.8%	1.8%	8.0%	24.1%	31.0%	22.1%	7.3%	1.5%	0.3%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	11:00	07:00	07:00	07:00	07:00	08:00	06:00	05:00				07:00		
Vol.	11	3	5	21	64	93	102	31	8	2	2				332		
PM Peak	15:00	15:00	15:00	15:00	17:00	16:00	17:00	15:00	19:00	12:00	15:00				15:00		
Vol.	16	11	10	25	92	124	66	20	7	1	1				327		

Tri-State Traffic Data, Inc.
610-466-1469
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Latitude: 39' 84675.0000 North
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NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/09/22	0	0	0	0	5	5	3	1	1	0	0	0	0	0	15	44	51
01:00	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	53	54
02:00	0	0	0	0	3	1	1	2	0	0	0	0	0	0	7	47	49
03:00	0	0	1	2	5	3	0	0	0	0	0	0	0	0	11	37	39
04:00	0	0	3	5	14	8	3	5	1	0	0	0	0	0	39	45	49
05:00	1	0	0	5	23	22	16	11	5	1	0	0	0	0	84	46	51
06:00	11	1	3	7	31	53	55	21	5	1	0	0	0	0	188	44	49
07:00	2	1	0	12	67	103	77	28	3	0	0	0	0	0	293	44	47
08:00	12	0	5	22	40	76	54	23	5	1	0	0	0	0	238	44	48
09:00	8	2	7	10	58	62	27	13	1	1	0	0	0	0	189	42	47
10:00	5	1	0	12	50	60	33	13	3	0	0	0	0	0	177	43	47
11:00	18	0	7	19	51	58	29	13	2	0	0	0	1	0	198	42	47
12 PM	4	0	4	13	40	77	29	20	2	1	0	0	0	0	190	44	48
13:00	9	1	15	11	48	67	48	13	2	3	0	0	0	0	217	43	47
14:00	8	0	1	20	67	80	45	10	1	0	1	1	0	0	234	42	45
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	78	6	46	138	502	675	420	174	32	8	1	1	1	0	2082		
Percent	3.7%	0.3%	2.2%	6.6%	24.1%	32.4%	20.2%	8.4%	1.5%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	09:00	09:00	08:00	07:00	07:00	07:00	07:00	05:00	05:00			11:00		07:00		
Vol.	18	2	7	22	67	103	77	28	5	1			1		293		
PM Peak	13:00	13:00	13:00	14:00	14:00	14:00	13:00	12:00	12:00	13:00	14:00	14:00			14:00		
Vol.	9	1	15	20	67	80	48	20	2	3	1	1			234		
Total	871	107	515	2002	6654	8092	5321	1958	397	76	14	6	1	2	26016		
Percent	3.3%	0.4%	2.0%	7.7%	25.6%	31.1%	20.5%	7.5%	1.5%	0.3%	0.1%	0.0%	0.0%	0.0%			

15th Percentile : 30 MPH
50th Percentile : 36 MPH
85th Percentile : 43 MPH
95th Percentile : 47 MPH

Stats
10 MPH Pace Speed : 31-40 MPH
Number in Pace : 14746
Percent in Pace : 56.7%
Number of Vehicles > 40 MPH : 7775
Percent of Vehicles > 40 MPH : 29.9%
Mean Speed(Average) : 37 MPH

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
Counter: 22684

Site Code: 1
Station ID:
A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/02/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	29	1	1	9	36	51	19	7	1	0	0	0	0	0	154	41	45
10:00	27	2	5	12	26	31	24	25	2	0	0	0	0	0	154	45	48
11:00	12	1	7	14	29	42	36	16	3	0	0	0	0	0	160	44	48
12 PM	12	3	8	15	45	39	37	14	5	1	0	0	0	0	179	44	48
13:00	11	5	11	17	50	52	35	20	4	2	0	0	0	0	207	44	48
14:00	12	2	1	12	41	52	54	21	5	0	0	0	0	0	200	44	48
15:00	18	2	3	7	44	69	60	27	8	1	0	0	0	0	239	45	49
16:00	30	0	2	12	51	76	72	27	3	1	0	0	0	0	274	44	48
17:00	25	0	4	17	60	76	68	23	4	0	0	0	0	0	277	43	47
18:00	23	0	2	10	49	47	30	12	2	0	1	0	0	0	176	43	47
19:00	9	0	0	9	29	41	20	15	3	0	0	0	0	0	126	44	48
20:00	11	0	2	10	24	18	17	3	3	0	0	0	0	0	88	42	47
21:00	7	0	1	3	21	14	14	5	3	1	0	0	0	0	69	44	50
22:00	2	0	1	5	17	9	5	3	0	0	0	0	0	0	42	41	46
23:00	4	0	0	6	8	8	4	3	1	0	0	0	0	0	34	43	48
Total	232	16	48	158	530	625	495	221	47	6	1	0	0	0	2379		
Percent	9.8%	0.7%	2.0%	6.6%	22.3%	26.3%	20.8%	9.3%	2.0%	0.3%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	11:00	11:00	09:00	09:00	11:00	10:00	11:00						11:00		
Vol.	29	2	7	14	36	51	36	25	3						160		
PM Peak	16:00	13:00	13:00	13:00	17:00	16:00	16:00	15:00	15:00	13:00	18:00				17:00		
Vol.	30	5	11	17	60	76	72	27	8	2	1				277		

Tri-State Traffic Data, Inc.
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Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/03/22	2	0	0	0	4	1	1	0	0	0	0	0	0	0	8	38	42
01:00	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	44	44
02:00	1	0	0	2	2	2	0	0	0	1	0	0	0	0	8	39	57
03:00	1	0	0	2	0	0	2	3	0	0	0	0	0	0	8	48	49
04:00	5	1	1	4	5	6	3	4	1	1	0	0	0	0	31	46	52
05:00	11	0	2	1	10	6	6	8	0	1	0	0	0	0	45	46	49
06:00	36	0	4	5	11	13	21	17	7	1	0	0	0	0	115	47	51
07:00	48	0	1	11	29	26	30	11	7	1	0	0	0	0	164	44	49
08:00	43	0	0	7	22	33	33	19	4	0	0	0	0	0	161	44	48
09:00	42	1	3	11	38	35	29	10	0	0	0	0	0	0	169	42	45
10:00	24	1	2	13	33	30	34	13	2	1	0	0	0	0	153	43	48
11:00	30	1	6	17	45	50	36	15	3	0	0	0	0	0	203	43	47
12 PM	24	0	9	13	29	49	51	20	7	1	0	0	0	0	203	44	49
13:00	24	0	1	7	37	34	41	28	7	0	0	0	0	0	179	46	49
14:00	15	0	2	15	49	63	54	28	3	0	0	0	0	0	229	44	48
15:00	19	0	4	21	54	75	59	24	5	0	0	1	0	0	262	44	48
16:00	17	0	2	9	44	71	65	42	3	1	0	1	0	0	255	46	49
17:00	22	0	1	10	36	87	65	38	5	1	0	0	0	0	265	45	49
18:00	16	0	2	6	46	67	53	30	11	0	0	0	0	0	231	46	49
19:00	9	0	0	10	44	48	38	24	3	0	0	0	0	0	176	45	48
20:00	10	0	0	8	38	43	21	7	3	0	0	0	0	0	130	42	47
21:00	10	0	0	6	35	23	15	8	2	0	0	0	0	0	99	43	48
22:00	10	0	0	5	19	17	9	3	1	0	0	0	0	0	64	41	46
23:00	2	0	0	7	12	8	5	3	0	0	0	0	0	0	37	42	46
Total	421	4	40	190	642	787	674	355	74	9	0	2	0	0	3198		
Percent	13.2%	0.1%	1.3%	5.9%	20.1%	24.6%	21.1%	11.1%	2.3%	0.3%	0.0%	0.1%	0.0%	0.0%			
AM Peak	07:00	04:00	11:00	11:00	11:00	11:00	11:00	08:00	06:00	02:00					11:00		
Vol.	48	1	6	17	45	50	36	19	7	1					203		
PM Peak	12:00		12:00	15:00	15:00	17:00	16:00	16:00	18:00	12:00		15:00			17:00		
Vol.	24		9	21	54	87	65	42	11	1		1			265		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

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 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/04/22	1	0	0	2	6	3	3	1	2	1	0	0	0	0	19	50	55
01:00	1	0	1	2	4	5	4	2	0	0	0	0	0	0	19	43	47
02:00	0	0	0	1	0	3	0	2	0	0	0	0	0	0	6	47	49
03:00	0	0	0	2	0	1	2	0	2	1	0	0	0	0	8	54	57
04:00	0	0	1	4	5	6	4	5	0	0	0	0	0	0	25	46	48
05:00	0	0	0	1	4	5	9	7	4	0	0	0	0	0	30	49	53
06:00	2	0	0	5	6	12	9	14	8	1	0	0	0	0	57	50	53
07:00	4	0	1	8	17	16	18	12	2	0	0	0	0	0	78	45	49
08:00	13	2	1	8	20	30	39	11	1	0	0	0	0	0	125	44	47
09:00	37	1	1	11	15	20	21	15	5	0	0	0	0	0	126	45	49
10:00	34	0	2	14	31	44	28	21	1	0	0	0	0	0	175	44	48
11:00	24	0	1	9	36	66	43	22	4	0	0	0	0	0	205	44	48
12 PM	16	0	2	7	42	51	47	21	6	1	0	0	0	0	193	44	49
13:00	22	1	0	8	38	52	31	25	3	2	0	0	0	0	182	45	49
14:00	5	0	2	6	27	38	40	27	7	3	0	0	0	0	155	47	51
15:00	15	0	3	9	28	47	37	45	11	2	0	0	0	0	197	48	51
16:00	6	0	0	6	34	48	45	26	7	1	0	0	0	0	173	46	49
17:00	11	0	0	9	26	50	40	25	9	1	0	0	0	0	171	46	50
18:00	8	0	0	4	32	29	42	15	7	1	0	1	0	0	139	46	51
19:00	7	0	2	5	20	25	24	14	1	0	0	0	0	0	98	45	48
20:00	14	0	0	6	28	23	28	8	4	1	0	0	0	0	112	44	49
21:00	5	0	2	9	32	18	15	9	2	1	0	0	0	0	93	44	49
22:00	6	1	0	13	10	14	14	6	0	0	0	0	0	0	64	43	47
23:00	5	0	0	3	8	7	6	0	1	0	0	0	0	0	30	42	44
Total	236	5	19	152	469	613	549	333	87	16	0	1	0	0	2480		
Percent	9.5%	0.2%	0.8%	6.1%	18.9%	24.7%	22.1%	13.4%	3.5%	0.6%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	08:00	10:00	10:00	11:00	11:00	11:00	11:00	06:00	00:00					11:00		
Vol.	37	2	2	14	36	66	43	22	8	1					205		
PM Peak	13:00	13:00	15:00	22:00	12:00	13:00	12:00	15:00	15:00	14:00		18:00			15:00		
Vol.	22	1	3	13	42	52	47	45	11	3		1		197			

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/05/22	0	0	0	1	10	9	8	0	0	1	0	0	0	0	29	42	44
01:00	0	0	0	1	3	2	2	2	0	0	0	0	0	0	10	46	48
02:00	0	0	0	1	0	1	1	0	1	0	0	0	0	0	4	52	54
03:00	1	0	0	1	1	1	0	1	0	0	0	0	0	0	5	46	48
04:00	0	0	0	2	5	3	5	4	2	0	0	0	0	0	21	48	52
05:00	0	0	0	2	4	3	9	3	3	1	0	0	0	0	25	50	54
06:00	2	0	1	0	4	4	8	5	0	0	0	0	0	0	24	46	48
07:00	0	2	1	5	7	10	7	6	3	0	0	0	0	0	41	47	51
08:00	1	0	0	6	9	21	43	18	4	0	0	0	0	0	102	46	49
09:00	16	2	0	11	19	34	23	12	4	0	0	0	0	0	121	44	49
10:00	39	0	0	6	29	28	29	21	6	0	0	0	0	0	158	45	49
11:00	28	0	1	3	27	32	35	22	2	1	0	0	0	0	151	45	48
12 PM	32	0	0	12	35	49	38	24	1	0	0	0	0	0	191	44	48
13:00	18	0	1	15	42	48	43	27	4	0	0	0	0	0	198	45	48
14:00	7	1	1	6	46	78	70	32	4	2	0	0	0	0	247	45	49
15:00	4	0	0	10	50	53	45	25	7	1	0	0	0	0	195	45	49
16:00	5	1	1	4	33	34	42	32	6	1	0	0	0	0	159	47	49
17:00	9	0	0	10	38	50	34	14	5	2	1	0	0	0	163	44	49
18:00	2	0	2	10	24	28	27	10	3	0	1	0	0	0	107	44	49
19:00	7	0	0	9	23	33	30	12	3	0	0	0	0	0	117	44	48
20:00	15	0	2	6	22	14	15	7	1	0	1	0	0	0	83	43	48
21:00	11	0	0	9	13	21	16	11	0	0	0	0	0	0	81	44	48
22:00	5	0	1	2	9	8	3	1	1	1	1	0	0	0	32	43	57
23:00	1	0	0	2	3	2	5	0	0	0	0	0	0	0	13	43	44
Total	203	6	11	134	456	566	538	289	60	10	4	0	0	0	2277		
Percent	8.9%	0.3%	0.5%	5.9%	20.0%	24.9%	23.6%	12.7%	2.6%	0.4%	0.2%	0.0%	0.0%	0.0%			
AM Peak	10:00	07:00	06:00	09:00	10:00	09:00	08:00	11:00	10:00	00:00					10:00		
Vol.	39	2	1	11	29	34	43	22	6	1					158		
PM Peak	12:00	14:00	18:00	13:00	15:00	14:00	14:00	14:00	15:00	14:00	17:00				14:00		
Vol.	32	1	2	15	50	78	70	32	7	2	1				247		

Tri-State Traffic Data, Inc.

610-466-1469

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SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/06/22	0	0	0	1	1	2	2	0	0	0	0	0	0	0	6	42	44
01:00	1	0	0	2	0	2	2	2	1	1	0	0	0	0	11	51	57
02:00	0	0	0	2	0	0	1	1	0	0	0	0	0	0	4	47	48
03:00	1	0	0	0	0	4	1	2	0	0	0	0	0	0	8	47	48
04:00	0	0	1	5	3	6	8	3	0	1	0	0	0	0	27	44	49
05:00	0	0	3	2	10	6	11	9	4	0	0	0	0	0	45	48	52
06:00	3	0	2	4	17	24	24	22	9	3	1	1	0	0	110	49	54
07:00	12	2	2	16	29	45	49	38	4	0	0	0	0	0	197	46	49
08:00	19	2	4	12	30	58	54	19	3	0	0	0	0	0	201	44	48
09:00	43	1	3	8	29	24	19	12	1	0	0	0	0	0	140	42	47
10:00	36	3	3	9	21	30	23	10	1	0	0	0	0	0	136	42	47
11:00	28	3	3	15	27	34	35	17	3	0	0	0	0	0	165	44	48
12 PM	33	1	3	13	33	49	59	17	4	0	0	0	0	0	212	44	48
13:00	25	0	6	24	32	60	58	25	4	0	0	0	0	0	234	44	48
14:00	16	2	5	10	54	60	57	19	3	0	0	0	0	0	226	43	47
15:00	14	3	3	13	48	55	55	27	3	0	0	0	0	0	221	44	48
16:00	14	0	4	10	75	90	50	24	5	0	0	0	0	0	272	43	48
17:00	18	0	2	11	43	75	63	29	5	1	0	0	0	0	247	44	48
18:00	15	0	2	9	32	46	20	15	2	0	1	0	0	0	142	44	48
19:00	9	0	0	14	33	30	22	24	3	2	0	0	0	0	137	46	49
20:00	14	0	0	5	35	33	18	7	2	0	0	0	0	0	114	42	47
21:00	5	0	0	7	13	7	9	5	0	1	0	0	0	0	47	44	48
22:00	5	0	0	5	14	5	4	2	0	0	0	0	0	0	35	40	45
23:00	5	0	2	1	3	3	0	3	0	0	0	0	0	0	17	45	48
Total	316	17	48	198	582	748	644	332	57	9	2	1	0	0	2954		
Percent	10.7%	0.6%	1.6%	6.7%	19.7%	25.3%	21.8%	11.2%	1.9%	0.3%	0.1%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	08:00	07:00	08:00	08:00	08:00	07:00	06:00	06:00	06:00	06:00			08:00		
Vol.	43	3	4	16	30	58	54	38	9	3	1	1			201		
PM Peak	12:00	15:00	13:00	13:00	16:00	16:00	17:00	17:00	16:00	19:00	18:00				16:00		
Vol.	33	3	6	24	75	90	63	29	5	2	1				272		

Tri-State Traffic Data, Inc.

610-466-1469

TSTData.com

Road: Newark Rd
 Location: 230 ft S of Rt. 1 SB Ramps
 Counter: 22684

Site Code: 1
 Station ID:
 A to B NB
 Latitude: 39' 84675.0000 North
 Longitude: 75' 76648.0000 West

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/07/22	2	0	0	1	2	0	0	1	0	0	0	0	0	0	6	45	48
01:00	0	0	0	0	1	0	2	0	1	0	0	0	0	0	4	52	54
02:00	1	0	0	2	0	2	2	1	0	1	0	0	0	0	9	48	57
03:00	0	0	0	0	0	4	6	1	1	0	0	0	0	0	12	45	51
04:00	0	0	0	11	8	1	5	6	0	2	0	0	0	0	33	47	55
05:00	2	1	2	1	10	6	16	14	3	0	0	0	0	0	55	48	50
06:00	14	2	3	2	16	28	31	23	14	0	0	0	0	0	133	48	52
07:00	88	1	4	13	37	43	50	19	3	1	0	0	0	0	259	43	47
08:00	66	4	4	8	22	37	28	13	2	0	0	0	0	0	184	42	47
09:00	34	2	8	13	37	26	23	10	1	0	0	0	0	0	154	42	46
10:00	25	6	4	13	22	42	24	16	5	0	0	0	0	0	157	44	49
11:00	18	1	4	14	32	32	27	18	6	2	0	0	0	0	154	45	50
12 PM	16	2	7	16	38	35	24	20	6	4	0	0	0	0	168	46	51
13:00	17	5	7	11	31	43	39	19	6	0	0	0	0	0	178	44	49
14:00	19	0	6	18	44	62	61	14	3	0	0	1	0	0	228	43	47
15:00	24	4	2	10	45	84	51	26	4	2	0	0	0	0	252	44	48
16:00	22	2	3	14	45	89	52	22	4	0	0	0	0	0	253	43	48
17:00	31	0	2	16	45	80	56	30	5	1	0	0	0	0	266	44	48
18:00	22	0	0	4	36	39	42	23	4	0	0	0	0	0	170	45	49
19:00	10	0	3	15	50	37	19	7	1	1	0	0	0	0	143	41	46
20:00	10	1	1	11	25	22	11	6	0	1	0	0	0	0	88	42	47
21:00	5	0	1	15	23	17	8	2	0	0	0	0	0	0	71	39	44
22:00	2	0	0	1	7	1	2	1	0	0	0	0	0	0	14	42	46
23:00	2	0	0	2	6	3	4	5	0	0	0	0	0	0	22	46	48
Total	430	31	61	211	582	733	583	297	69	15	0	1	0	0	3013		
Percent	14.3%	1.0%	2.0%	7.0%	19.3%	24.3%	19.3%	9.9%	2.3%	0.5%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	10:00	09:00	11:00	07:00	07:00	07:00	06:00	06:00	04:00					07:00		
Vol.	88	6	8	14	37	43	50	23	14	2					259		
PM Peak	17:00	13:00	12:00	14:00	19:00	16:00	14:00	17:00	12:00	12:00		14:00			17:00		
Vol.	31	5	7	18	50	89	61	30	6	4		1			266		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
Counter: 22684

Site Code: 1
Station ID:
A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/08/22	2	0	0	1	3	5	0	0	0	1	0	0	0	0	12	39	56
01:00	0	0	1	0	1	0	2	0	0	0	0	0	0	0	4	43	44
02:00	2	0	1	1	1	2	0	0	1	0	0	0	0	0	8	39	52
03:00	1	0	0	1	0	1	1	1	0	0	0	0	0	0	5	46	48
04:00	7	0	0	8	4	3	1	3	1	0	0	0	0	0	27	44	49
05:00	11	0	0	0	2	10	6	6	3	1	0	0	0	0	39	48	53
06:00	41	1	1	8	12	15	24	12	8	1	0	0	0	0	123	46	51
07:00	51	2	0	9	24	44	46	15	4	0	0	0	0	0	195	43	48
08:00	41	0	1	11	29	43	51	19	2	0	0	0	0	0	197	44	47
09:00	22	3	4	14	41	29	30	15	3	1	0	0	0	0	162	44	48
10:00	21	2	8	6	23	45	25	10	2	0	0	0	0	0	142	43	47
11:00	14	2	4	11	37	32	33	18	5	1	0	0	0	0	157	45	49
12 PM	20	4	4	16	41	44	40	24	5	0	0	0	0	0	198	44	48
13:00	18	4	1	9	34	44	36	17	5	0	0	0	0	0	168	44	49
14:00	8	1	2	12	43	45	54	32	8	1	0	0	0	0	206	46	49
15:00	26	2	2	7	33	66	70	25	12	0	0	0	0	0	243	45	49
16:00	14	0	5	9	39	88	78	39	5	2	1	0	0	0	280	45	49
17:00	15	0	1	11	45	85	56	33	9	0	0	0	0	0	255	45	49
18:00	14	0	0	8	34	41	29	27	7	1	0	0	0	0	161	47	49
19:00	7	1	2	6	39	31	28	13	12	2	0	0	0	0	141	47	52
20:00	9	0	3	8	29	27	21	14	5	0	0	0	0	0	116	45	49
21:00	6	0	2	6	28	22	21	5	3	1	0	0	0	0	94	43	49
22:00	0	0	0	4	13	12	6	4	1	0	0	0	0	0	40	44	48
23:00	0	0	0	6	6	10	2	0	0	0	0	0	0	0	24	39	41
Total	350	22	42	172	561	744	660	332	101	12	1	0	0	0	2997		
Percent	11.7%	0.7%	1.4%	5.7%	18.7%	24.8%	22.0%	11.1%	3.4%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	10:00	09:00	09:00	10:00	08:00	08:00	06:00	00:00					08:00		
Vol.	51	3	8	14	41	45	51	19	8	1					197		
PM Peak	15:00	12:00	16:00	12:00	17:00	16:00	16:00	16:00	15:00	16:00	16:00				16:00		
Vol.	26	4	5	16	45	88	78	39	12	2	1				280		

Tri-State Traffic Data, Inc.
610-466-1469
TSTData.com

Road: Newark Rd
Location: 230 ft S of Rt. 1 SB Ramps
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Site Code: 1
Station ID:
A to B NB
Latitude: 39' 84675.0000 North
Longitude: 75' 76648.0000 West

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
06/09/22	2	0	0	1	3	2	2	0	0	0	0	0	0	0	10	41	43
01:00	0	0	1	1	1	1	3	1	1	0	0	0	0	0	9	48	52
02:00	1	0	0	0	0	2	0	0	0	1	0	0	0	0	4	57	59
03:00	1	0	0	1	2	1	4	0	1	0	0	0	0	0	10	44	52
04:00	1	0	0	6	9	5	4	3	0	1	0	0	0	0	29	44	49
05:00	11	0	0	1	7	9	10	3	1	0	0	0	0	0	42	43	48
06:00	33	1	3	4	8	11	29	21	2	0	0	0	0	0	112	46	49
07:00	37	1	1	12	23	39	42	20	8	0	0	0	0	0	183	45	49
08:00	33	0	3	9	25	42	45	30	4	0	0	0	0	0	191	45	49
09:00	15	2	4	18	40	35	21	20	3	0	0	0	0	0	158	44	48
10:00	16	6	3	14	32	30	25	19	2	0	0	0	0	0	147	44	48
11:00	20	3	1	10	38	47	31	26	0	1	0	0	0	0	177	45	48
12 PM	15	3	5	11	37	48	39	30	5	1	0	0	0	0	194	46	49
13:00	23	0	4	22	45	41	39	12	5	1	0	0	0	0	192	43	48
14:00	16	2	9	7	40	37	43	23	4	1	0	0	0	0	182	45	49
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	224	18	34	117	310	350	337	208	36	6	0	0	0	0	1640		
Percent	13.7%	1.1%	2.1%	7.1%	18.9%	21.3%	20.5%	12.7%	2.2%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	10:00	09:00	09:00	09:00	11:00	08:00	08:00	07:00	02:00					08:00		
Vol.	37	6	4	18	40	47	45	30	8	1					191		
PM Peak	13:00	12:00	14:00	13:00	13:00	12:00	14:00	12:00	12:00	12:00					12:00		
Vol.	23	3	9	22	45	48	43	30	5	1					194		
Total	2412	119	303	1332	4132	5166	4480	2367	531	83	8	5	0	0	20938		
Percent	11.5%	0.6%	1.4%	6.4%	19.7%	24.7%	21.4%	11.3%	2.5%	0.4%	0.0%	0.0%	0.0%	0.0%			

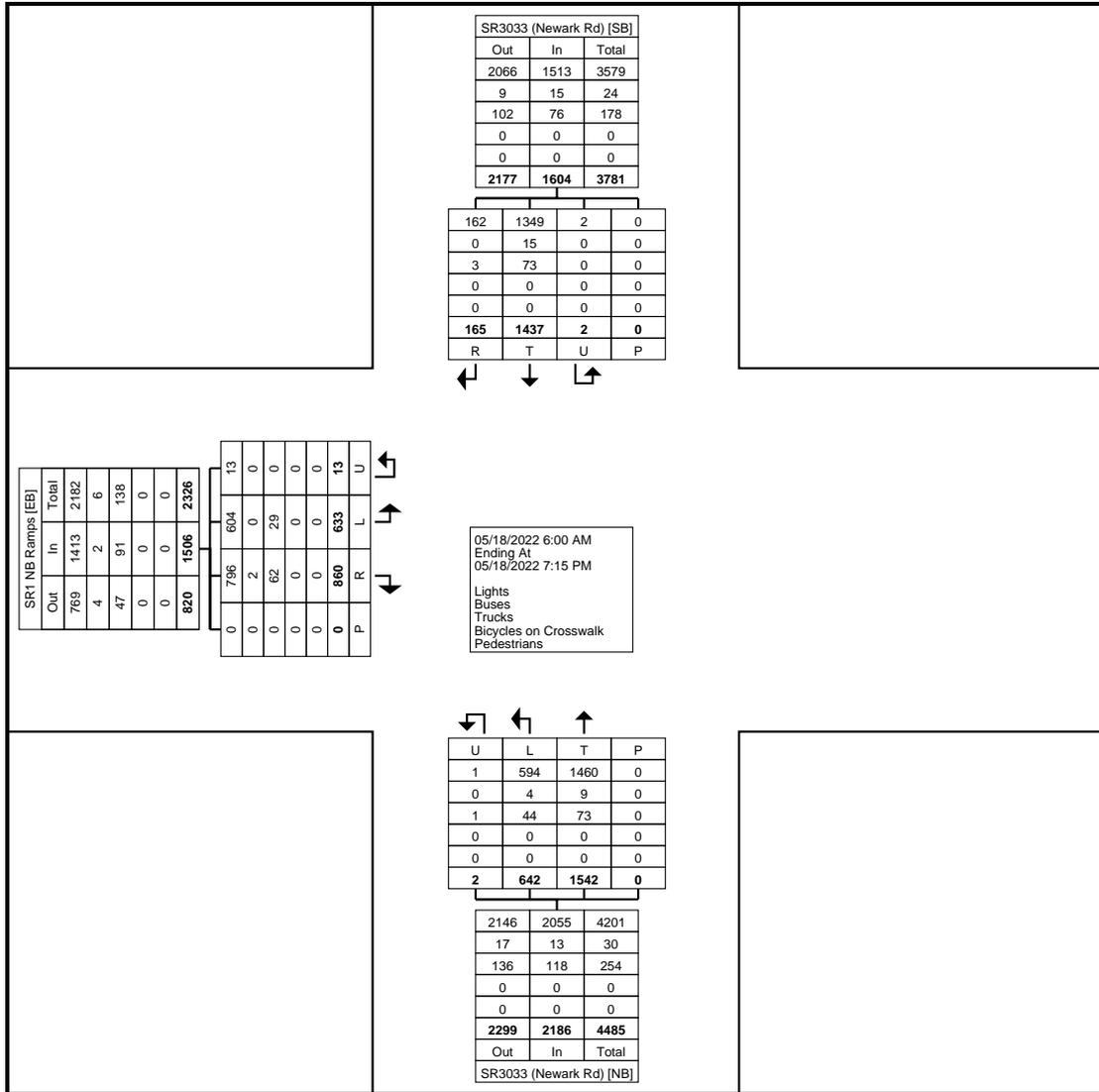
15th Percentile : 26 MPH
50th Percentile : 37 MPH
85th Percentile : 44 MPH
95th Percentile : 49 MPH

Stats
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 9646
Percent in Pace : 46.1%
Number of Vehicles > 40 MPH : 7474
Percent of Vehicles > 40 MPH : 35.7%
Mean Speed(Average) : 35 MPH

Appendix B

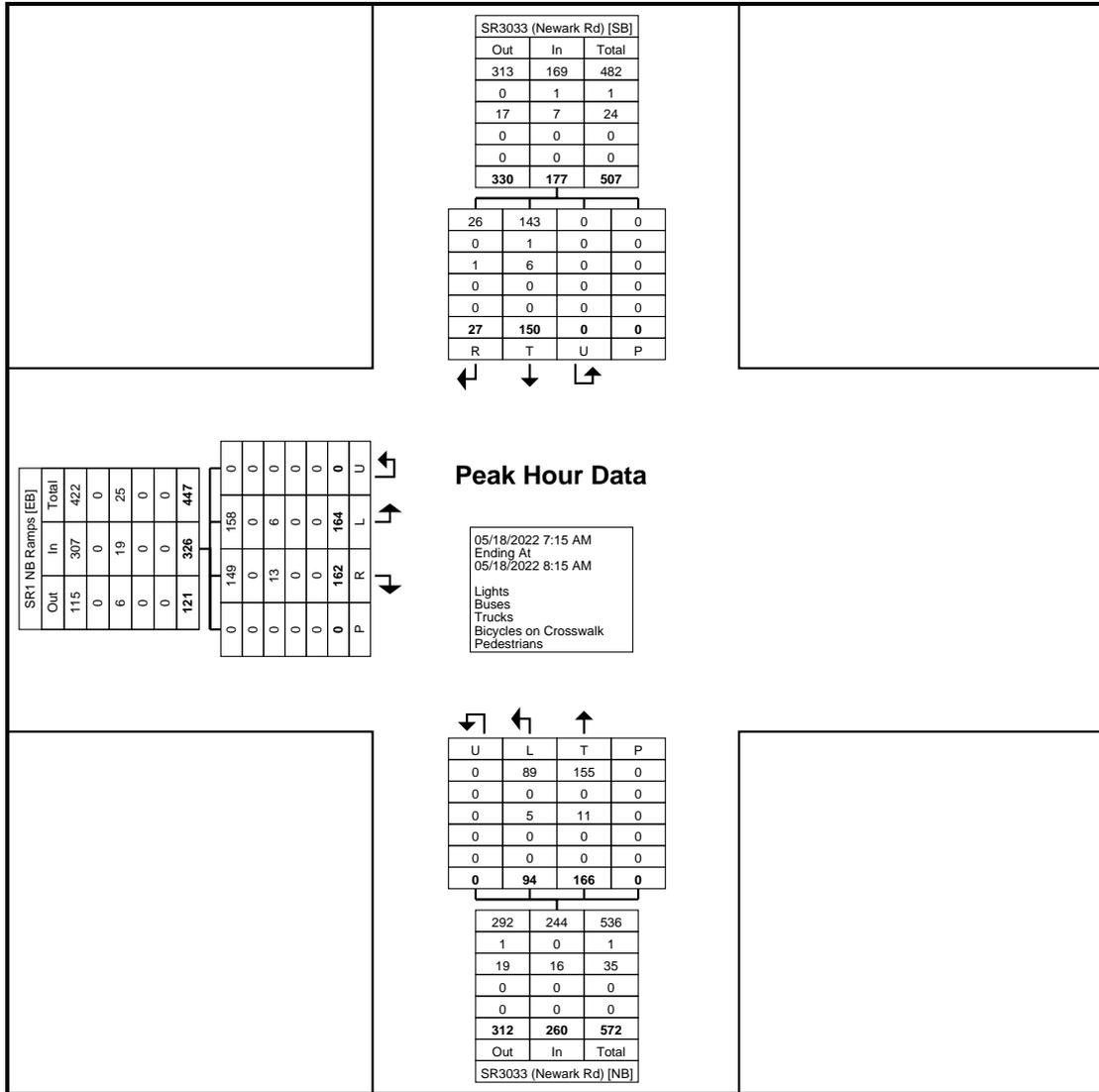
TMC Data

Chester County, PA
Newark Rd & Route 1 NB
Ramps
Wednesday, May 18, 2022
Location: 39.845499, -
75.765895



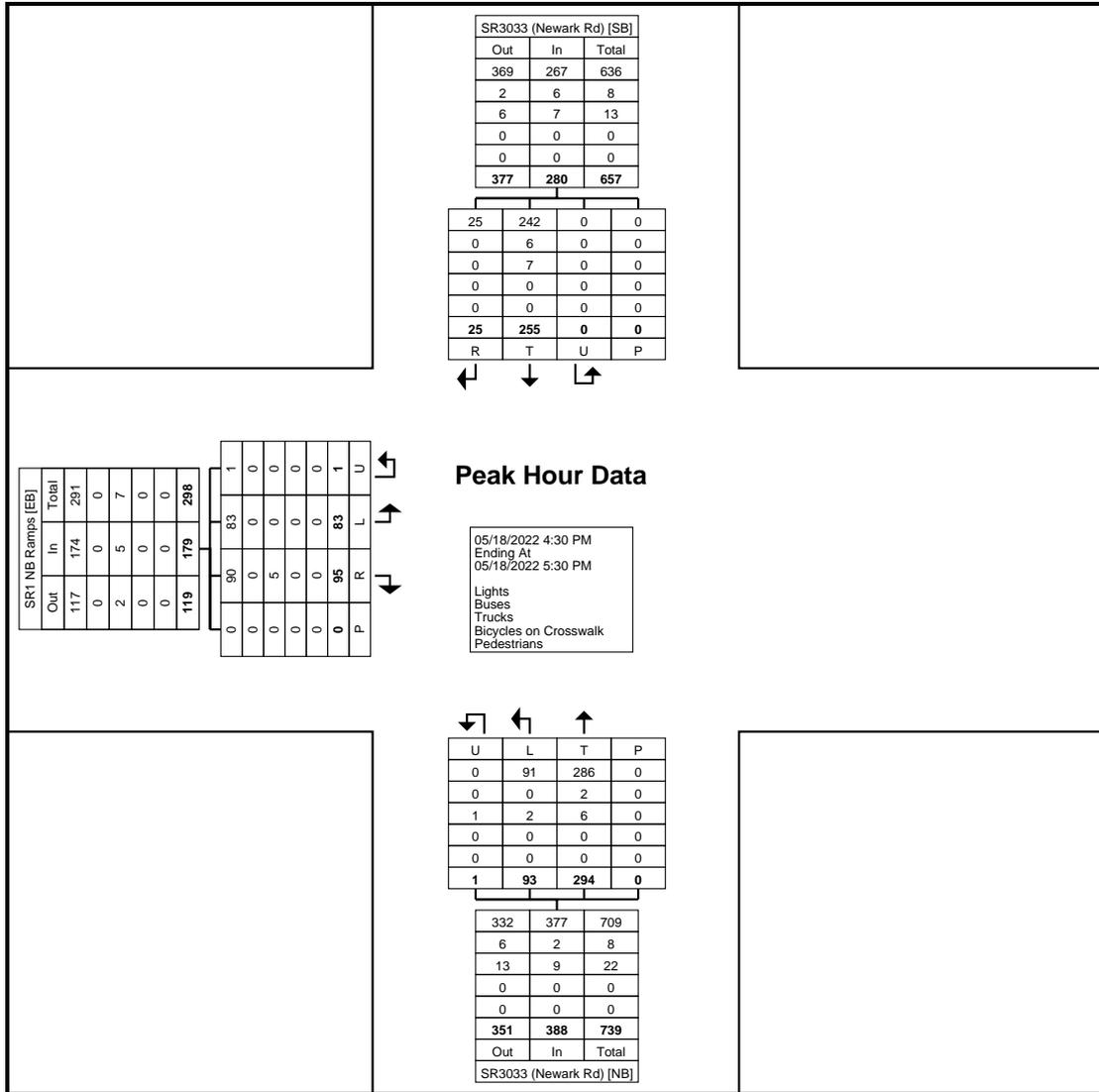
Turning Movement Data Plot

Chester County, PA
Newark Rd & Route 1 NB
Ramps
Wednesday, May 18, 2022
Location: 39.845499, -
75.765895



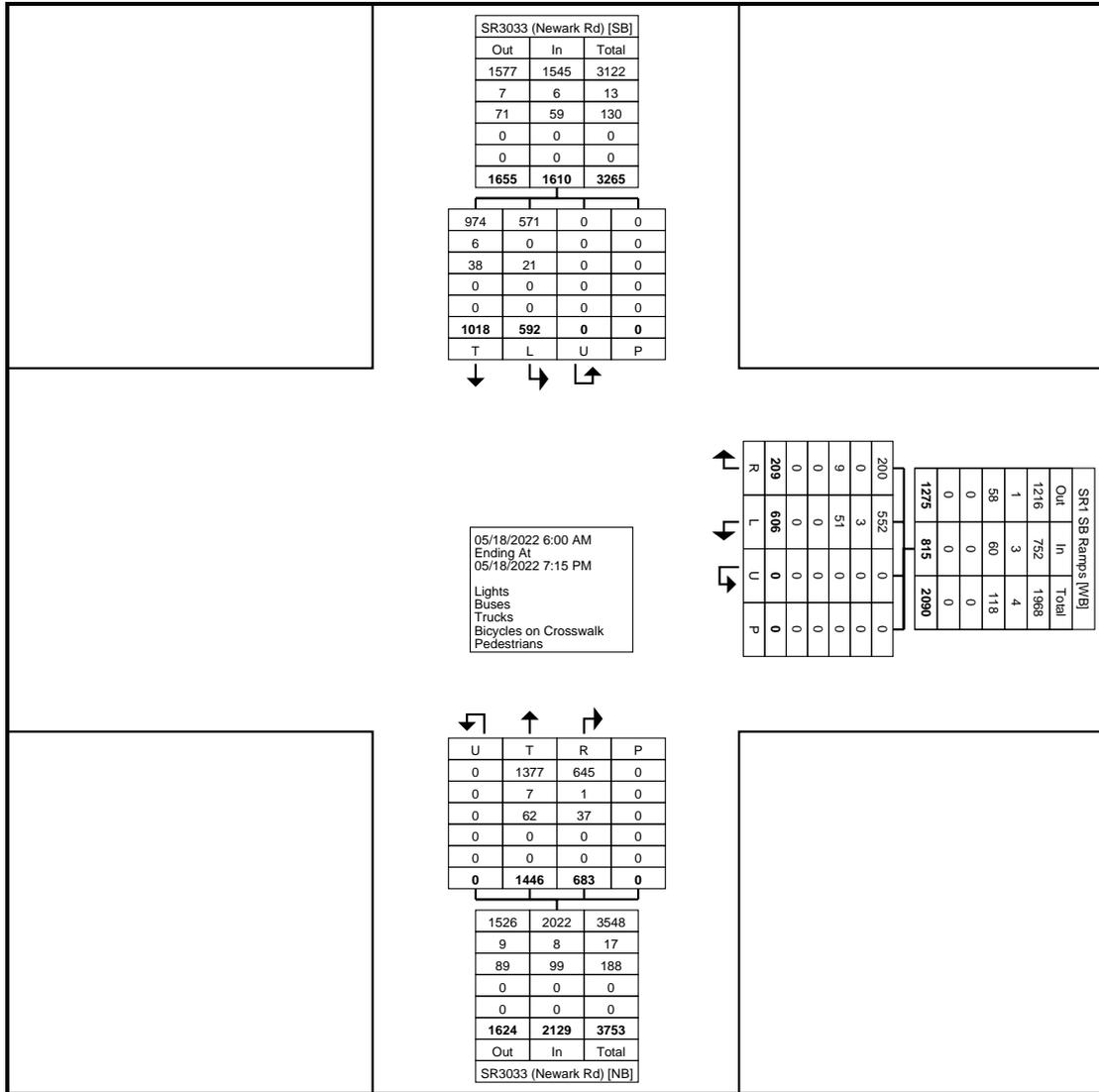
Turning Movement Peak Hour Data Plot (7:15 AM)

Chester County, PA
Newark Rd & Route 1 NB
Ramps
Wednesday, May 18, 2022
Location: 39.845499, -
75.765895



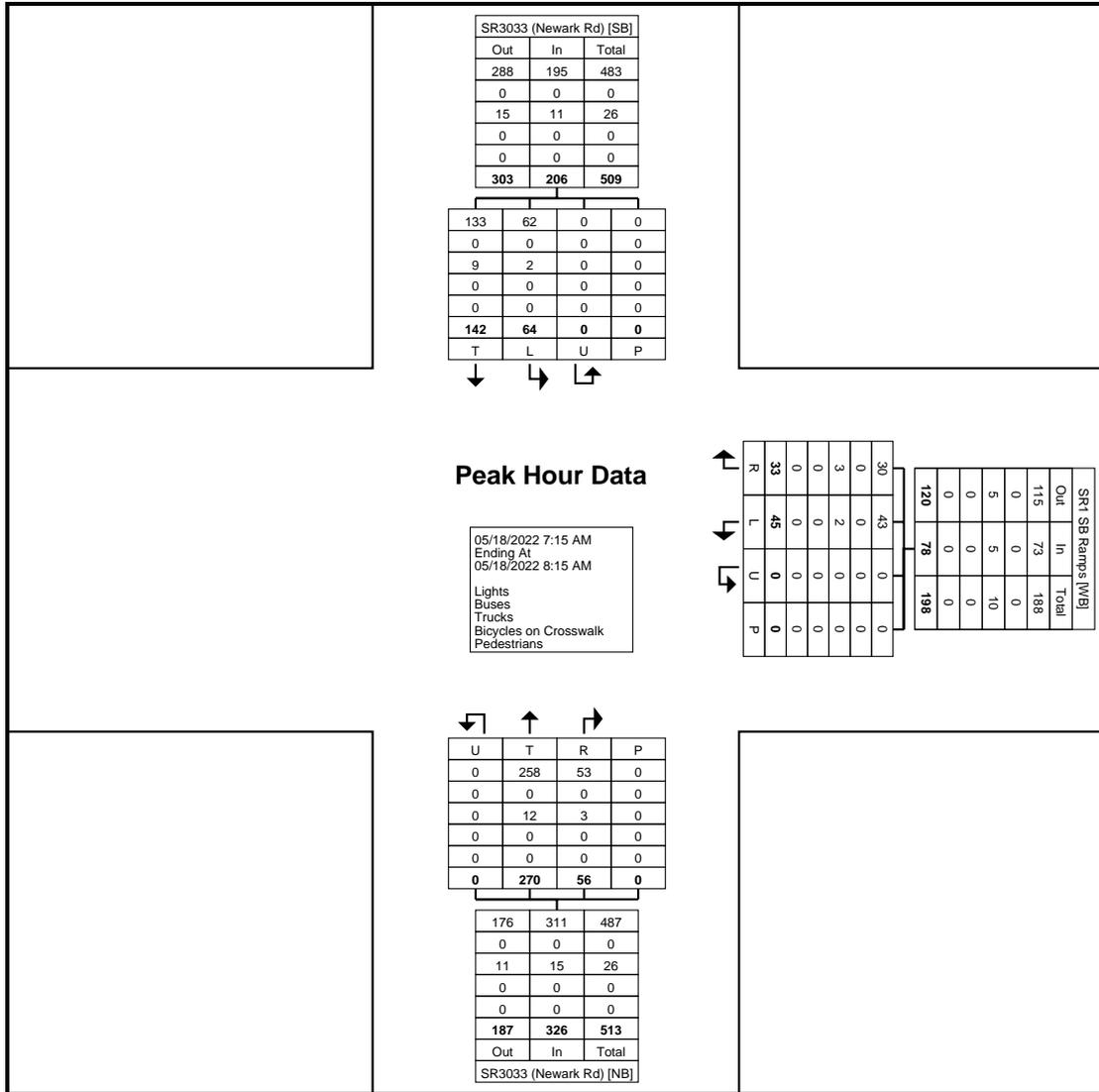
Turning Movement Peak Hour Data Plot (4:30 PM)

Chester County, PA
Newark Rd & Route 1 SB
Ramps
Wednesday, May 18, 2022
Location: 39.847365, -
75.766651



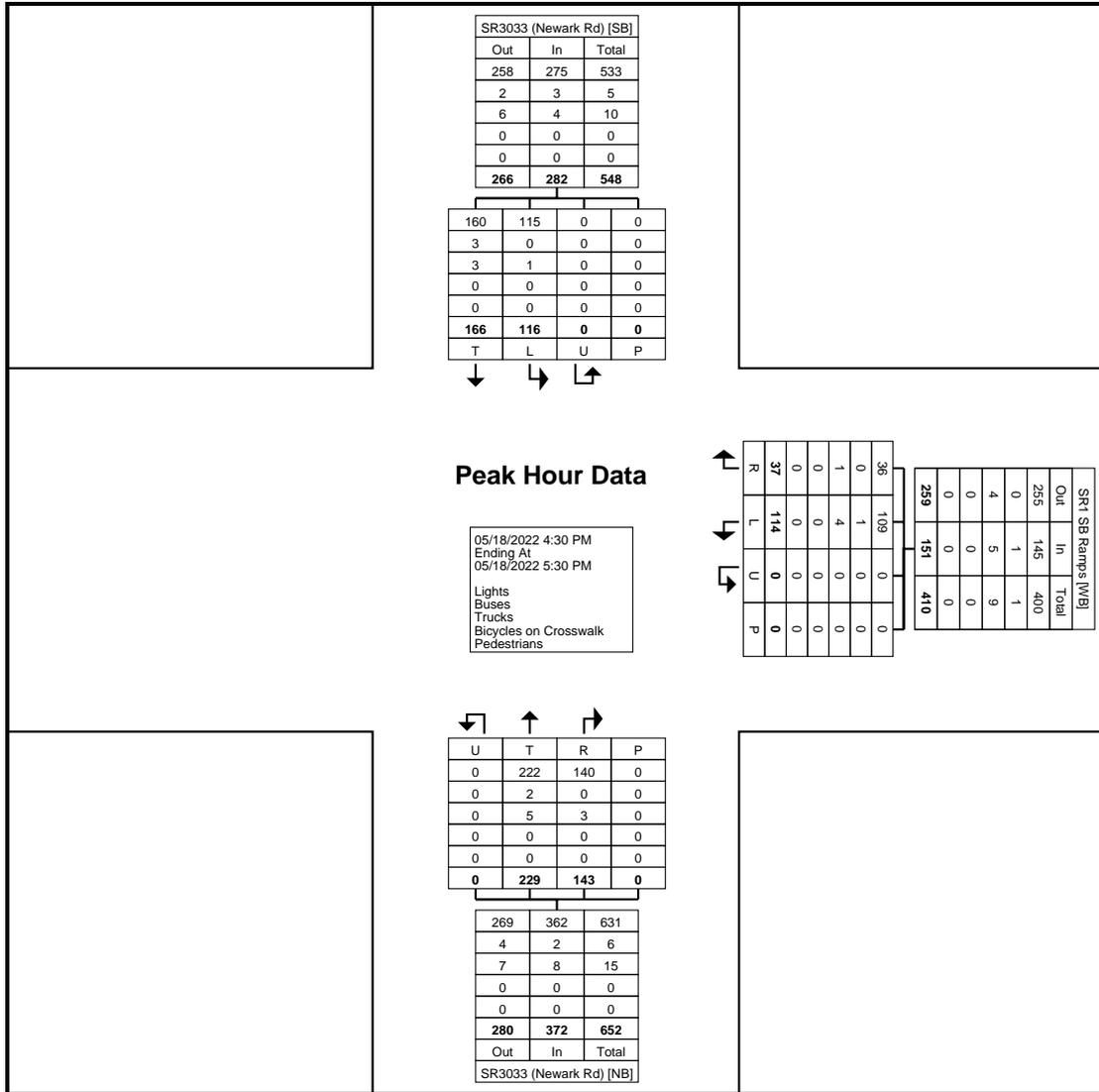
Turning Movement Data Plot

Chester County, PA
Newark Rd & Route 1 SB
Ramps
Wednesday, May 18, 2022
Location: 39.847365, -
75.766651



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

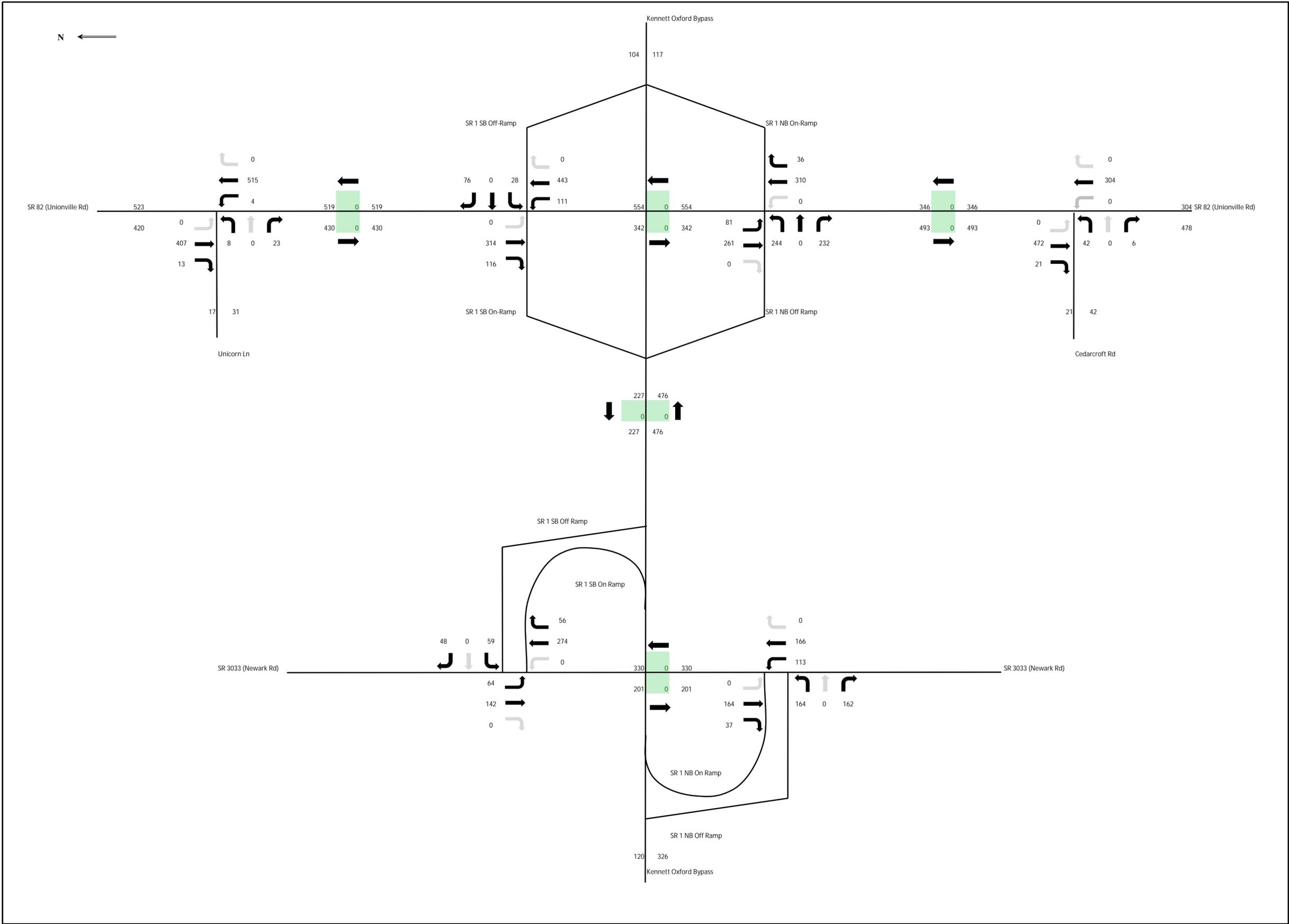
Chester County, PA
Newark Rd & Route 1 SB
Ramps
Wednesday, May 18, 2022
Location: 39.847365, -
75.766651



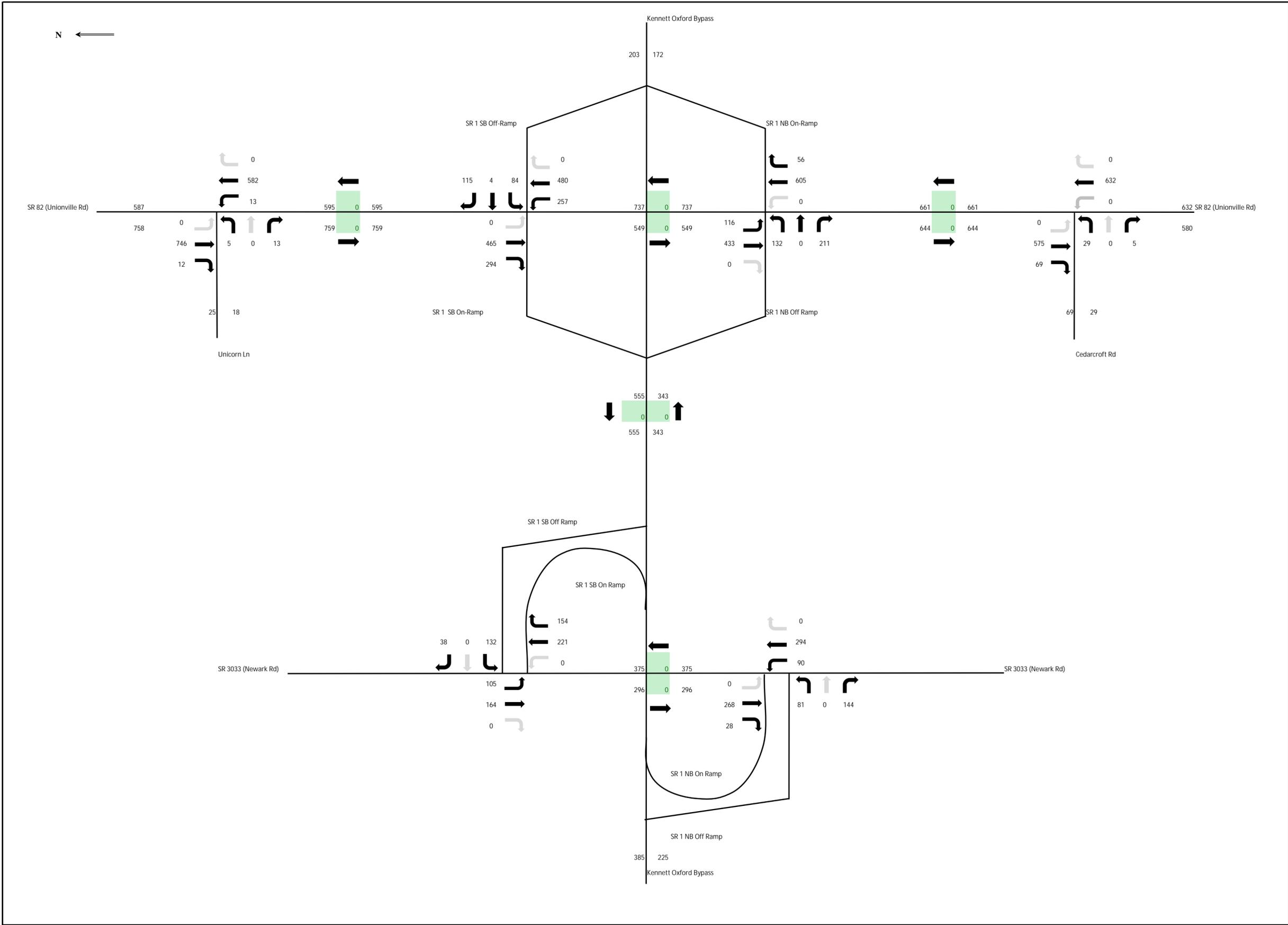
Turning Movement Peak Hour Data Plot (4:30 PM)

Appendix C

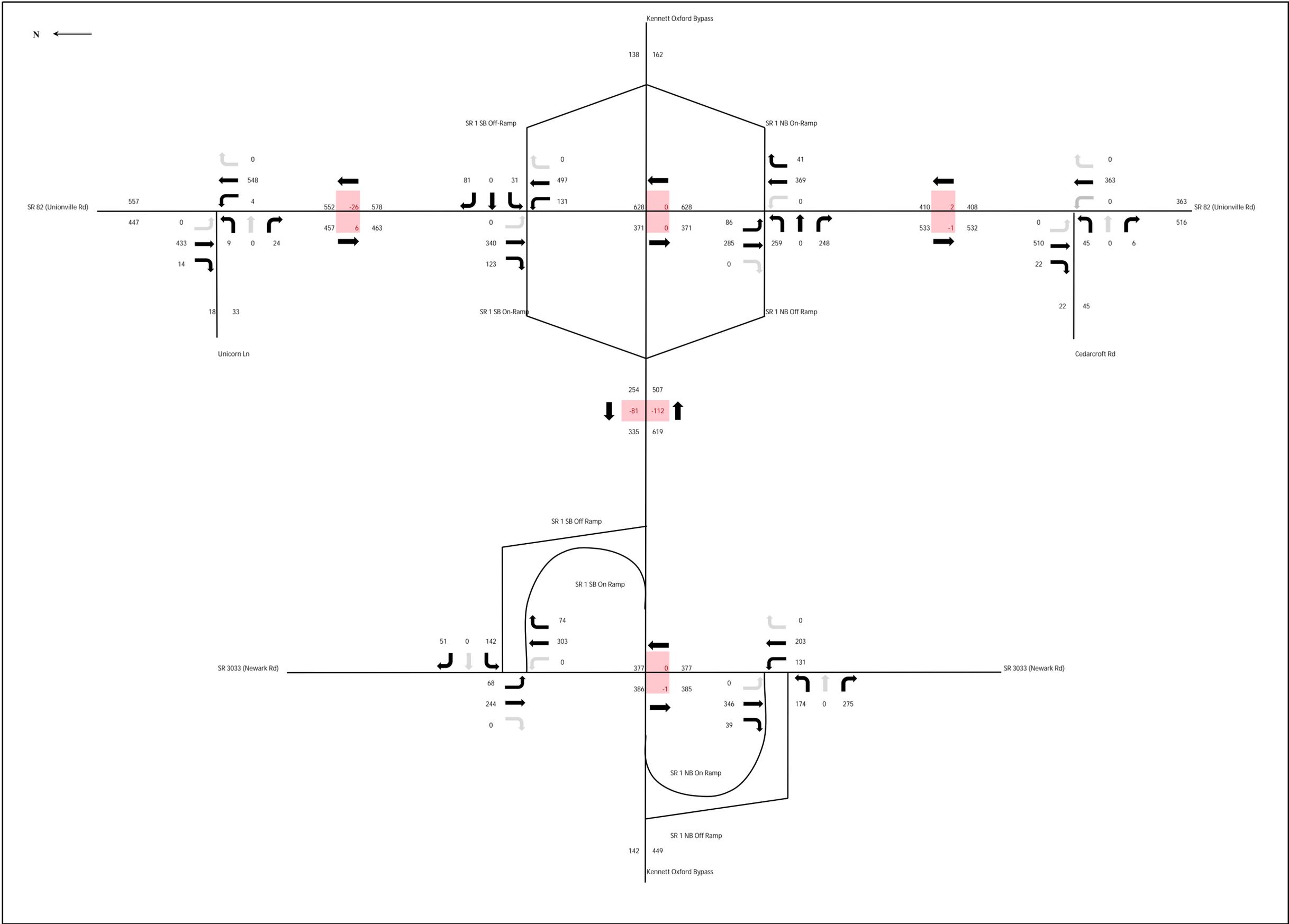
Volume Diagrams

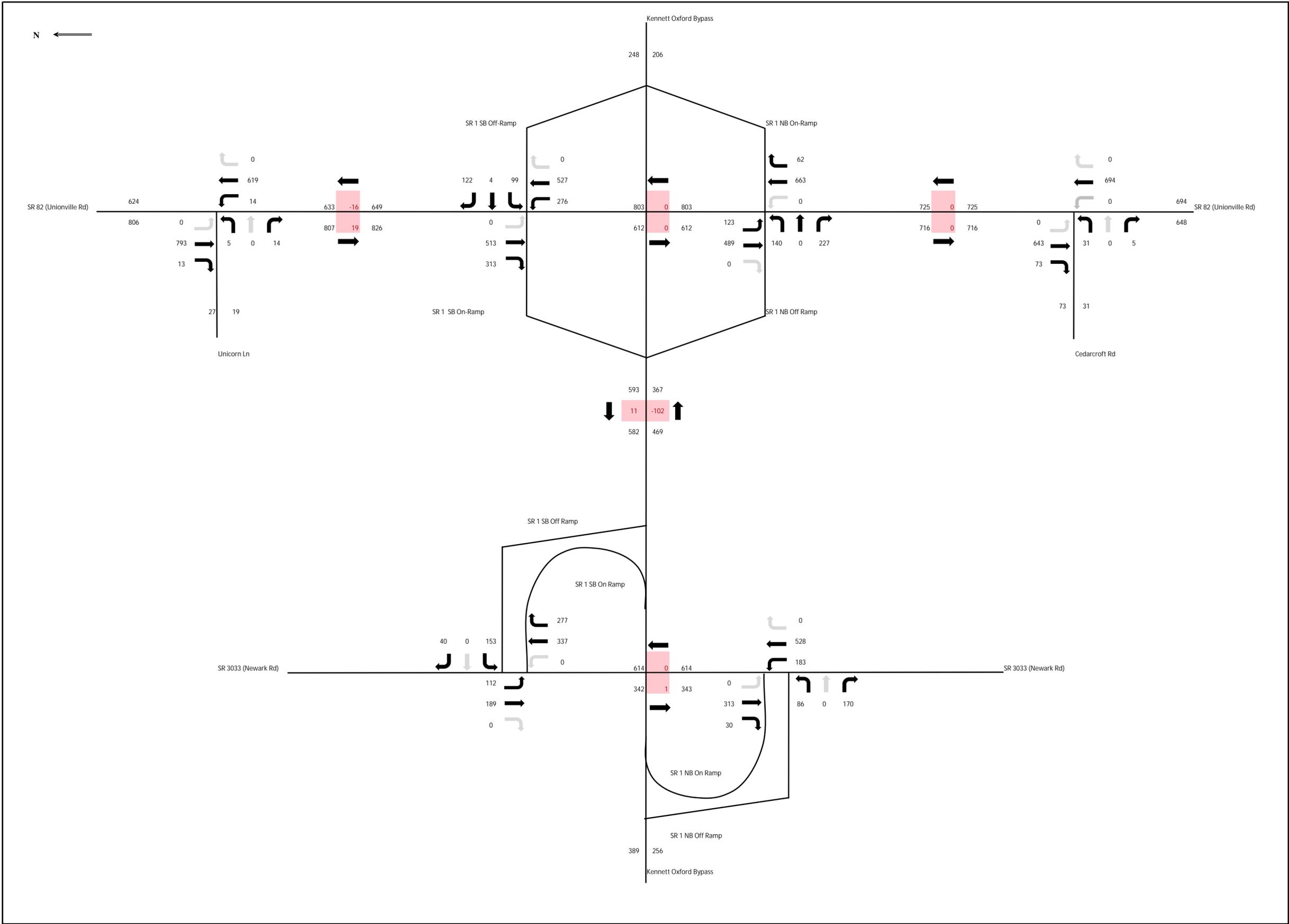


SR 1 Sec210 Project Network
 AM Peak Hour (7:15 - 8:15 AM)
 2022 Existing Balanced Volumes (Total)

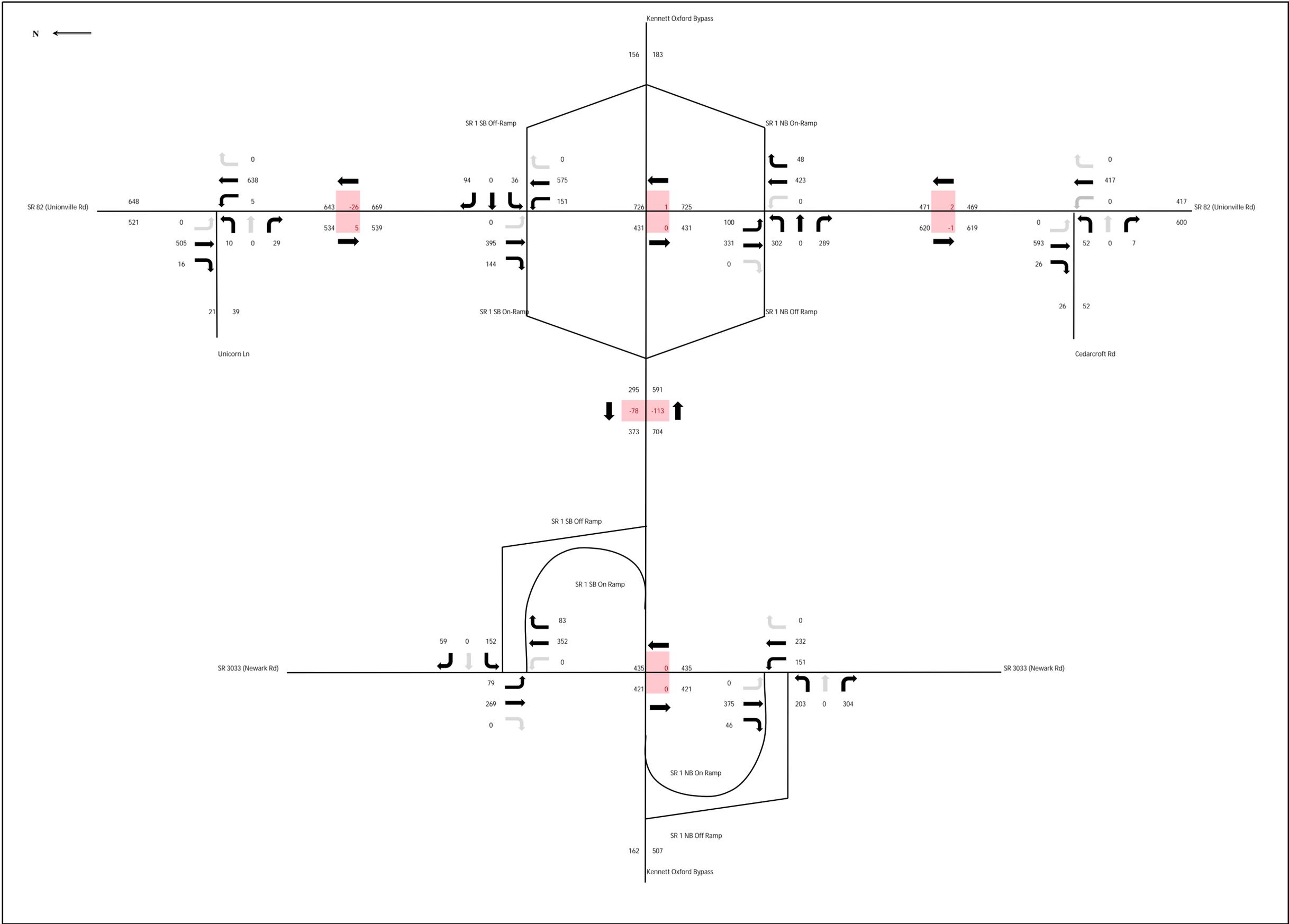


SR 1 Sec210 Project Network
 PM Peak Hour (4:45 - 5:45 PM)
 2022 Existing Balanced Volumes (Total)

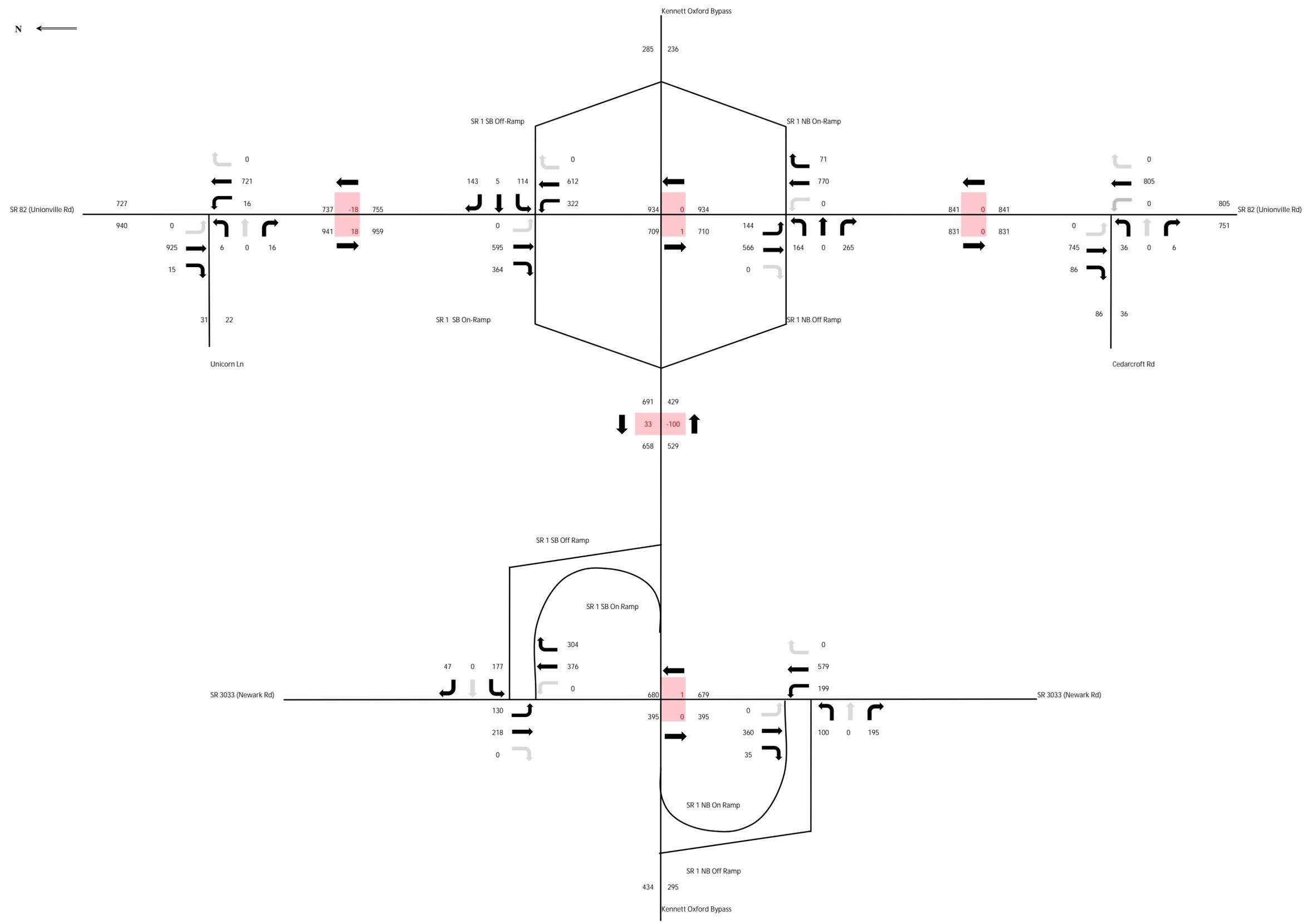




SR 1 Sec210 Project Network
 Peak Hour Volumes (Total, 4:45PM-5:45PM)
 2030 Future Year with Future Developments

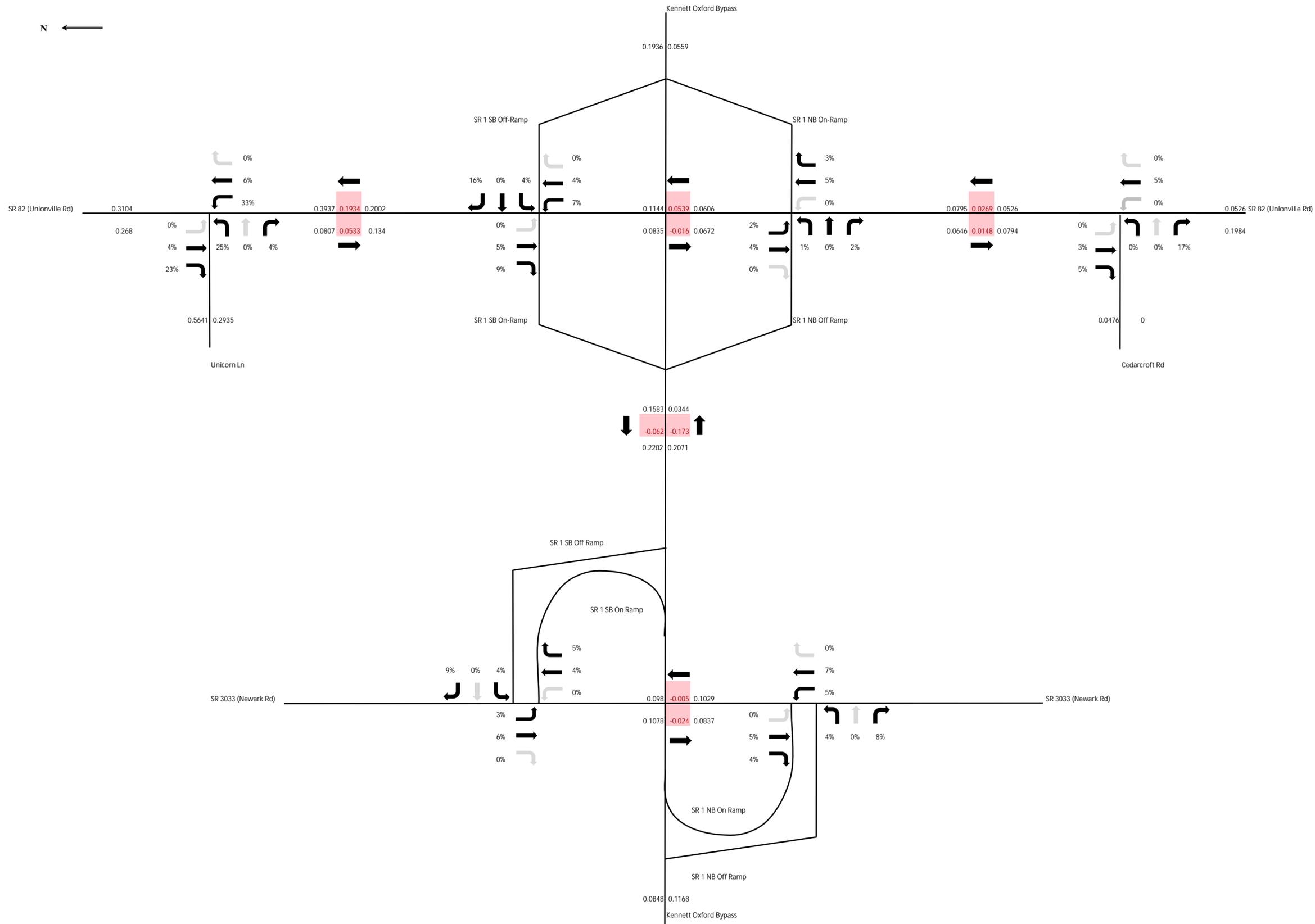


SR 1 Sec210 Project Network
 Peak Hour Volumes (Total, 7:15AM-8:15AM)
 2050 Future Year with Future Developments

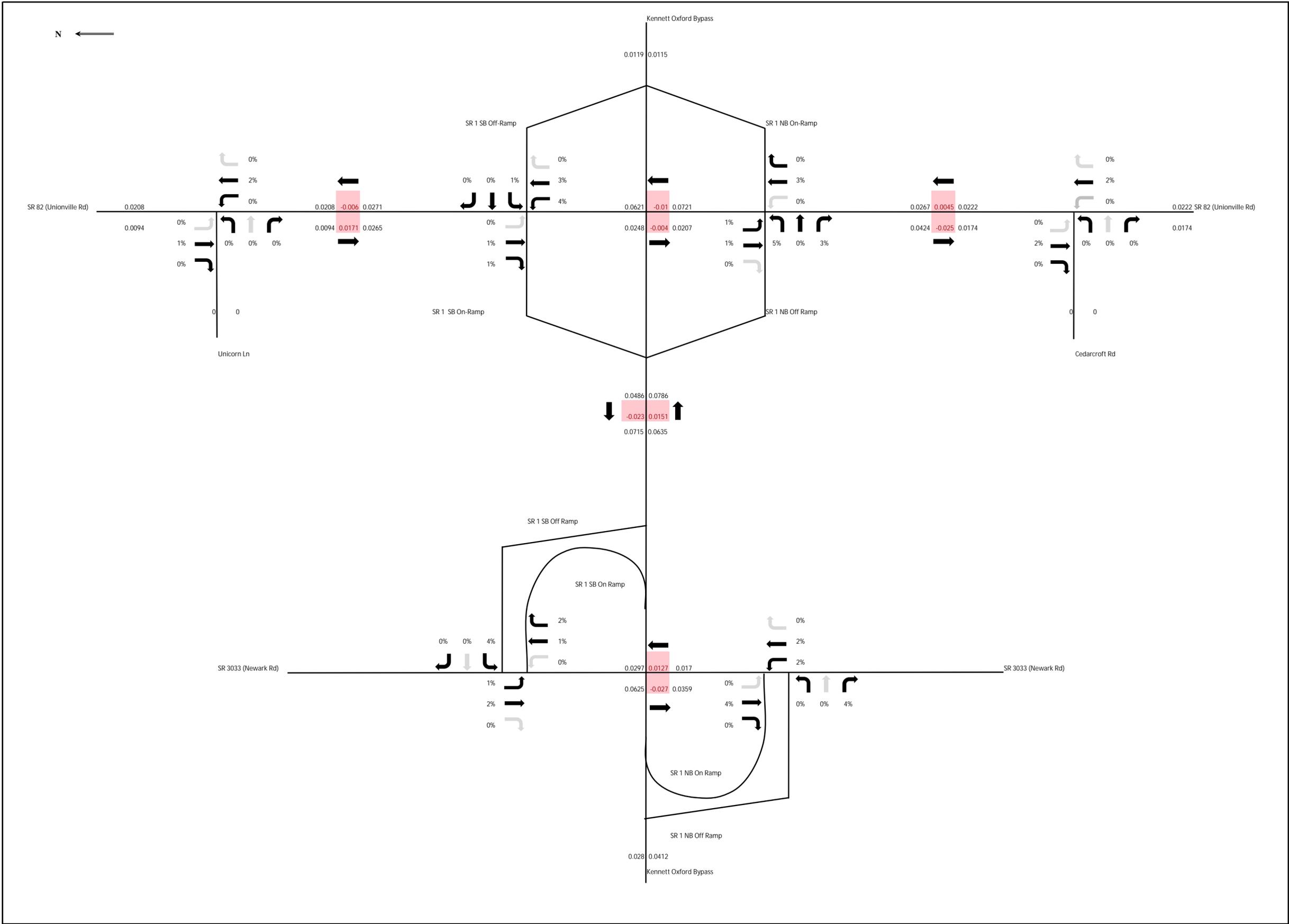


SR 1 Sec210 Project Network
Peak Hour Volumes (Total, 4:45PM-5:45PM)
2050 Future Year with Future Developments

N ←



SR 1 Sec210 Project Network
AM Peak Hour (7:15 - 8:15 AM)
2022 Existing Heavy Vehicle Percent



SR 1 Sec210 Project Network
 PM Peak Hour (4:45 - 5:45 PM)
 2022 Existing Heavy Vehicle Percent

Appendix D
Traffic Signal Warrants

STUDY AND ANALYSIS INFORMATION

Municipality:
 County:
 PennDOT Engineering District:

Analysis Date:
 Conducted By:
 Agency/Company Name:

Analysis Information

Data Collection Date:
 Day of the Week:

Is the intersection in a built-up area of an isolated community of <10,000 population?

Major Street Information

Major Street Name and Route Number:
 Major Street Approach #1 Direction:
 Major Street Approach #2 Direction:

Number of Lanes for Moving Traffic on Each Major Street Approach: LANE(S)
 Speed Limit or 85th Percentile Speed on the Major Street: MPH

Minor Street Information

Minor Street Name and Route Number:
 Minor Street Approach #1 Direction:
 Minor Street Approach #2 Direction:

Number of Lanes for Moving Traffic on Each Minor Street Approach: LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	Yes	No
Warrant 2, Four-Hour Vehicular Volume	Yes	No
Warrant 3, Peak Hour	Yes	No
Warrant 4, Pedestrian Volume	No	N/A
Warrant 5, School Crossing	No	N/A
Warrant 6, Coordinated Signal System	No	N/A
Warrant 7, Crash Experience	No	N/A
Warrant 8, Roadway Network	No	N/A
Warrant 9, Intersection Near a Grade Crossing	No	N/A
Warrant PA-1, ADT Volume Warrant	Yes	No
Warrant PA-2, Midblock and Trail Crossings	No	N/A

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (W-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 AM	12:14 AM	4	5	9	2	
12:15 AM	12:29 AM	3	5	8	1	
12:30 AM	12:44 AM	5	2	7	2	
12:45 AM	12:59 AM	2	0	2	1	
1:00 AM	1:14 AM	0	1	1	1	
1:15 AM	1:29 AM	1	1	2	1	
1:30 AM	1:44 AM	2	1	3	0	
1:45 AM	1:59 AM	1	1	2	0	
2:00 AM	2:14 AM	1	1	2	0	
2:15 AM	2:29 AM	2	3	5	1	
2:30 AM	2:44 AM	1	1	2	1	
2:45 AM	2:59 AM	1	2	3	0	
3:00 AM	3:14 AM	1	0	1	0	
3:15 AM	3:29 AM	2	3	5	2	
3:30 AM	3:44 AM	4	1	5	0	
3:45 AM	3:59 AM	0	1	1	2	
4:00 AM	4:14 AM	3	1	4	1	
4:15 AM	4:29 AM	8	6	14	2	
4:30 AM	4:44 AM	14	7	21	4	
4:45 AM	4:59 AM	15	10	25	7	
5:00 AM	5:14 AM	13	7	20	6	
5:15 AM	5:29 AM	23	8	31	2	
5:30 AM	5:44 AM	29	13	42	3	
5:45 AM	5:59 AM	31	10	41	6	
6:00 AM	6:14 AM	34	16	50	10	
6:15 AM	6:29 AM	37	17	54	6	
6:30 AM	6:44 AM	56	37	93	9	
6:45 AM	6:59 AM	85	51	136	12	
7:00 AM	7:14 AM	60	46	106	28	
7:15 AM	7:29 AM	80	45	125	22	
7:30 AM	7:44 AM	89	48	137	20	
7:45 AM	7:59 AM	98	48	146	18	
8:00 AM	8:14 AM	77	48	125	18	
8:15 AM	8:29 AM	54	50	104	19	
8:30 AM	8:44 AM	47	52	99	13	
8:45 AM	8:59 AM	55	35	90	12	
9:00 AM	9:14 AM	40	45	85	25	
9:15 AM	9:29 AM	44	34	78	18	
9:30 AM	9:44 AM	32	33	65	10	
9:45 AM	9:59 AM	43	44	87	13	
10:00 AM	10:14 AM	45	36	81	16	
10:15 AM	10:29 AM	44	35	79	18	
10:30 AM	10:44 AM	43	37	80	12	
10:45 AM	10:59 AM	57	26	83	16	
11:00 AM	11:14 AM	48	32	80	27	
11:15 AM	11:29 AM	48	37	85	17	
11:30 AM	11:44 AM	48	33	81	17	
11:45 AM	11:59 AM	40	54	94	18	

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (W-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 PM	12:14 PM	55	44	99	19	
12:15 PM	12:29 PM	40	48	88	21	
12:30 PM	12:44 PM	44	43	87	16	
12:45 PM	12:59 PM	51	57	108	26	
1:00 PM	1:14 PM	47	33	80	24	
1:15 PM	1:29 PM	50	39	89	29	
1:30 PM	1:44 PM	59	47	106	29	
1:45 PM	1:59 PM	53	46	99	32	
2:00 PM	2:14 PM	37	52	89	27	
2:15 PM	2:29 PM	56	49	105	31	
2:30 PM	2:44 PM	54	54	108	26	
2:45 PM	2:59 PM	69	48	117	37	
3:00 PM	3:14 PM	66	48	114	47	
3:15 PM	3:29 PM	83	57	140	36	
3:30 PM	3:44 PM	88	53	141	26	
3:45 PM	3:59 PM	85	78	163	38	
4:00 PM	4:14 PM	88	61	149	33	
4:15 PM	4:29 PM	74	66	140	39	
4:30 PM	4:44 PM	71	75	146	34	
4:45 PM	4:59 PM	80	74	154	43	
5:00 PM	5:14 PM	86	71	157	41	
5:15 PM	5:29 PM	92	75	167	30	
5:30 PM	5:44 PM	65	50	115	34	
5:45 PM	5:59 PM	74	53	127	33	
6:00 PM	6:14 PM	68	47	115	36	
6:15 PM	6:29 PM	52	40	92	38	
6:30 PM	6:44 PM	47	40	87	27	
6:45 PM	6:59 PM	47	30	77	28	
7:00 PM	7:14 PM	38	29	67	23	
7:15 PM	7:29 PM	41	41	82	20	
7:30 PM	7:44 PM	38	38	76	20	
7:45 PM	7:59 PM	22	30	52	19	
8:00 PM	8:14 PM	35	35	70	24	
8:15 PM	8:29 PM	31	26	57	16	
8:30 PM	8:44 PM	23	33	56	19	
8:45 PM	8:59 PM	28	22	50	17	
9:00 PM	9:14 PM	29	32	61	17	
9:15 PM	9:29 PM	42	24	66	8	
9:30 PM	9:44 PM	17	18	35	9	
9:45 PM	9:59 PM	14	19	33	2	
10:00 PM	10:14 PM	20	14	34	2	
10:15 PM	10:29 PM	19	10	29	13	
10:30 PM	10:44 PM	14	7	21	7	
10:45 PM	10:59 PM	14	9	23	7	
11:00 PM	11:14 PM	8	2	10	10	
11:15 PM	11:29 PM	6	7	13	2	
11:30 PM	11:44 PM	3	5	8	4	
11:45 PM	11:59 PM	6	10	16	0	

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (W-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
Approach Totals:		3699	2918	6617	1558	0

MUTCD WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Combination of Conditions A and B Necessary?*: No

**Only applicable for Warrant 1 if after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems. See Section 4C.02 of the 2009 MUTCD for application.*

Condition A - Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or More	1	600	480	420	336	150	120	105	84
2 or More	2 or More	600	480	420	336	200	160	140	112
1	2 or More	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or More	1	900	720	630	504	75	60	53	42
2 or More	2 or More	900	720	630	504	100	80	70	56
1	2 or More	750	600	525	420	100	80	70	56

Condition A Evaluation

Number of Unique Hours Met: 1 Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 0 Condition B Satisfied? No

Combination of Condition A and Condition B Evaluation

Number of Unique Hours Met for Condition A: N/A

Number of Unique Hours Met for Condition B: N/A

Combination of Condition A and Condition B Satisfied? N/A

MUTCD WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

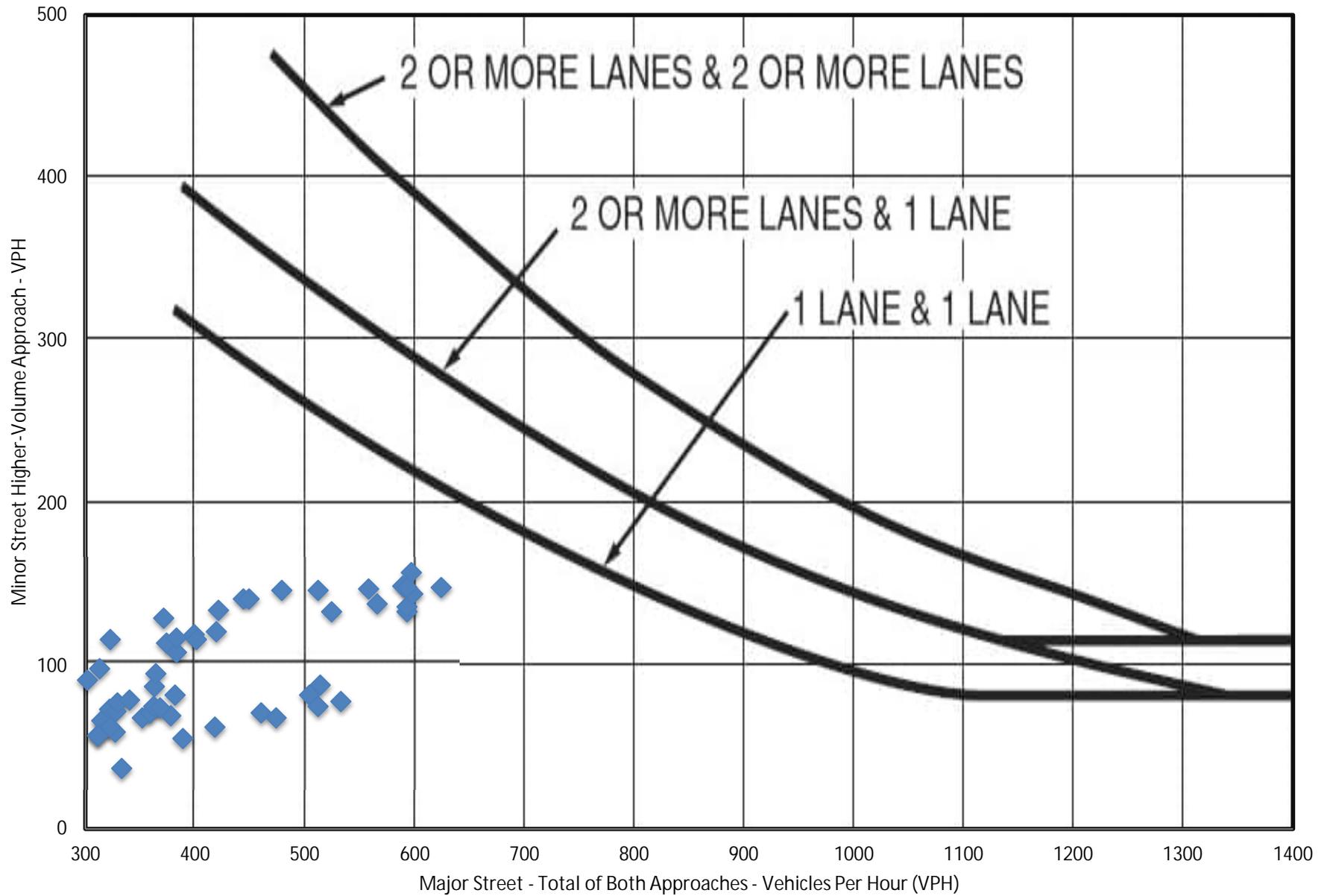
Total Number of Unique Hours Met On Figure 4C-1
0

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?
No

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	26	6	
12:15 AM	18	5	
12:30 AM	12	5	
12:45 AM	8	3	
1:00 AM	8	2	
1:15 AM	9	1	
1:30 AM	12	1	
1:45 AM	11	2	
2:00 AM	12	2	
2:15 AM	11	2	
2:30 AM	11	3	
2:45 AM	14	2	
3:00 AM	12	4	
3:15 AM	15	5	
3:30 AM	24	5	
3:45 AM	40	9	
4:00 AM	64	14	
4:15 AM	80	19	
4:30 AM	97	19	
4:45 AM	118	18	
5:00 AM	134	17	
5:15 AM	164	21	
5:30 AM	187	25	
5:45 AM	238	31	
6:00 AM	333	37	
6:15 AM	389	55	
6:30 AM	460	71	
6:45 AM	504	82	
7:00 AM	514	88	
7:15 AM	533	78	
7:30 AM	512	75	
7:45 AM	474	68	
8:00 AM	418	62	
8:15 AM	378	69	
8:30 AM	352	68	
8:45 AM	318	65	
9:00 AM	315	66	
9:15 AM	311	57	
9:30 AM	312	57	
9:45 AM	327	59	
10:00 AM	323	62	
10:15 AM	322	73	
10:30 AM	328	72	
10:45 AM	329	77	
11:00 AM	340	79	
11:15 AM	359	71	
11:30 AM	362	75	
11:45 AM	368	74	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 PM	382	82	
12:15 PM	363	87	
12:30 PM	364	95	
12:45 PM	383	108	
1:00 PM	374	114	
1:15 PM	383	117	
1:30 PM	399	119	
1:45 PM	401	116	
2:00 PM	419	121	
2:15 PM	444	141	
2:30 PM	479	146	
2:45 PM	512	146	
3:00 PM	558	147	
3:15 PM	593	133	
3:30 PM	593	136	
3:45 PM	598	144	
4:00 PM	589	149	
4:15 PM	597	157	
4:30 PM	624	148	
4:45 PM	593	148	
5:00 PM	566	138	
5:15 PM	524	133	
5:30 PM	449	141	
5:45 PM	421	134	
6:00 PM	371	129	
6:15 PM	323	116	
6:30 PM	313	98	
6:45 PM	302	91	
7:00 PM	277	82	
7:15 PM	280	83	
7:30 PM	255	79	
7:45 PM	235	78	
8:00 PM	233	76	
8:15 PM	224	69	
8:30 PM	233	61	
8:45 PM	212	51	
9:00 PM	195	36	
9:15 PM	168	21	
9:30 PM	131	26	
9:45 PM	117	24	
10:00 PM	107	29	
10:15 PM	83	37	
10:30 PM	67	26	
10:45 PM	54	23	
11:00 PM	47	16	

MUTCD Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
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Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	No
---	----

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	No
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	N/A
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
<i>*If applicable, attach all supporting calculations and documentation.</i>	

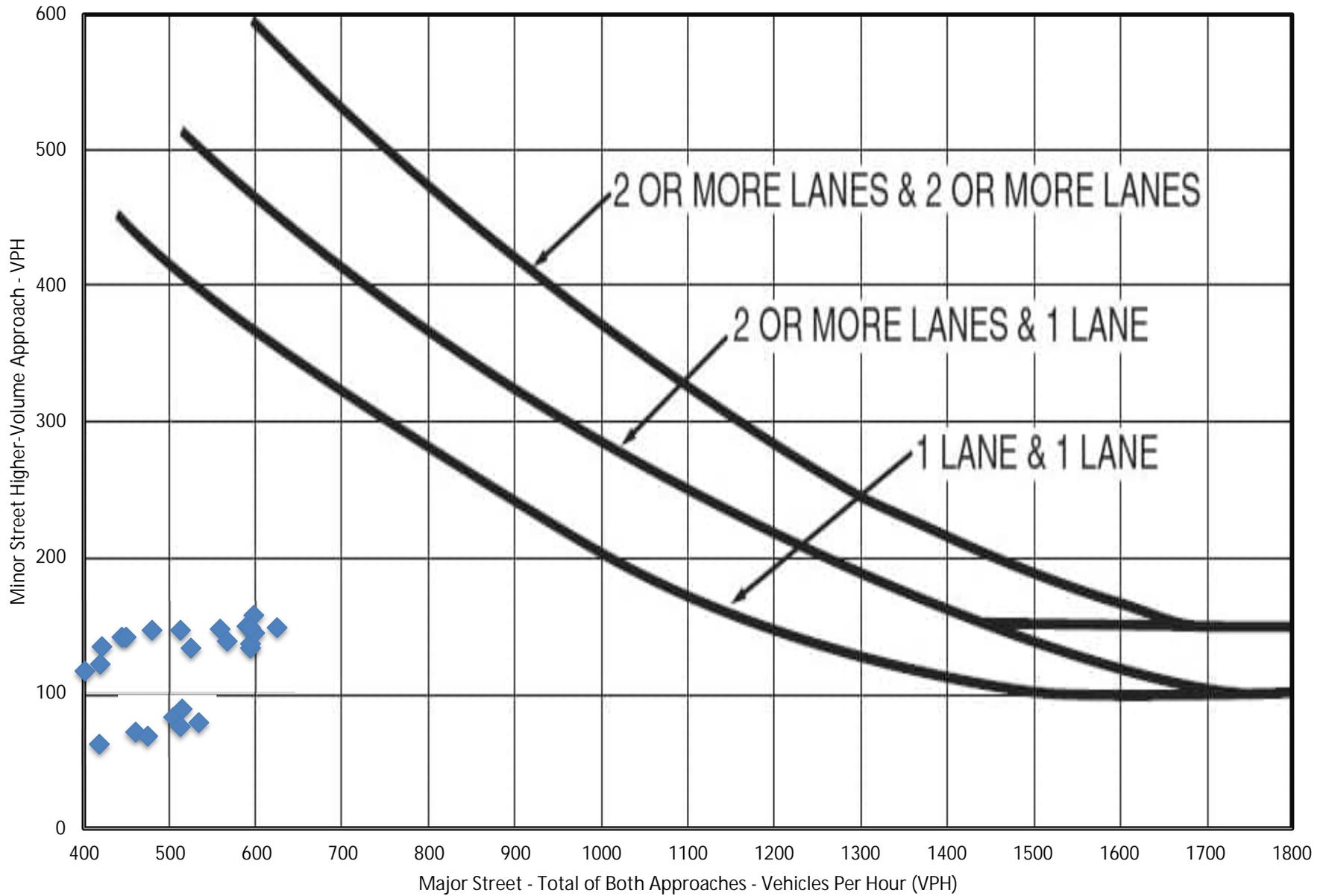
Total Number of Unique Hours Met On Figure 4C-3
0

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	26	6	
12:15 AM	18	5	
12:30 AM	12	5	
12:45 AM	8	3	
1:00 AM	8	2	
1:15 AM	9	1	
1:30 AM	12	1	
1:45 AM	11	2	
2:00 AM	12	2	
2:15 AM	11	2	
2:30 AM	11	3	
2:45 AM	14	2	
3:00 AM	12	4	
3:15 AM	15	5	
3:30 AM	24	5	
3:45 AM	40	9	
4:00 AM	64	14	
4:15 AM	80	19	
4:30 AM	97	19	
4:45 AM	118	18	
5:00 AM	134	17	
5:15 AM	164	21	
5:30 AM	187	25	
5:45 AM	238	31	
6:00 AM	333	37	
6:15 AM	389	55	
6:30 AM	460	71	
6:45 AM	504	82	
7:00 AM	514	88	
7:15 AM	533	78	
7:30 AM	512	75	
7:45 AM	474	68	
8:00 AM	418	62	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:15 AM	378	69	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:30 AM	352	68	
8:45 AM	318	65	
9:00 AM	315	66	
9:15 AM	311	57	
9:30 AM	312	57	
9:45 AM	327	59	
10:00 AM	323	62	
10:15 AM	322	73	
10:30 AM	328	72	
10:45 AM	329	77	
11:00 AM	340	79	
11:15 AM	359	71	
11:30 AM	362	75	
11:45 AM	368	74	
12:00 PM	382	82	
12:15 PM	363	87	
12:30 PM	364	95	
12:45 PM	383	108	
1:00 PM	374	114	
1:15 PM	383	117	
1:30 PM	399	119	
1:45 PM	401	116	
2:00 PM	419	121	
2:15 PM	444	141	
2:30 PM	479	146	
2:45 PM	512	146	
3:00 PM	558	147	
3:15 PM	593	133	
3:30 PM	593	136	
3:45 PM	598	144	
4:00 PM	589	149	
4:15 PM	597	157	
4:30 PM	624	148	
4:45 PM	593	148	
5:00 PM	566	138	
5:15 PM	524	133	
5:30 PM	449	141	
5:45 PM	421	134	
6:00 PM	371	129	
6:15 PM	323	116	
6:30 PM	313	98	
6:45 PM	302	91	
7:00 PM	277	82	
7:15 PM	280	83	
7:30 PM	255	79	
7:45 PM	235	78	
8:00 PM	233	76	
8:15 PM	224	69	
8:30 PM	233	61	
8:45 PM	212	51	
9:00 PM	195	36	
9:15 PM	168	21	
9:30 PM	131	26	
9:45 PM	117	24	
10:00 PM	107	29	
10:15 PM	83	37	
10:30 PM	67	26	
10:45 PM	54	23	
11:00 PM	47	16	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



WARRANT PA-1, ADT VOLUME WARRANT

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
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Estimated ADT of Major Street (Both Approaches)*: 6617 vpd
**If applicable, attach all supporting calculations and documentation.*

Estimated ADT of Higher-Volume Minor Street (One Direction Only)*: 1558 vpd
**If applicable, attach all supporting calculations and documentation.*

Condition A - ADT Volume Warrant					
Number of lanes for moving traffic on each approach		Estimated ADT*			
		Major Street (Both Approaches)		Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	100%	70%	100%	70%
1	1	10,000	7,000	3,000	2,100
2 or More	1	12,000	8,400	3,000	2,100
2 or More	2 or More	12,000	8,400	4,000	2,800
1	2 or More	10,000	7,000	4,000	2,800

Condition B - ADT Volume Warrant					
Number of lanes for moving traffic on each approach		Estimated ADT*			
		Major Street (Both Approaches)		Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	100%	70%	100%	70%
1	1	15,000	10,500	1,500	1,050
2 or More	1	18,000	12,600	1,500	1,050
2 or More	2 or More	18,000	12,600	2,000	1,400
1	2 or More	15,000	10,500	2,000	1,400

Condition A Met?	No
Condition B Met?	No

STUDY AND ANALYSIS INFORMATION

Municipality:
 County:
 PennDOT Engineering District:

Analysis Date:
 Conducted By:
 Agency/Company Name:

Analysis Information

Data Collection Date:
 Day of the Week:

Is the intersection in a built-up area of an isolated community of <10,000 population?

Major Street Information

Major Street Name and Route Number:
 Major Street Approach #1 Direction:
 Major Street Approach #2 Direction:

Number of Lanes for Moving Traffic on Each Major Street Approach: LANE(S)
 Speed Limit or 85th Percentile Speed on the Major Street: MPH

Minor Street Information

Minor Street Name and Route Number:
 Minor Street Approach #1 Direction:
 Minor Street Approach #2 Direction:

Number of Lanes for Moving Traffic on Each Minor Street Approach: LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	Yes	No
Warrant 2, Four-Hour Vehicular Volume	Yes	No
Warrant 3, Peak Hour	Yes	No
Warrant 4, Pedestrian Volume	No	N/A
Warrant 5, School Crossing	No	N/A
Warrant 6, Coordinated Signal System	No	N/A
Warrant 7, Crash Experience	No	N/A
Warrant 8, Roadway Network	No	N/A
Warrant 9, Intersection Near a Grade Crossing	No	N/A
Warrant PA-1, ADT Volume Warrant	Yes	No
Warrant PA-2, Midblock and Trail Crossings	No	N/A

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (E-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 AM	12:14 AM	4	5	9	0	
12:15 AM	12:29 AM	3	5	8	2	
12:30 AM	12:44 AM	5	2	7	0	
12:45 AM	12:59 AM	2	0	2	0	
1:00 AM	1:14 AM	0	1	1	1	
1:15 AM	1:29 AM	1	1	2	0	
1:30 AM	1:44 AM	2	1	3	0	
1:45 AM	1:59 AM	1	1	2	1	
2:00 AM	2:14 AM	1	1	2	1	
2:15 AM	2:29 AM	2	3	5	1	
2:30 AM	2:44 AM	1	1	2	1	
2:45 AM	2:59 AM	1	2	3	1	
3:00 AM	3:14 AM	1	0	1	2	
3:15 AM	3:29 AM	2	3	5	2	
3:30 AM	3:44 AM	4	1	5	4	
3:45 AM	3:59 AM	0	1	1	4	
4:00 AM	4:14 AM	3	1	4	5	
4:15 AM	4:29 AM	8	6	14	7	
4:30 AM	4:44 AM	14	7	21	14	
4:45 AM	4:59 AM	15	10	25	20	
5:00 AM	5:14 AM	13	7	20	14	
5:15 AM	5:29 AM	23	8	31	14	
5:30 AM	5:44 AM	29	13	42	17	
5:45 AM	5:59 AM	31	10	41	36	
6:00 AM	6:14 AM	34	16	50	17	
6:15 AM	6:29 AM	37	17	54	25	
6:30 AM	6:44 AM	56	37	93	52	
6:45 AM	6:59 AM	85	51	136	75	
7:00 AM	7:14 AM	60	46	106	63	
7:15 AM	7:29 AM	80	45	125	68	
7:30 AM	7:44 AM	89	48	137	85	
7:45 AM	7:59 AM	98	48	146	110	
8:00 AM	8:14 AM	77	48	125	52	
8:15 AM	8:29 AM	54	50	104	48	
8:30 AM	8:44 AM	47	52	99	45	
8:45 AM	8:59 AM	55	35	90	45	
9:00 AM	9:14 AM	40	45	85	32	
9:15 AM	9:29 AM	44	34	78	40	
9:30 AM	9:44 AM	32	33	65	19	
9:45 AM	9:59 AM	43	44	87	33	
10:00 AM	10:14 AM	45	36	81	28	
10:15 AM	10:29 AM	44	35	79	40	
10:30 AM	10:44 AM	43	37	80	42	
10:45 AM	10:59 AM	57	26	83	47	
11:00 AM	11:14 AM	48	32	80	32	
11:15 AM	11:29 AM	48	37	85	30	
11:30 AM	11:44 AM	48	33	81	34	
11:45 AM	11:59 AM	40	54	94	44	

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (E-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 PM	12:14 PM	55	44	99	47	
12:15 PM	12:29 PM	40	48	88	33	
12:30 PM	12:44 PM	44	43	87	31	
12:45 PM	12:59 PM	51	57	108	28	
1:00 PM	1:14 PM	47	33	80	39	
1:15 PM	1:29 PM	50	39	89	38	
1:30 PM	1:44 PM	59	47	106	34	
1:45 PM	1:59 PM	53	46	99	30	
2:00 PM	2:14 PM	37	52	89	32	
2:15 PM	2:29 PM	56	49	105	30	
2:30 PM	2:44 PM	54	54	108	35	
2:45 PM	2:59 PM	69	48	117	45	
3:00 PM	3:14 PM	66	48	114	50	
3:15 PM	3:29 PM	83	57	140	42	
3:30 PM	3:44 PM	88	53	141	47	
3:45 PM	3:59 PM	85	78	163	63	
4:00 PM	4:14 PM	88	61	149	55	
4:15 PM	4:29 PM	74	66	140	30	
4:30 PM	4:44 PM	71	75	146	36	
4:45 PM	4:59 PM	80	74	154	43	
5:00 PM	5:14 PM	86	71	157	43	
5:15 PM	5:29 PM	92	75	167	57	
5:30 PM	5:44 PM	65	50	115	35	
5:45 PM	5:59 PM	74	53	127	40	
6:00 PM	6:14 PM	68	47	115	33	
6:15 PM	6:29 PM	52	40	92	32	
6:30 PM	6:44 PM	47	40	87	29	
6:45 PM	6:59 PM	47	30	77	28	
7:00 PM	7:14 PM	38	29	67	25	
7:15 PM	7:29 PM	41	41	82	17	
7:30 PM	7:44 PM	38	38	76	18	
7:45 PM	7:59 PM	22	30	52	15	
8:00 PM	8:14 PM	35	35	70	10	
8:15 PM	8:29 PM	31	26	57	15	
8:30 PM	8:44 PM	23	33	56	16	
8:45 PM	8:59 PM	28	22	50	11	
9:00 PM	9:14 PM	29	32	61	14	
9:15 PM	9:29 PM	42	24	66	7	
9:30 PM	9:44 PM	17	18	35	7	
9:45 PM	9:59 PM	14	19	33	9	
10:00 PM	10:14 PM	20	14	34	4	
10:15 PM	10:29 PM	19	10	29	6	
10:30 PM	10:44 PM	14	7	21	3	
10:45 PM	10:59 PM	14	9	23	6	
11:00 PM	11:14 PM	8	2	10	2	
11:15 PM	11:29 PM	6	7	13	6	
11:30 PM	11:44 PM	3	5	8	1	
11:45 PM	11:59 PM	6	10	16	2	

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (E-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
Approach Totals:		3699	2918	6617	2532	0

MUTCD WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
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Combination of Conditions A and B Necessary?*: No

**Only applicable for Warrant 1 if after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems. See Section 4C.02 of the 2009 MUTCD for application.*

Condition A - Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or More	1	600	480	420	336	150	120	105	84
2 or More	2 or More	600	480	420	336	200	160	140	112
1	2 or More	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or More	1	900	720	630	504	75	60	53	42
2 or More	2 or More	900	720	630	504	100	80	70	56
1	2 or More	750	600	525	420	100	80	70	56

Condition A Evaluation

Number of Unique Hours Met: 4 Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 0 Condition B Satisfied? No

Combination of Condition A and Condition B Evaluation

Number of Unique Hours Met for Condition A: N/A

Number of Unique Hours Met for Condition B: N/A

Combination of Condition A and Condition B Satisfied? N/A

MUTCD WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

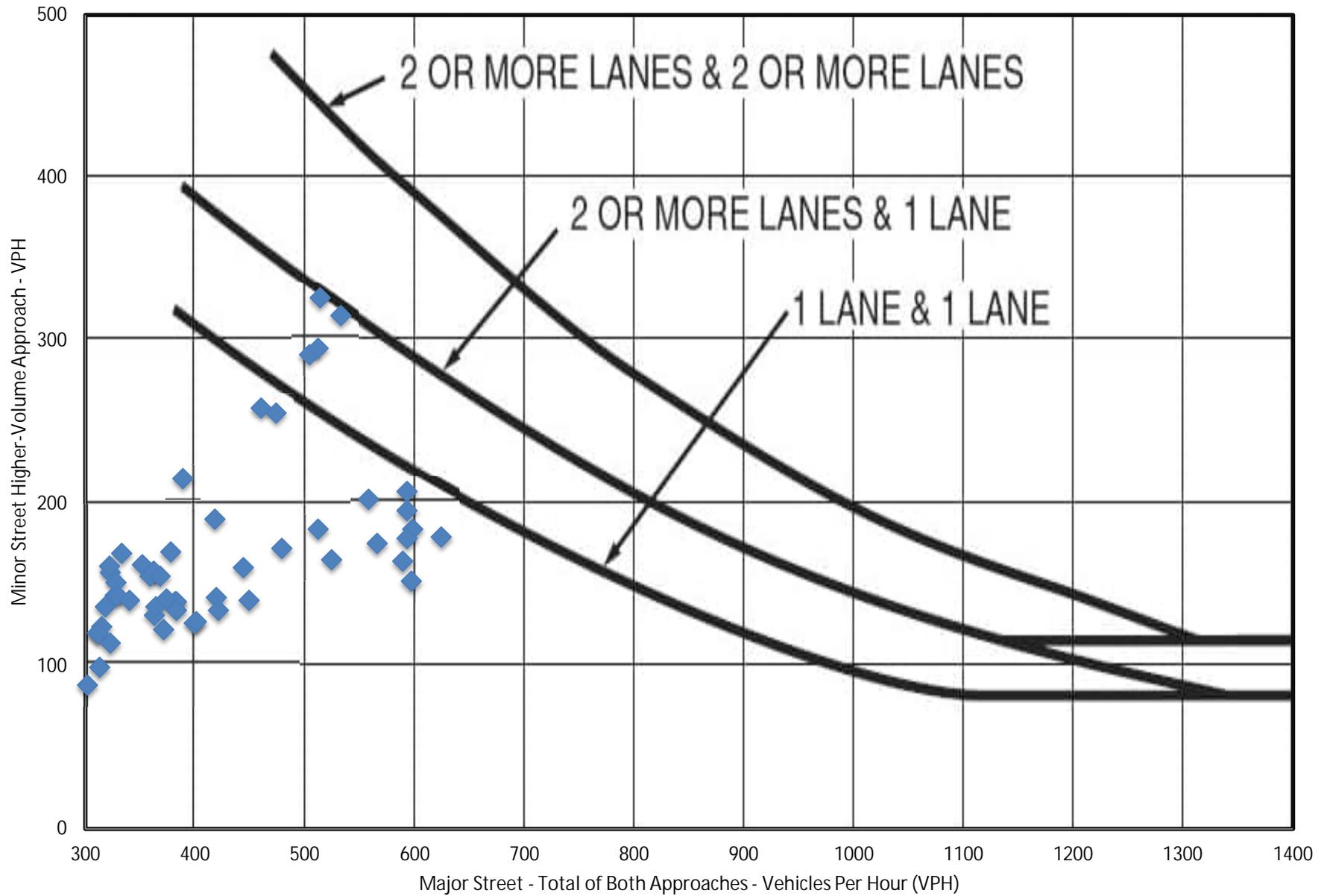
Total Number of Unique Hours Met On Figure 4C-1
1

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?
No

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	26	2	
12:15 AM	18	3	
12:30 AM	12	1	
12:45 AM	8	1	
1:00 AM	8	2	
1:15 AM	9	2	
1:30 AM	12	3	
1:45 AM	11	4	
2:00 AM	12	4	
2:15 AM	11	5	
2:30 AM	11	6	
2:45 AM	14	9	
3:00 AM	12	12	
3:15 AM	15	15	
3:30 AM	24	20	
3:45 AM	40	30	
4:00 AM	64	46	
4:15 AM	80	55	
4:30 AM	97	62	
4:45 AM	118	65	
5:00 AM	134	81	
5:15 AM	164	84	
5:30 AM	187	95	
5:45 AM	238	130	
6:00 AM	333	169	
6:15 AM	389	215	
6:30 AM	460	258	
6:45 AM	504	291	Met
7:00 AM	514	326	Met
7:15 AM	533	315	Met
7:30 AM	512	295	Met
7:45 AM	474	255	
8:00 AM	418	190	
8:15 AM	378	170	
8:30 AM	352	162	
8:45 AM	318	136	
9:00 AM	315	124	
9:15 AM	311	120	
9:30 AM	312	120	
9:45 AM	327	143	
10:00 AM	323	157	
10:15 AM	322	161	
10:30 AM	328	151	
10:45 AM	329	143	
11:00 AM	340	140	
11:15 AM	359	155	
11:30 AM	362	158	
11:45 AM	368	155	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 PM	382	139	
12:15 PM	363	131	
12:30 PM	364	136	
12:45 PM	383	139	
1:00 PM	374	141	
1:15 PM	383	134	
1:30 PM	399	126	
1:45 PM	401	127	
2:00 PM	419	142	
2:15 PM	444	160	
2:30 PM	479	172	
2:45 PM	512	184	
3:00 PM	558	202	
3:15 PM	593	207	
3:30 PM	593	195	
3:45 PM	598	184	
4:00 PM	589	164	
4:15 PM	597	152	
4:30 PM	624	179	
4:45 PM	593	178	
5:00 PM	566	175	
5:15 PM	524	165	
5:30 PM	449	140	
5:45 PM	421	134	
6:00 PM	371	122	
6:15 PM	323	114	
6:30 PM	313	99	
6:45 PM	302	88	
7:00 PM	277	75	
7:15 PM	280	60	
7:30 PM	255	58	
7:45 PM	235	56	
8:00 PM	233	52	
8:15 PM	224	56	
8:30 PM	233	48	
8:45 PM	212	39	
9:00 PM	195	37	
9:15 PM	168	27	
9:30 PM	131	26	
9:45 PM	117	22	
10:00 PM	107	19	
10:15 PM	83	17	
10:30 PM	67	17	
10:45 PM	54	15	
11:00 PM	47	11	

MUTCD Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	No
---	----

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	No
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	N/A
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
<i>*If applicable, attach all supporting calculations and documentation.</i>	

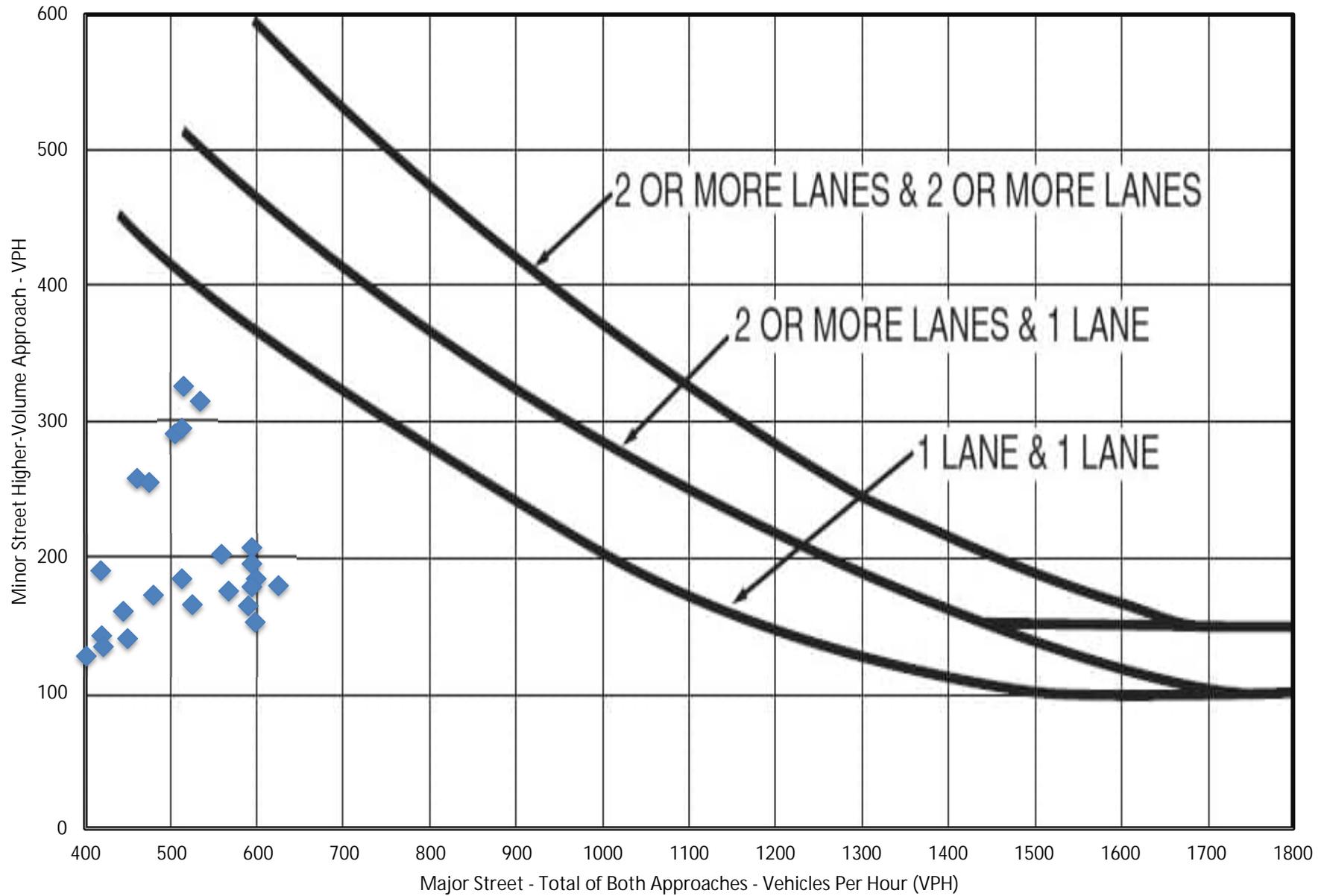
Total Number of Unique Hours Met On Figure 4C-3
0

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	26	2	
12:15 AM	18	3	
12:30 AM	12	1	
12:45 AM	8	1	
1:00 AM	8	2	
1:15 AM	9	2	
1:30 AM	12	3	
1:45 AM	11	4	
2:00 AM	12	4	
2:15 AM	11	5	
2:30 AM	11	6	
2:45 AM	14	9	
3:00 AM	12	12	
3:15 AM	15	15	
3:30 AM	24	20	
3:45 AM	40	30	
4:00 AM	64	46	
4:15 AM	80	55	
4:30 AM	97	62	
4:45 AM	118	65	
5:00 AM	134	81	
5:15 AM	164	84	
5:30 AM	187	95	
5:45 AM	238	130	
6:00 AM	333	169	
6:15 AM	389	215	
6:30 AM	460	258	
6:45 AM	504	291	
7:00 AM	514	326	
7:15 AM	533	315	
7:30 AM	512	295	
7:45 AM	474	255	
8:00 AM	418	190	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:15 AM	378	170	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:30 AM	352	162	
8:45 AM	318	136	
9:00 AM	315	124	
9:15 AM	311	120	
9:30 AM	312	120	
9:45 AM	327	143	
10:00 AM	323	157	
10:15 AM	322	161	
10:30 AM	328	151	
10:45 AM	329	143	
11:00 AM	340	140	
11:15 AM	359	155	
11:30 AM	362	158	
11:45 AM	368	155	
12:00 PM	382	139	
12:15 PM	363	131	
12:30 PM	364	136	
12:45 PM	383	139	
1:00 PM	374	141	
1:15 PM	383	134	
1:30 PM	399	126	
1:45 PM	401	127	
2:00 PM	419	142	
2:15 PM	444	160	
2:30 PM	479	172	
2:45 PM	512	184	
3:00 PM	558	202	
3:15 PM	593	207	
3:30 PM	593	195	
3:45 PM	598	184	
4:00 PM	589	164	
4:15 PM	597	152	
4:30 PM	624	179	
4:45 PM	593	178	
5:00 PM	566	175	
5:15 PM	524	165	
5:30 PM	449	140	
5:45 PM	421	134	
6:00 PM	371	122	
6:15 PM	323	114	
6:30 PM	313	99	
6:45 PM	302	88	
7:00 PM	277	75	
7:15 PM	280	60	
7:30 PM	255	58	
7:45 PM	235	56	
8:00 PM	233	52	
8:15 PM	224	56	
8:30 PM	233	48	
8:45 PM	212	39	
9:00 PM	195	37	
9:15 PM	168	27	
9:30 PM	131	26	
9:45 PM	117	22	
10:00 PM	107	19	
10:15 PM	83	17	
10:30 PM	67	17	
10:45 PM	54	15	
11:00 PM	47	11	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



WARRANT PA-1, ADT VOLUME WARRANT

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
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Estimated ADT of Major Street (Both Approaches)*: 6617 vpd
**If applicable, attach all supporting calculations and documentation.*

Estimated ADT of Higher-Volume Minor Street (One Direction Only)*: 2532 vpd
**If applicable, attach all supporting calculations and documentation.*

Condition A - ADT Volume Warrant					
Number of lanes for moving traffic on each approach		Estimated ADT*			
		Major Street (Both Approaches)		Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	100%	70%	100%	70%
1	1	10,000	7,000	3,000	2,100
2 or More	1	12,000	8,400	3,000	2,100
2 or More	2 or More	12,000	8,400	4,000	2,800
1	2 or More	10,000	7,000	4,000	2,800

Condition B - ADT Volume Warrant					
Number of lanes for moving traffic on each approach		Estimated ADT*			
		Major Street (Both Approaches)		Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	100%	70%	100%	70%
1	1	15,000	10,500	1,500	1,050
2 or More	1	18,000	12,600	1,500	1,050
2 or More	2 or More	18,000	12,600	2,000	1,400
1	2 or More	15,000	10,500	2,000	1,400

Condition A Met? No
 Condition B Met? No

STUDY AND ANALYSIS INFORMATION

Municipality:
 County:
 PennDOT Engineering District:

Analysis Date:
 Conducted By:
 Agency/Company Name:

Analysis Information

Data Collection Date:
 Day of the Week:

Is the intersection in a built-up area of an isolated community of <10,000 population?

Major Street Information

Major Street Name and Route Number:
 Major Street Approach #1 Direction:
 Major Street Approach #2 Direction:

Number of Lanes for Moving Traffic on Each Major Street Approach: LANE(S)
 Speed Limit or 85th Percentile Speed on the Major Street: MPH

Minor Street Information

Minor Street Name and Route Number:
 Minor Street Approach #1 Direction:
 Minor Street Approach #2 Direction:

Number of Lanes for Moving Traffic on Each Minor Street Approach: LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	Yes	No
Warrant 2, Four-Hour Vehicular Volume	Yes	Yes
Warrant 3, Peak Hour	Yes	No
Warrant 4, Pedestrian Volume	No	N/A
Warrant 5, School Crossing	No	N/A
Warrant 6, Coordinated Signal System	No	N/A
Warrant 7, Crash Experience	No	N/A
Warrant 8, Roadway Network	No	N/A
Warrant 9, Intersection Near a Grade Crossing	No	N/A
Warrant PA-1, ADT Volume Warrant	Yes	No
Warrant PA-2, Midblock and Trail Crossings	No	N/A

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (E-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 AM	12:14 AM	5	6	11	0	
12:15 AM	12:29 AM	4	6	10	2	
12:30 AM	12:44 AM	6	2	8	0	
12:45 AM	12:59 AM	2	0	2	0	
1:00 AM	1:14 AM	0	1	1	1	
1:15 AM	1:29 AM	1	1	2	0	
1:30 AM	1:44 AM	2	1	3	0	
1:45 AM	1:59 AM	1	1	2	1	
2:00 AM	2:14 AM	1	1	2	1	
2:15 AM	2:29 AM	2	4	6	1	
2:30 AM	2:44 AM	1	1	2	1	
2:45 AM	2:59 AM	1	2	3	1	
3:00 AM	3:14 AM	1	0	1	2	
3:15 AM	3:29 AM	2	4	6	2	
3:30 AM	3:44 AM	5	1	6	5	
3:45 AM	3:59 AM	0	1	1	5	
4:00 AM	4:14 AM	4	1	5	6	
4:15 AM	4:29 AM	10	7	17	9	
4:30 AM	4:44 AM	17	9	26	17	
4:45 AM	4:59 AM	19	12	31	25	
5:00 AM	5:14 AM	16	9	25	17	
5:15 AM	5:29 AM	29	10	39	17	
5:30 AM	5:44 AM	36	16	52	21	
5:45 AM	5:59 AM	38	12	50	45	
6:00 AM	6:14 AM	42	20	62	21	
6:15 AM	6:29 AM	46	21	67	31	
6:30 AM	6:44 AM	69	46	115	64	
6:45 AM	6:59 AM	105	63	168	93	
7:00 AM	7:14 AM	74	57	131	78	
7:15 AM	7:29 AM	106	99	205	110	
7:30 AM	7:44 AM	117	102	219	131	
7:45 AM	7:59 AM	128	102	230	162	
8:00 AM	8:14 AM	102	102	204	90	
8:15 AM	8:29 AM	67	62	129	59	
8:30 AM	8:44 AM	58	64	122	56	
8:45 AM	8:59 AM	68	43	111	56	
9:00 AM	9:14 AM	50	56	106	40	
9:15 AM	9:29 AM	55	42	97	50	
9:30 AM	9:44 AM	40	41	81	24	
9:45 AM	9:59 AM	53	55	108	41	
10:00 AM	10:14 AM	56	45	101	35	
10:15 AM	10:29 AM	55	43	98	50	
10:30 AM	10:44 AM	53	46	99	52	
10:45 AM	10:59 AM	71	32	103	58	
11:00 AM	11:14 AM	59	40	99	40	
11:15 AM	11:29 AM	59	46	105	37	
11:30 AM	11:44 AM	59	41	100	42	
11:45 AM	11:59 AM	50	67	117	55	

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (E-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 PM	12:14 PM	68	55	123	58	
12:15 PM	12:29 PM	50	59	109	41	
12:30 PM	12:44 PM	55	53	108	38	
12:45 PM	12:59 PM	63	71	134	35	
1:00 PM	1:14 PM	58	41	99	48	
1:15 PM	1:29 PM	62	48	110	47	
1:30 PM	1:44 PM	73	58	131	42	
1:45 PM	1:59 PM	66	57	123	37	
2:00 PM	2:14 PM	46	64	110	40	
2:15 PM	2:29 PM	69	61	130	37	
2:30 PM	2:44 PM	67	67	134	43	
2:45 PM	2:59 PM	86	59	145	56	
3:00 PM	3:14 PM	82	59	141	62	
3:15 PM	3:29 PM	103	71	174	52	
3:30 PM	3:44 PM	109	66	175	58	
3:45 PM	3:59 PM	105	97	202	78	
4:00 PM	4:14 PM	109	76	185	68	
4:15 PM	4:29 PM	92	82	174	37	
4:30 PM	4:44 PM	88	93	181	45	
4:45 PM	4:59 PM	153	99	252	57	
5:00 PM	5:14 PM	161	95	256	57	
5:15 PM	5:29 PM	168	100	268	75	
5:30 PM	5:44 PM	135	69	204	42	
5:45 PM	5:59 PM	92	66	158	50	
6:00 PM	6:14 PM	84	58	142	41	
6:15 PM	6:29 PM	64	50	114	40	
6:30 PM	6:44 PM	58	50	108	36	
6:45 PM	6:59 PM	58	37	95	35	
7:00 PM	7:14 PM	47	36	83	31	
7:15 PM	7:29 PM	51	51	102	21	
7:30 PM	7:44 PM	47	47	94	22	
7:45 PM	7:59 PM	27	37	64	19	
8:00 PM	8:14 PM	43	43	86	12	
8:15 PM	8:29 PM	38	32	70	19	
8:30 PM	8:44 PM	29	41	70	20	
8:45 PM	8:59 PM	35	27	62	14	
9:00 PM	9:14 PM	36	40	76	17	
9:15 PM	9:29 PM	52	30	82	9	
9:30 PM	9:44 PM	21	22	43	9	
9:45 PM	9:59 PM	17	24	41	11	
10:00 PM	10:14 PM	25	17	42	5	
10:15 PM	10:29 PM	24	12	36	7	
10:30 PM	10:44 PM	17	9	26	4	
10:45 PM	10:59 PM	17	11	28	7	
11:00 PM	11:14 PM	10	2	12	2	
11:15 PM	11:29 PM	7	9	16	7	
11:30 PM	11:44 PM	4	6	10	1	
11:45 PM	11:59 PM	7	12	19	2	

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (E-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
Approach Totals:		4823	3812	8635	3248	0

MUTCD WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Combination of Conditions A and B Necessary?*: No

**Only applicable for Warrant 1 if after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems. See Section 4C.02 of the 2009 MUTCD for application.*

Condition A - Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or More	1	600	480	420	336	150	120	105	84
2 or More	2 or More	600	480	420	336	200	160	140	112
1	2 or More	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or More	1	900	720	630	504	75	60	53	42
2 or More	2 or More	900	720	630	504	100	80	70	56
1	2 or More	750	600	525	420	100	80	70	56

Condition A Evaluation

Number of Unique Hours Met: 6 Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 3 Condition B Satisfied? No

Combination of Condition A and Condition B Evaluation

Number of Unique Hours Met for Condition A: N/A

Number of Unique Hours Met for Condition B: N/A

Combination of Condition A and Condition B Satisfied? N/A

MUTCD WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

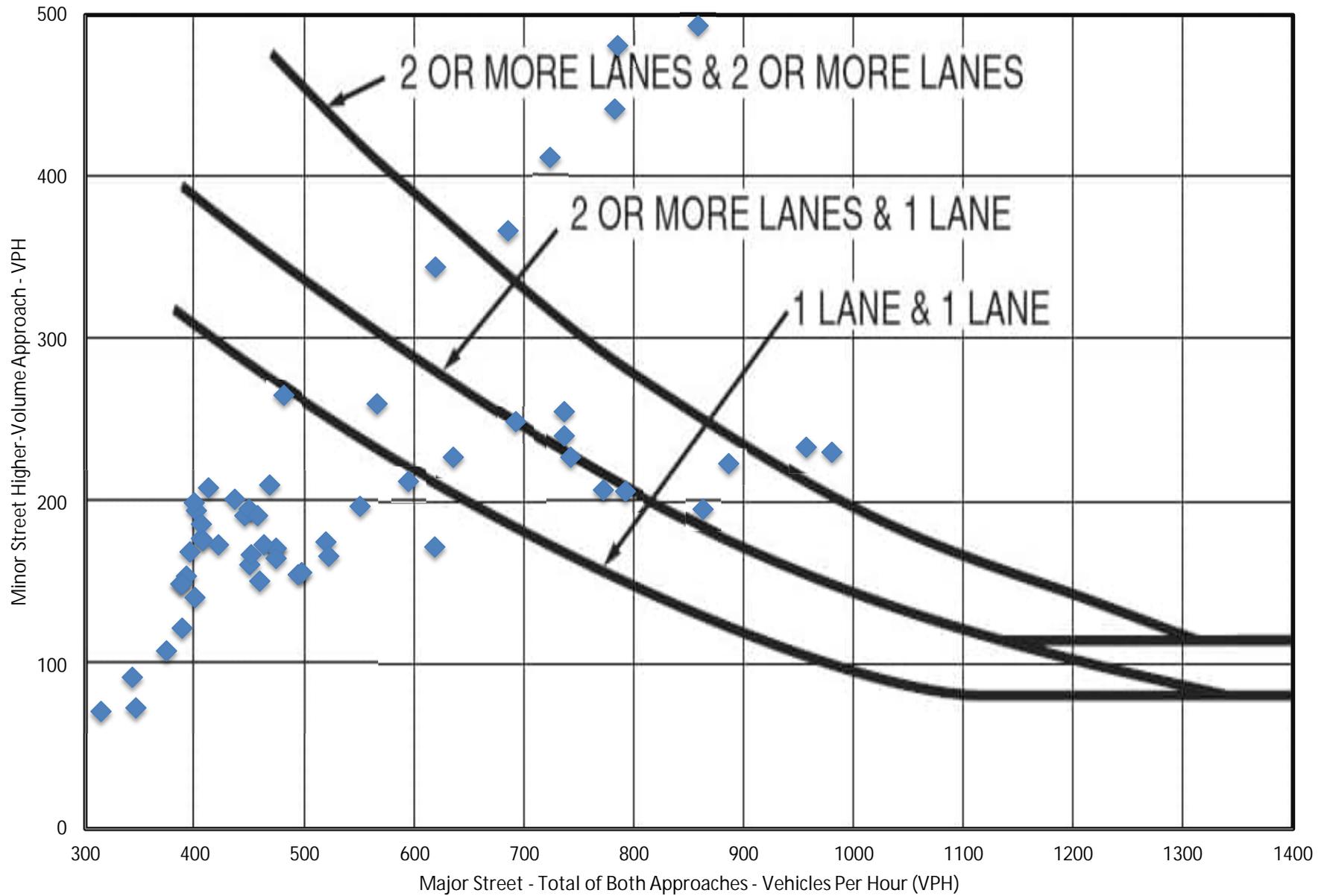
Total Number of Unique Hours Met On Figure 4C-1
5

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?
No

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	31	2	
12:15 AM	21	3	
12:30 AM	13	1	
12:45 AM	8	1	
1:00 AM	8	2	
1:15 AM	9	2	
1:30 AM	13	3	
1:45 AM	12	4	
2:00 AM	13	4	
2:15 AM	12	5	
2:30 AM	12	6	
2:45 AM	16	10	
3:00 AM	14	14	
3:15 AM	18	18	
3:30 AM	29	25	
3:45 AM	49	37	
4:00 AM	79	57	
4:15 AM	99	68	
4:30 AM	121	76	
4:45 AM	147	80	
5:00 AM	166	100	
5:15 AM	203	104	
5:30 AM	231	118	
5:45 AM	294	161	
6:00 AM	412	209	
6:15 AM	481	266	
6:30 AM	619	345	Met
6:45 AM	723	412	Met
7:00 AM	785	481	Met
7:15 AM	858	493	Met
7:30 AM	782	442	Met
7:45 AM	685	367	Met
8:00 AM	566	261	Met
8:15 AM	468	211	
8:30 AM	436	202	
8:45 AM	395	170	
9:00 AM	392	155	
9:15 AM	387	150	
9:30 AM	388	150	
9:45 AM	406	178	
10:00 AM	401	195	
10:15 AM	399	200	
10:30 AM	406	187	
10:45 AM	407	177	
11:00 AM	421	174	
11:15 AM	445	192	
11:30 AM	449	196	
11:45 AM	457	192	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 PM	474	172	
12:15 PM	450	162	
12:30 PM	451	168	
12:45 PM	474	172	
1:00 PM	463	174	
1:15 PM	474	166	
1:30 PM	494	156	
1:45 PM	497	157	
2:00 PM	519	176	
2:15 PM	550	198	
2:30 PM	594	213	
2:45 PM	635	228	Met
3:00 PM	692	250	Met
3:15 PM	736	256	Met
3:30 PM	736	241	Met
3:45 PM	742	228	Met
4:00 PM	792	207	Met
4:15 PM	863	196	Met
4:30 PM	957	234	Met
4:45 PM	980	231	Met
5:00 PM	886	224	Met
5:15 PM	772	208	Met
5:30 PM	618	173	
5:45 PM	522	167	
6:00 PM	459	152	
6:15 PM	400	142	
6:30 PM	388	123	
6:45 PM	374	109	
7:00 PM	343	93	
7:15 PM	346	74	
7:30 PM	314	72	
7:45 PM	290	70	
8:00 PM	288	65	
8:15 PM	278	70	
8:30 PM	290	60	
8:45 PM	263	49	
9:00 PM	242	46	
9:15 PM	208	34	
9:30 PM	162	32	
9:45 PM	145	27	
10:00 PM	132	23	
10:15 PM	102	20	
10:30 PM	82	20	
10:45 PM	66	17	
11:00 PM	57	12	

MUTCD Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	No
---	----

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	No
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	N/A
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
<i>*If applicable, attach all supporting calculations and documentation.</i>	

Total Number of Unique Hours Met On Figure 4C-3
3

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	31	2	
12:15 AM	21	3	
12:30 AM	13	1	
12:45 AM	8	1	
1:00 AM	8	2	
1:15 AM	9	2	
1:30 AM	13	3	
1:45 AM	12	4	
2:00 AM	13	4	
2:15 AM	12	5	
2:30 AM	12	6	
2:45 AM	16	10	
3:00 AM	14	14	
3:15 AM	18	18	
3:30 AM	29	25	
3:45 AM	49	37	
4:00 AM	79	57	
4:15 AM	99	68	
4:30 AM	121	76	
4:45 AM	147	80	
5:00 AM	166	100	
5:15 AM	203	104	
5:30 AM	231	118	
5:45 AM	294	161	
6:00 AM	412	209	
6:15 AM	481	266	
6:30 AM	619	345	
6:45 AM	723	412	Met
7:00 AM	785	481	Met
7:15 AM	858	493	Met
7:30 AM	782	442	Met
7:45 AM	685	367	Met
8:00 AM	566	261	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:15 AM	468	211	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:30 AM	436	202	
8:45 AM	395	170	
9:00 AM	392	155	
9:15 AM	387	150	
9:30 AM	388	150	
9:45 AM	406	178	
10:00 AM	401	195	
10:15 AM	399	200	
10:30 AM	406	187	
10:45 AM	407	177	
11:00 AM	421	174	
11:15 AM	445	192	
11:30 AM	449	196	
11:45 AM	457	192	
12:00 PM	474	172	
12:15 PM	450	162	
12:30 PM	451	168	
12:45 PM	474	172	
1:00 PM	463	174	
1:15 PM	474	166	
1:30 PM	494	156	
1:45 PM	497	157	
2:00 PM	519	176	
2:15 PM	550	198	
2:30 PM	594	213	
2:45 PM	635	228	
3:00 PM	692	250	
3:15 PM	736	256	
3:30 PM	736	241	
3:45 PM	742	228	
4:00 PM	792	207	
4:15 PM	863	196	
4:30 PM	957	234	Met
4:45 PM	980	231	Met
5:00 PM	886	224	
5:15 PM	772	208	
5:30 PM	618	173	
5:45 PM	522	167	
6:00 PM	459	152	
6:15 PM	400	142	
6:30 PM	388	123	
6:45 PM	374	109	
7:00 PM	343	93	
7:15 PM	346	74	
7:30 PM	314	72	
7:45 PM	290	70	
8:00 PM	288	65	
8:15 PM	278	70	
8:30 PM	290	60	
8:45 PM	263	49	
9:00 PM	242	46	
9:15 PM	208	34	
9:30 PM	162	32	
9:45 PM	145	27	
10:00 PM	132	23	
10:15 PM	102	20	
10:30 PM	82	20	
10:45 PM	66	17	
11:00 PM	57	12	

WARRANT PA-1, ADT VOLUME WARRANT

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
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Estimated ADT of Major Street (Both Approaches)*: 8202 vpd
**If applicable, attach all supporting calculations and documentation.*

Estimated ADT of Higher-Volume Minor Street (One Direction Only)*: 4331 vpd
**If applicable, attach all supporting calculations and documentation.*

Condition A - ADT Volume Warrant					
Number of lanes for moving traffic on each approach		Estimated ADT*			
		Major Street (Both Approaches)		Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	100%	70%	100%	70%
1	1	10,000	7,000	3,000	2,100
2 or More	1	12,000	8,400	3,000	2,100
2 or More	2 or More	12,000	8,400	4,000	2,800
1	2 or More	10,000	7,000	4,000	2,800

Condition B - ADT Volume Warrant					
Number of lanes for moving traffic on each approach		Estimated ADT*			
		Major Street (Both Approaches)		Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	100%	70%	100%	70%
1	1	15,000	10,500	1,500	1,050
2 or More	1	18,000	12,600	1,500	1,050
2 or More	2 or More	18,000	12,600	2,000	1,400
1	2 or More	15,000	10,500	2,000	1,400

Condition A Met?	No
Condition B Met?	No

STUDY AND ANALYSIS INFORMATION

Municipality:
 County:
 PennDOT Engineering District:

Analysis Date:
 Conducted By:
 Agency/Company Name:

Analysis Information

Data Collection Date:
 Day of the Week:

Is the intersection in a built-up area of an isolated community of <10,000 population?

Major Street Information

Major Street Name and Route Number:
 Major Street Approach #1 Direction:
 Major Street Approach #2 Direction:

Number of Lanes for Moving Traffic on Each Major Street Approach: LANE(S)
 Speed Limit or 85th Percentile Speed on the Major Street: MPH

Minor Street Information

Minor Street Name and Route Number:
 Minor Street Approach #1 Direction:
 Minor Street Approach #2 Direction:

Number of Lanes for Moving Traffic on Each Minor Street Approach: LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	Yes	No
Warrant 2, Four-Hour Vehicular Volume	Yes	No
Warrant 3, Peak Hour	Yes	No
Warrant 4, Pedestrian Volume	No	N/A
Warrant 5, School Crossing	No	N/A
Warrant 6, Coordinated Signal System	No	N/A
Warrant 7, Crash Experience	No	N/A
Warrant 8, Roadway Network	No	N/A
Warrant 9, Intersection Near a Grade Crossing	No	N/A
Warrant PA-1, ADT Volume Warrant	Yes	No
Warrant PA-2, Midblock and Trail Crossings	No	N/A

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (W-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 AM	12:14 AM	5	6	11	2	
12:15 AM	12:29 AM	4	6	10	1	
12:30 AM	12:44 AM	6	2	8	2	
12:45 AM	12:59 AM	2	0	2	1	
1:00 AM	1:14 AM	0	1	1	1	
1:15 AM	1:29 AM	1	1	2	1	
1:30 AM	1:44 AM	2	1	3	0	
1:45 AM	1:59 AM	1	1	2	0	
2:00 AM	2:14 AM	1	1	2	0	
2:15 AM	2:29 AM	2	4	6	1	
2:30 AM	2:44 AM	1	1	2	1	
2:45 AM	2:59 AM	1	2	3	0	
3:00 AM	3:14 AM	1	0	1	0	
3:15 AM	3:29 AM	2	4	6	2	
3:30 AM	3:44 AM	5	1	6	0	
3:45 AM	3:59 AM	0	1	1	2	
4:00 AM	4:14 AM	4	1	5	1	
4:15 AM	4:29 AM	10	7	17	2	
4:30 AM	4:44 AM	17	9	26	5	
4:45 AM	4:59 AM	19	12	31	9	
5:00 AM	5:14 AM	16	9	25	7	
5:15 AM	5:29 AM	29	10	39	2	
5:30 AM	5:44 AM	36	16	52	4	
5:45 AM	5:59 AM	38	12	50	7	
6:00 AM	6:14 AM	42	20	62	12	
6:15 AM	6:29 AM	46	21	67	7	
6:30 AM	6:44 AM	69	46	115	11	
6:45 AM	6:59 AM	105	63	168	15	
7:00 AM	7:14 AM	74	57	131	35	
7:15 AM	7:29 AM	106	99	205	31	
7:30 AM	7:44 AM	117	102	219	29	
7:45 AM	7:59 AM	128	102	230	26	
8:00 AM	8:14 AM	102	102	204	26	
8:15 AM	8:29 AM	67	62	129	24	
8:30 AM	8:44 AM	58	64	122	16	
8:45 AM	8:59 AM	68	43	111	15	
9:00 AM	9:14 AM	50	56	106	31	
9:15 AM	9:29 AM	55	42	97	22	
9:30 AM	9:44 AM	40	41	81	12	
9:45 AM	9:59 AM	53	55	108	16	
10:00 AM	10:14 AM	56	45	101	20	
10:15 AM	10:29 AM	55	43	98	22	
10:30 AM	10:44 AM	53	46	99	15	
10:45 AM	10:59 AM	71	32	103	20	
11:00 AM	11:14 AM	59	40	99	33	
11:15 AM	11:29 AM	59	46	105	21	
11:30 AM	11:44 AM	59	41	100	21	
11:45 AM	11:59 AM	50	67	117	22	

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (W-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 PM	12:14 PM	68	55	123	24	
12:15 PM	12:29 PM	50	59	109	26	
12:30 PM	12:44 PM	55	53	108	20	
12:45 PM	12:59 PM	63	71	134	32	
1:00 PM	1:14 PM	58	41	99	30	
1:15 PM	1:29 PM	62	48	110	36	
1:30 PM	1:44 PM	73	58	131	36	
1:45 PM	1:59 PM	66	57	123	40	
2:00 PM	2:14 PM	46	64	110	33	
2:15 PM	2:29 PM	69	61	130	38	
2:30 PM	2:44 PM	67	67	134	32	
2:45 PM	2:59 PM	86	59	145	46	
3:00 PM	3:14 PM	82	59	141	58	
3:15 PM	3:29 PM	103	71	174	45	
3:30 PM	3:44 PM	109	66	175	32	
3:45 PM	3:59 PM	105	97	202	47	
4:00 PM	4:14 PM	109	76	185	41	
4:15 PM	4:29 PM	92	82	174	48	
4:30 PM	4:44 PM	88	93	181	42	
4:45 PM	4:59 PM	153	99	252	81	
5:00 PM	5:14 PM	161	95	256	79	
5:15 PM	5:29 PM	168	100	268	65	
5:30 PM	5:44 PM	135	69	204	70	
5:45 PM	5:59 PM	92	66	158	41	
6:00 PM	6:14 PM	84	58	142	45	
6:15 PM	6:29 PM	64	50	114	47	
6:30 PM	6:44 PM	58	50	108	33	
6:45 PM	6:59 PM	58	37	95	35	
7:00 PM	7:14 PM	47	36	83	29	
7:15 PM	7:29 PM	51	51	102	25	
7:30 PM	7:44 PM	47	47	94	25	
7:45 PM	7:59 PM	27	37	64	24	
8:00 PM	8:14 PM	43	43	86	30	
8:15 PM	8:29 PM	38	32	70	20	
8:30 PM	8:44 PM	29	41	70	24	
8:45 PM	8:59 PM	35	27	62	21	
9:00 PM	9:14 PM	36	40	76	21	
9:15 PM	9:29 PM	52	30	82	10	
9:30 PM	9:44 PM	21	22	43	11	
9:45 PM	9:59 PM	17	24	41	2	
10:00 PM	10:14 PM	25	17	42	2	
10:15 PM	10:29 PM	24	12	36	16	
10:30 PM	10:44 PM	17	9	26	9	
10:45 PM	10:59 PM	17	11	28	9	
11:00 PM	11:14 PM	10	2	12	12	
11:15 PM	11:29 PM	7	9	16	2	
11:30 PM	11:44 PM	4	6	10	5	
11:45 PM	11:59 PM	7	12	19	0	

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (N-Bound)	Major Street Approach #2 (S-Bound)	Major Street Combined	Minor Street Approach #1 (W-Bound)	Minor Street Approach #2 (N/A)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
Approach Totals:		4823	3812	8635	2052	0

MUTCD WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Combination of Conditions A and B Necessary?*: No

**Only applicable for Warrant 1 if after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems. See Section 4C.02 of the 2009 MUTCD for application.*

Condition A - Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	500	400	350	280	150	120	105	84
2 or More	1	600	480	420	336	150	120	105	84
2 or More	2 or More	600	480	420	336	200	160	140	112
1	2 or More	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor street approach (one direction only)			
Major Street	Minor Street	100%	80%	70%	56%	100%	80%	70%	56%
1	1	750	600	525	420	75	60	53	42
2 or More	1	900	720	630	504	75	60	53	42
2 or More	2 or More	900	720	630	504	100	80	70	56
1	2 or More	750	600	525	420	100	80	70	56

Condition A Evaluation

Number of Unique Hours Met: 4 Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 3 Condition B Satisfied? No

Combination of Condition A and Condition B Evaluation

Number of Unique Hours Met for Condition A: N/A

Number of Unique Hours Met for Condition B: N/A

Combination of Condition A and Condition B Satisfied? N/A

MUTCD WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

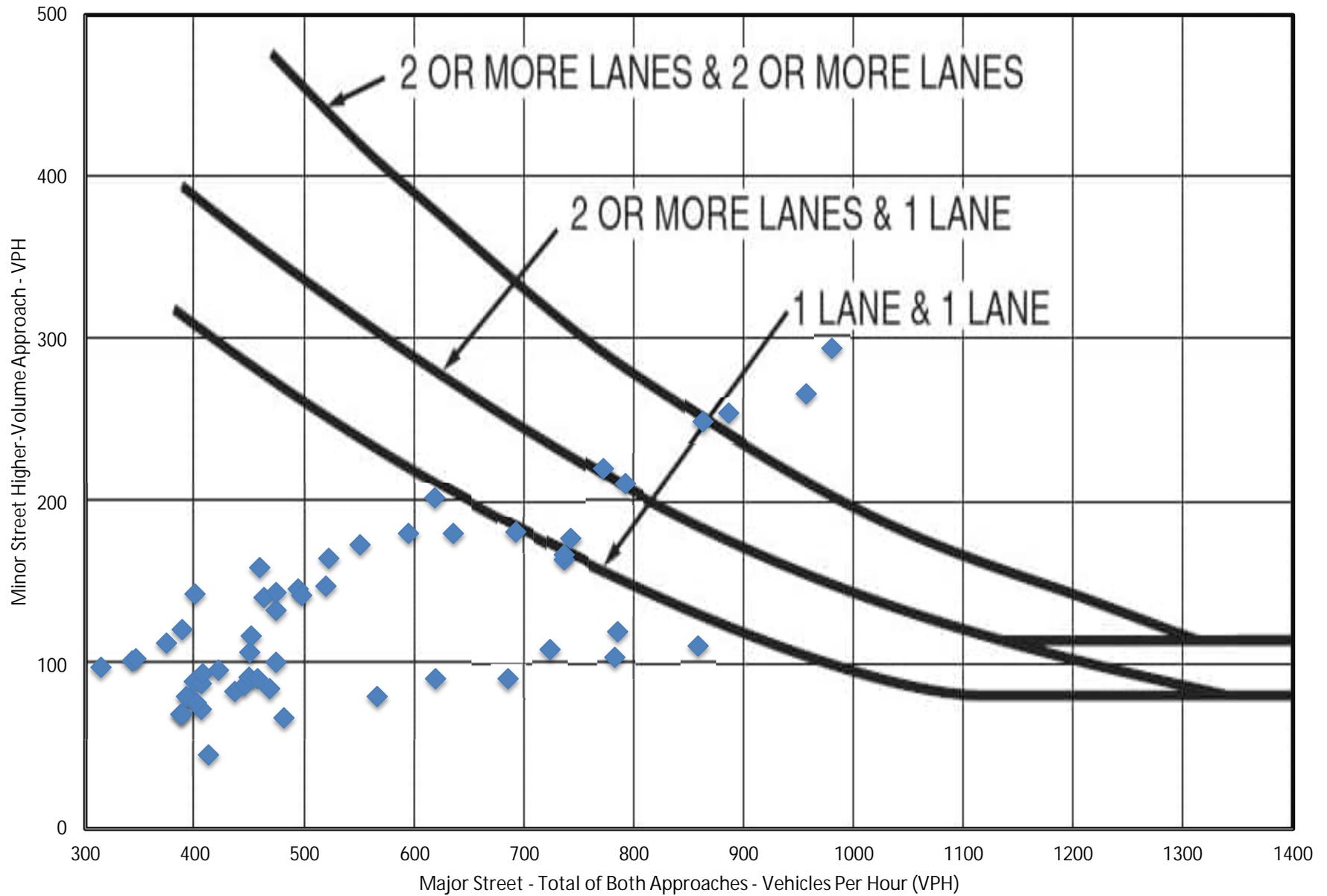
Total Number of Unique Hours Met On Figure 4C-1
2

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?
No

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	31	6	
12:15 AM	21	5	
12:30 AM	13	5	
12:45 AM	8	3	
1:00 AM	8	2	
1:15 AM	9	1	
1:30 AM	13	1	
1:45 AM	12	2	
2:00 AM	13	2	
2:15 AM	12	2	
2:30 AM	12	3	
2:45 AM	16	2	
3:00 AM	14	4	
3:15 AM	18	5	
3:30 AM	29	5	
3:45 AM	49	10	
4:00 AM	79	17	
4:15 AM	99	23	
4:30 AM	121	23	
4:45 AM	147	22	
5:00 AM	166	20	
5:15 AM	203	25	
5:30 AM	231	30	
5:45 AM	294	37	
6:00 AM	412	45	
6:15 AM	481	68	
6:30 AM	619	92	
6:45 AM	723	110	
7:00 AM	785	121	
7:15 AM	858	112	
7:30 AM	782	105	
7:45 AM	685	92	
8:00 AM	566	81	
8:15 AM	468	86	
8:30 AM	436	84	
8:45 AM	395	80	
9:00 AM	392	81	
9:15 AM	387	70	
9:30 AM	388	70	
9:45 AM	406	73	
10:00 AM	401	77	
10:15 AM	399	90	
10:30 AM	406	89	
10:45 AM	407	95	
11:00 AM	421	97	
11:15 AM	445	88	
11:30 AM	449	93	
11:45 AM	457	92	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 PM	474	102	
12:15 PM	450	108	
12:30 PM	451	118	
12:45 PM	474	134	
1:00 PM	463	142	
1:15 PM	474	145	
1:30 PM	494	147	
1:45 PM	497	143	
2:00 PM	519	149	
2:15 PM	550	174	
2:30 PM	594	181	
2:45 PM	635	181	
3:00 PM	692	182	
3:15 PM	736	165	
3:30 PM	736	168	
3:45 PM	742	178	Met
4:00 PM	792	212	Met
4:15 PM	863	250	Met
4:30 PM	957	267	Met
4:45 PM	980	295	Met
5:00 PM	886	255	Met
5:15 PM	772	221	Met
5:30 PM	618	203	
5:45 PM	522	166	
6:00 PM	459	160	
6:15 PM	400	144	
6:30 PM	388	122	
6:45 PM	374	114	
7:00 PM	343	103	
7:15 PM	346	104	
7:30 PM	314	99	
7:45 PM	290	98	
8:00 PM	288	95	
8:15 PM	278	86	
8:30 PM	290	76	
8:45 PM	263	63	
9:00 PM	242	44	
9:15 PM	208	25	
9:30 PM	162	31	
9:45 PM	145	29	
10:00 PM	132	36	
10:15 PM	102	46	
10:30 PM	82	32	
10:45 PM	66	28	
11:00 PM	57	19	

MUTCD Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?	No
---	----

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*	
Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	No
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	N/A
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	Yes
<i>*If applicable, attach all supporting calculations and documentation.</i>	

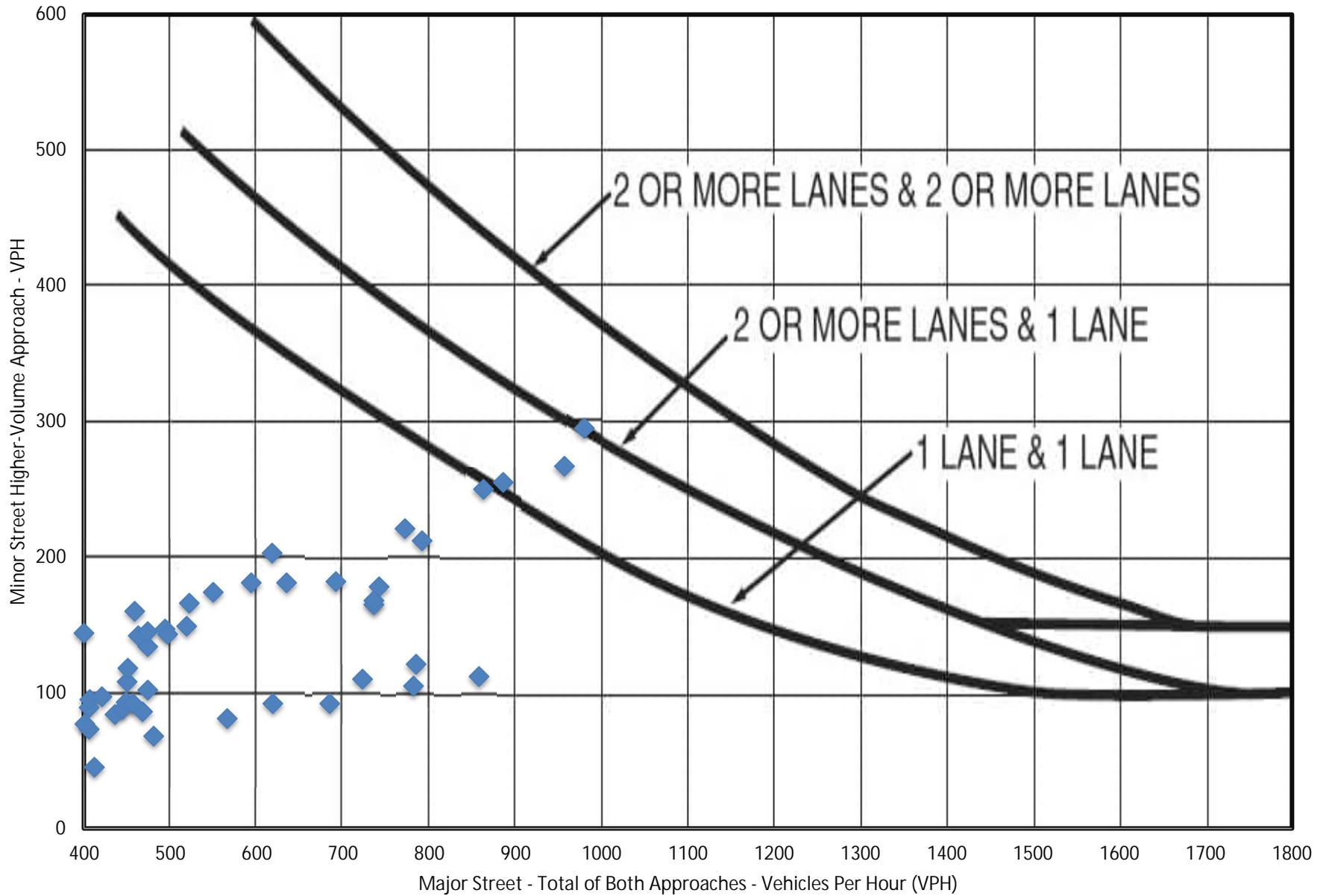
Total Number of Unique Hours Met On Figure 4C-3
1

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	31	6	
12:15 AM	21	5	
12:30 AM	13	5	
12:45 AM	8	3	
1:00 AM	8	2	
1:15 AM	9	1	
1:30 AM	13	1	
1:45 AM	12	2	
2:00 AM	13	2	
2:15 AM	12	2	
2:30 AM	12	3	
2:45 AM	16	2	
3:00 AM	14	4	
3:15 AM	18	5	
3:30 AM	29	5	
3:45 AM	49	10	
4:00 AM	79	17	
4:15 AM	99	23	
4:30 AM	121	23	
4:45 AM	147	22	
5:00 AM	166	20	
5:15 AM	203	25	
5:30 AM	231	30	
5:45 AM	294	37	
6:00 AM	412	45	
6:15 AM	481	68	
6:30 AM	619	92	
6:45 AM	723	110	
7:00 AM	785	121	
7:15 AM	858	112	
7:30 AM	782	105	
7:45 AM	685	92	
8:00 AM	566	81	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:15 AM	468	86	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:30 AM	436	84	
8:45 AM	395	80	
9:00 AM	392	81	
9:15 AM	387	70	
9:30 AM	388	70	
9:45 AM	406	73	
10:00 AM	401	77	
10:15 AM	399	90	
10:30 AM	406	89	
10:45 AM	407	95	
11:00 AM	421	97	
11:15 AM	445	88	
11:30 AM	449	93	
11:45 AM	457	92	
12:00 PM	474	102	
12:15 PM	450	108	
12:30 PM	451	118	
12:45 PM	474	134	
1:00 PM	463	142	
1:15 PM	474	145	
1:30 PM	494	147	
1:45 PM	497	143	
2:00 PM	519	149	
2:15 PM	550	174	
2:30 PM	594	181	
2:45 PM	635	181	
3:00 PM	692	182	
3:15 PM	736	165	
3:30 PM	736	168	
3:45 PM	742	178	
4:00 PM	792	212	
4:15 PM	863	250	
4:30 PM	957	267	Met
4:45 PM	980	295	Met
5:00 PM	886	255	Met
5:15 PM	772	221	
5:30 PM	618	203	
5:45 PM	522	166	
6:00 PM	459	160	
6:15 PM	400	144	
6:30 PM	388	122	
6:45 PM	374	114	
7:00 PM	343	103	
7:15 PM	346	104	
7:30 PM	314	99	
7:45 PM	290	98	
8:00 PM	288	95	
8:15 PM	278	86	
8:30 PM	290	76	
8:45 PM	263	63	
9:00 PM	242	44	
9:15 PM	208	25	
9:30 PM	162	31	
9:45 PM	145	29	
10:00 PM	132	36	
10:15 PM	102	46	
10:30 PM	82	32	
10:45 PM	66	28	
11:00 PM	57	19	

MUTCD Figure 4C-3. Warrant 3, Peak Hour



WARRANT PA-1, ADT VOLUME WARRANT

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	No
---	----

Estimated ADT of Major Street (Both Approaches)*: 8202 vpd
**If applicable, attach all supporting calculations and documentation.*

Estimated ADT of Higher-Volume Minor Street (One Direction Only)*: 2322 vpd
**If applicable, attach all supporting calculations and documentation.*

Condition A - ADT Volume Warrant					
Number of lanes for moving traffic on each approach		Estimated ADT*			
		Major Street (Both Approaches)		Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	100%	70%	100%	70%
1	1	10,000	7,000	3,000	2,100
2 or More	1	12,000	8,400	3,000	2,100
2 or More	2 or More	12,000	8,400	4,000	2,800
1	2 or More	10,000	7,000	4,000	2,800

Condition B - ADT Volume Warrant					
Number of lanes for moving traffic on each approach		Estimated ADT*			
		Major Street (Both Approaches)		Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	100%	70%	100%	70%
1	1	15,000	10,500	1,500	1,050
2 or More	1	18,000	12,600	1,500	1,050
2 or More	2 or More	18,000	12,600	2,000	1,400
1	2 or More	15,000	10,500	2,000	1,400

Condition A Met?	No
Condition B Met?	No

Appendix E
Turn Lane Warrants

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 NB Ramps, SR 3033 NBL Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Signalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	151	5.0%	163	Advancing Volume: <input type="text" value="420"/>
	Through	-	232	7.0%	257	Opposing Volume: <input type="text" value="453"/>
	Right	No	0	0.0%	N/A	Left Turn Volume: <input type="text" value="163"/>
Opposing	Left	No	0	0.0%	N/A	
	Through	-	375	5.0%	404	
	Right	Yes	46	4.0%	49	% Left Turns in Advancing Volume: <input type="text" value="38.81%"/>

Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Right Turn Volume: <input type="text" value="N/A"/>
	Right	-			N/A	

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="Figure 2"/>	Applicable Warrant Figure: <input type="text" value="N/A"/>
Warrant Met?: <input type="text" value="Yes"/>	Warrant Met?: <input type="text" value="N/A"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Signalized"/>	
Design Hour Volume of Turning Lane: <input type="text" value="163"/>	
Cycles Per Hour (Assumed): <input type="text" value="Known"/>	
Cycles Per Hour (If Known): <input type="text" value="40"/>	Average # of Vehicles/Cycle: <input type="text" value="4.0"/>

PennDOT Publication 46, Exhibit 11-6

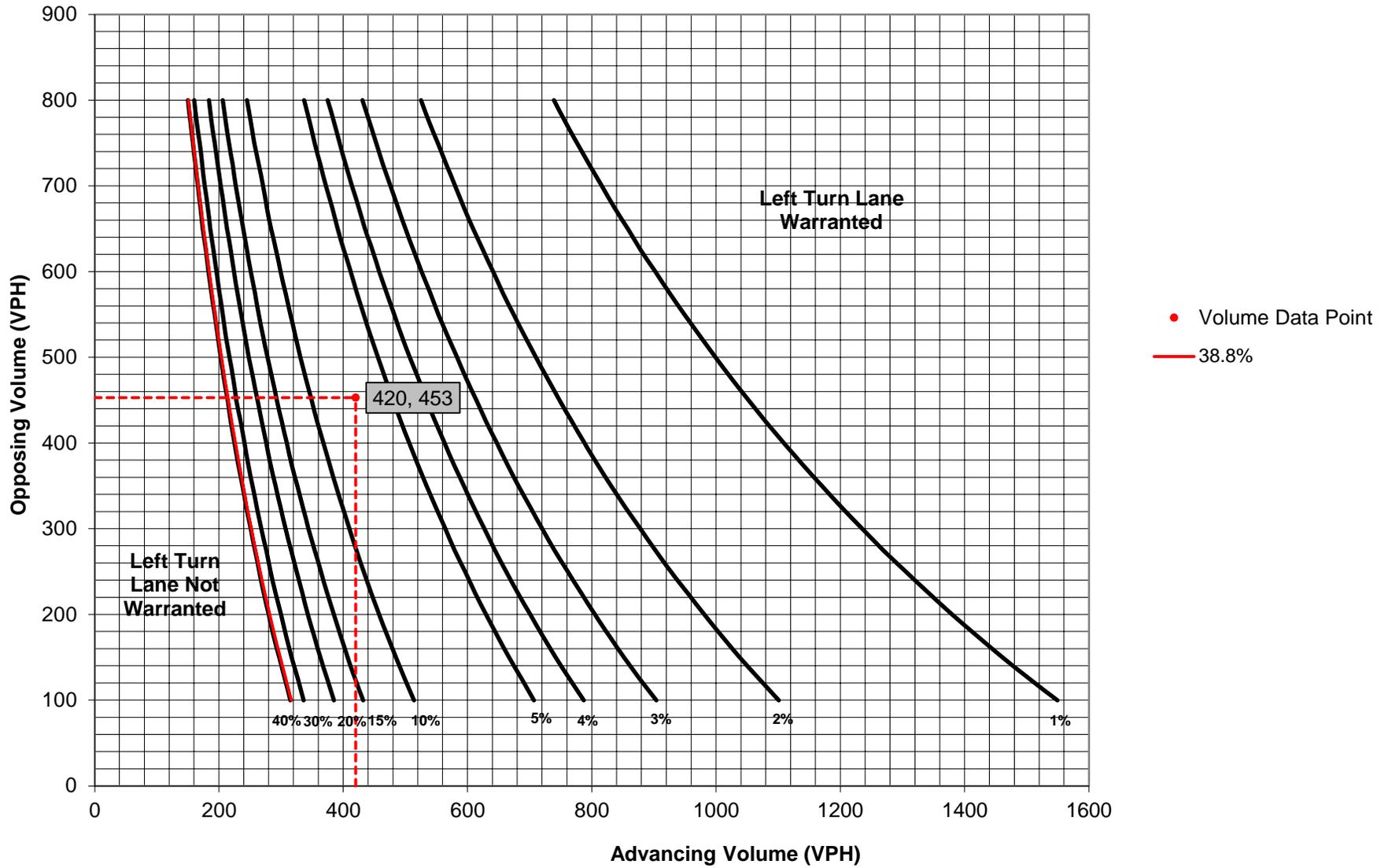
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Left Turn Lane Storage Length, Condition A:	<input type="text" value="N/A"/>	Feet
Condition B:	<input type="text" value="75"/>	Feet
Condition C:	<input type="text" value="236"/>	Feet
Required Left Turn Lane Storage Length:	<input type="text" value="250"/>	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 2. Warrant for left turn lanes on two-lane highways
(40 mph speed, unsignalized and signalized intersections)**
(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 NB Ramps, SR 3033 NBL Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Signalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	199	2.0%	205	Advancing Volume: <input type="text" value="802"/>
	Through	-	579	2.0%	597	Opposing Volume: <input type="text" value="417"/>
	Right	No	0	0.0%	N/A	Left Turn Volume: <input type="text" value="205"/>
Opposing	Left	No	0	0.0%	N/A	
	Through	-	360	4.0%	382	
	Right	Yes	35	0.0%	35	% Left Turns in Advancing Volume: <input type="text" value="25.56%"/>

Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Right Turn Volume: <input type="text" value="N/A"/>
	Right	-			N/A	

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="Figure 2"/>	Applicable Warrant Figure: <input type="text" value="N/A"/>
Warrant Met?: <input type="text" value="Yes"/>	Warrant Met?: <input type="text" value="N/A"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Signalized"/>	
Design Hour Volume of Turning Lane: <input type="text" value="205"/>	
Cycles Per Hour (Assumed): <input type="text" value="Known"/>	
Cycles Per Hour (If Known): <input type="text" value="48"/>	Average # of Vehicles/Cycle: <input type="text" value="4.0"/>

PennDOT Publication 46, Exhibit 11-6

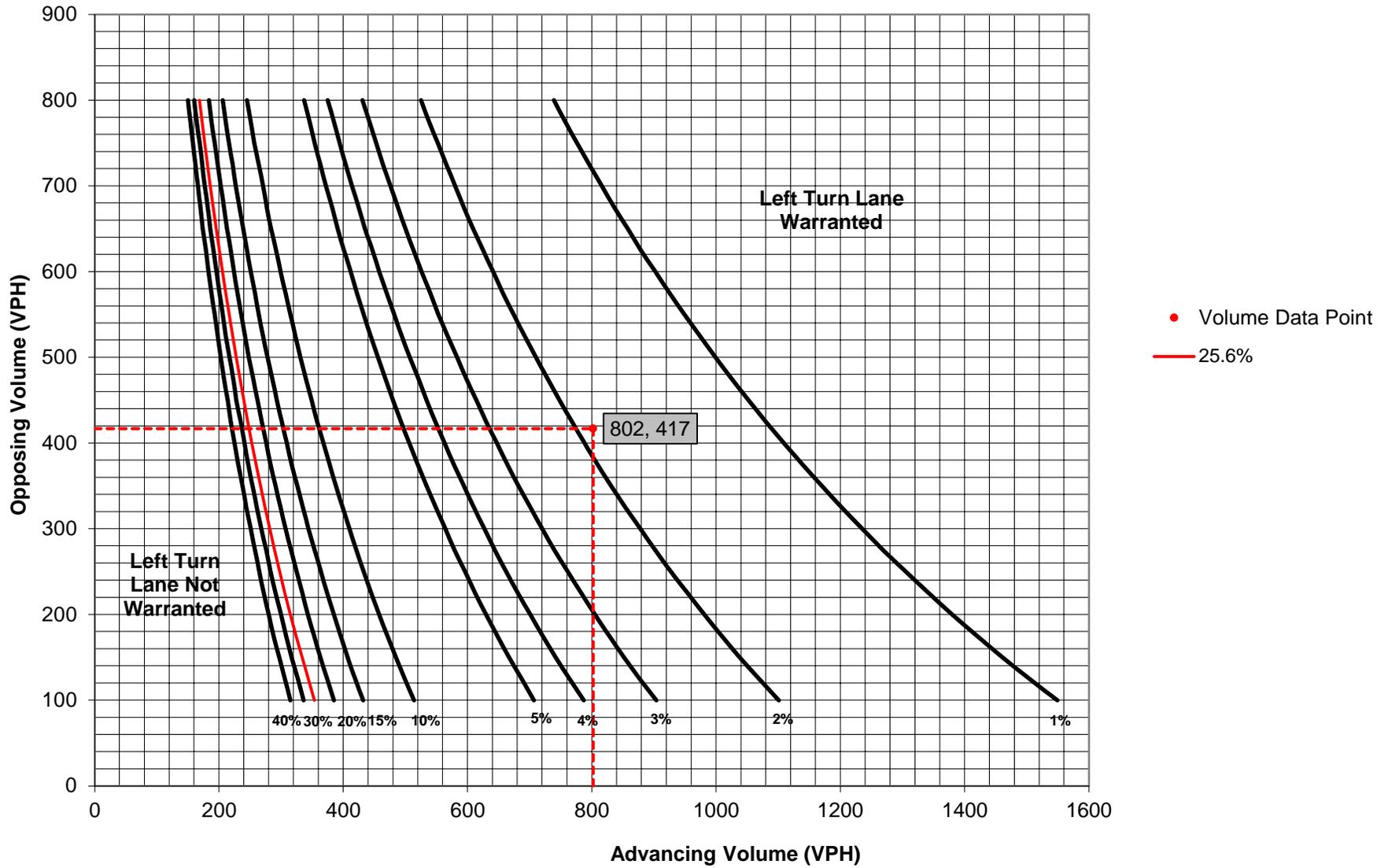
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Left Turn Lane Storage Length, Condition A:	<input type="text" value="N/A"/>	Feet
Condition B:	<input type="text" value="75"/>	Feet
Condition C:	<input type="text" value="236"/>	Feet
Required Left Turn Lane Storage Length:	<input type="text" value="250"/>	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 2. Warrant for left turn lanes on two-lane highways
(40 mph speed, unsignalized and signalized intersections)**
(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 SB Ramps, SR 3033 SBL Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Signalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	79	3.0%	83	Advancing Volume: <input type="text" value="377"/>
	Through	-	269	6.0%	294	Opposing Volume: <input type="text" value="464"/>
	Right	No	0	0.0%	N/A	Left Turn Volume: <input type="text" value="83"/>
Opposing	Left	No	0	0.0%	N/A	
	Through	-	352	4.0%	374	
	Right	Yes	83	5.0%	90	% Left Turns in Advancing Volume: <input type="text" value="22.02%"/>

Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Right Turn Volume: <input type="text" value="N/A"/>
	Right	-			N/A	

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="Figure 2"/>	Applicable Warrant Figure: <input type="text" value="N/A"/>
Warrant Met?: <input type="text" value="Yes"/>	Warrant Met?: <input type="text" value="N/A"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Signalized"/>	
Design Hour Volume of Turning Lane: <input type="text" value="83"/>	
Cycles Per Hour (Assumed): <input type="text" value="Known"/>	
Cycles Per Hour (If Known): <input type="text" value="60"/>	Average # of Vehicles/Cycle: <input type="text" value="1.0"/>

PennDOT Publication 46, Exhibit 11-6

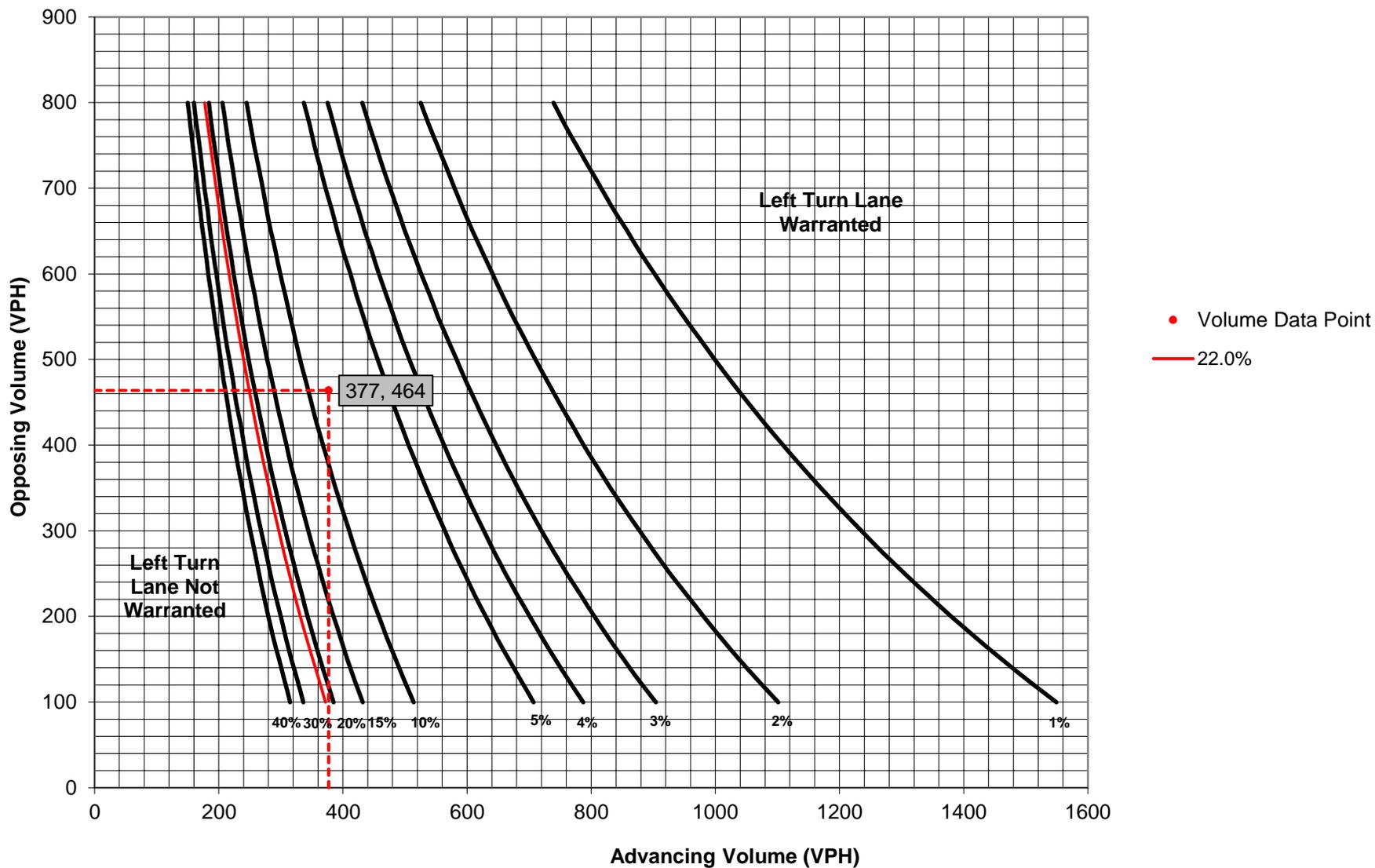
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Left Turn Lane Storage Length, Condition A:	<input type="text" value="N/A"/>	Feet
Condition B:	<input type="text" value="75"/>	Feet
Condition C:	<input type="text" value="136"/>	Feet
Required Left Turn Lane Storage Length:	<input type="text" value="150"/>	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 2. Warrant for left turn lanes on two-lane highways
(40 mph speed, unsignalized and signalized intersections)**
(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
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PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 SB Ramps, SR 3033 SBL Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Signalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	130	1.0%	132	Advancing Volume: <input type="text" value="364"/>
	Through	-	218	4.0%	232	Opposing Volume: <input type="text" value="696"/>
	Right	No	0	0.0%	N/A	Left Turn Volume: <input type="text" value="132"/>
Opposing	Left	No	0	0.0%	N/A	
	Through	-	376	1.0%	382	
	Right	Yes	304	2.0%	314	% Left Turns in Advancing Volume: <input type="text" value="36.26%"/>
Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Right Turn Volume: <input type="text" value="N/A"/>
	Right	-			N/A	

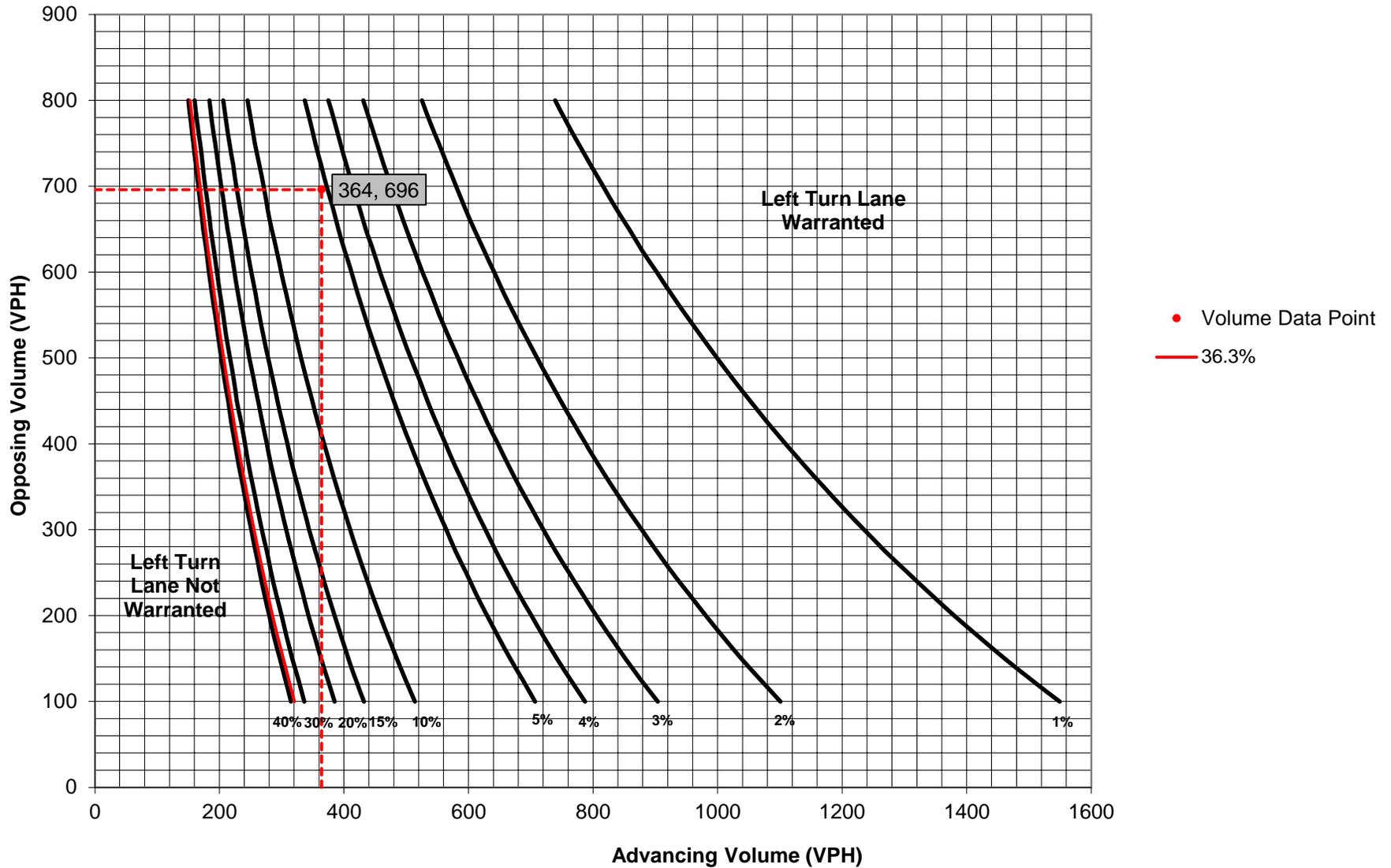
TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="Figure 2"/>	Applicable Warrant Figure: <input type="text" value="N/A"/>
Warrant Met?: <input type="text" value="Yes"/>	Warrant Met?: <input type="text" value="N/A"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Signalized"/>						
Design Hour Volume of Turning Lane: <input type="text" value="132"/>						
Cycles Per Hour (Assumed): <input type="text" value="Known"/>						
Cycles Per Hour (If Known): <input type="text" value="45"/>	Average # of Vehicles/Cycle: <input type="text" value="3.0"/>					
PennDOT Publication 46, Exhibit 11-6						
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B
Left Turn Lane Storage Length, Condition A: <input type="text" value="N/A"/> Feet						
Condition B: <input type="text" value="75"/> Feet						
Condition C: <input type="text" value="211"/> Feet						
Required Left Turn Lane Storage Length: <input type="text" value="225"/> Feet						
Additional Findings: <input type="text" value="N/A"/>						
Additional Comments / Justifications: <input style="height: 40px;" type="text"/>						

**Figure 2. Warrant for left turn lanes on two-lane highways
(40 mph speed, unsignalized and signalized intersections)**
(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
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PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 NB Ramps, SR 3033 NBL Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	151	5.0%	163	Advancing Volume: <input type="text" value="420"/>
	Through	-	232	7.0%	257	Opposing Volume: <input type="text" value="453"/>
	Right	No	0	0.0%	N/A	Left Turn Volume: <input type="text" value="163"/>
Opposing	Left	No	0	0.0%	N/A	
	Through	-	375	5.0%	404	
	Right	Yes	46	4.0%	49	% Left Turns in Advancing Volume: <input type="text" value="38.81%"/>

Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Right Turn Volume: <input type="text" value="N/A"/>
	Right	-			N/A	

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="Figure 2"/>	Applicable Warrant Figure: <input type="text" value="N/A"/>
Warrant Met?: <input type="text" value="Yes"/>	Warrant Met?: <input type="text" value="N/A"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Unsignalized"/>	
Design Hour Volume of Turning Lane: <input type="text" value="163"/>	
Cycles Per Hour (Assumed): <input type="text" value="60"/>	
Cycles Per Hour (If Known): <input type="text"/>	Average # of Vehicles/Cycle: <input type="text" value="3.0"/>

PennDOT Publication 46, Exhibit 11-6

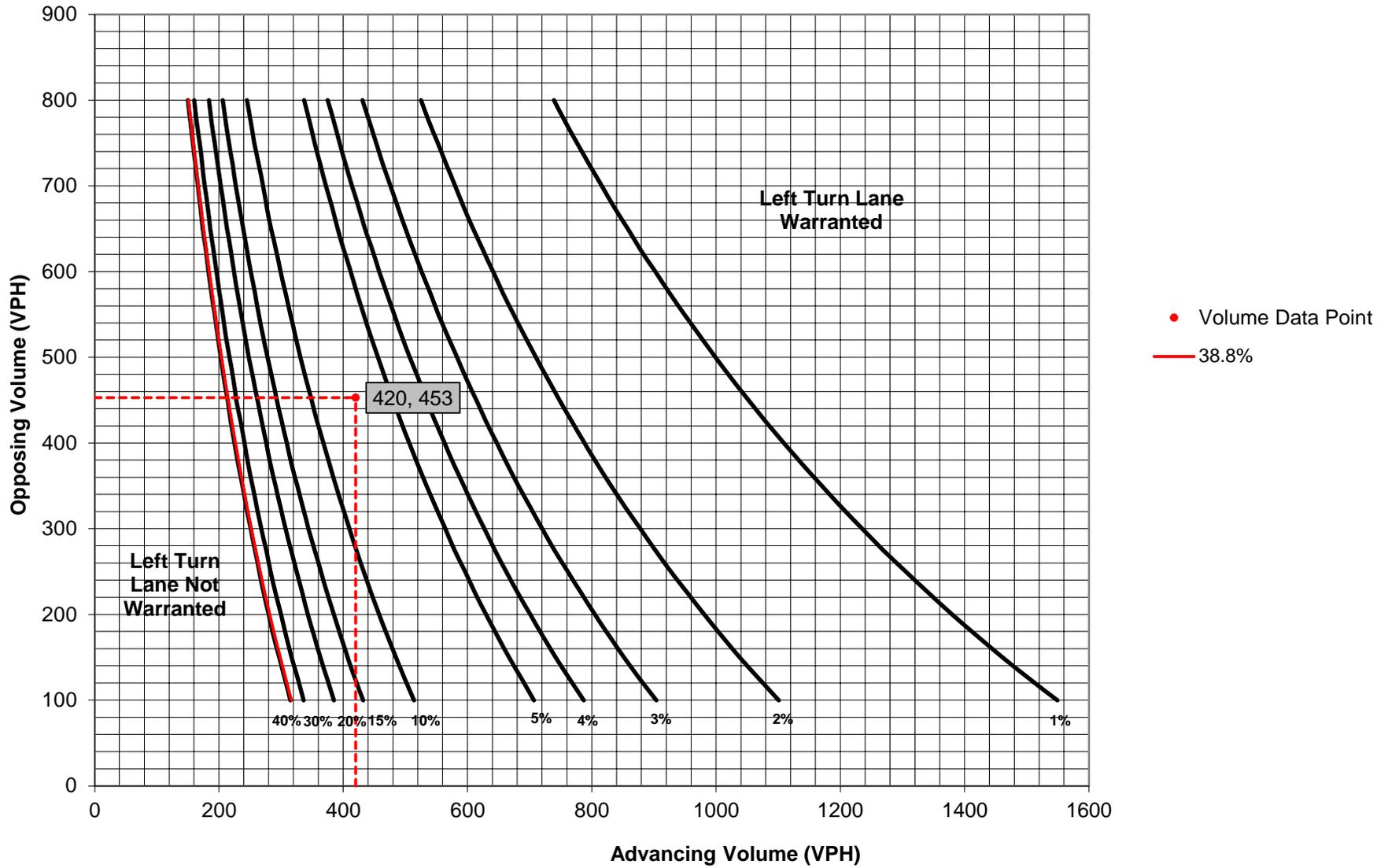
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Left Turn Lane Storage Length, Condition A:	<input type="text" value="N/A"/>	Feet
Condition B:	<input type="text" value="N/A"/>	Feet
Condition C:	<input type="text" value="211"/>	Feet
Required Left Turn Lane Storage Length:	<input type="text" value="225"/>	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 2. Warrant for left turn lanes on two-lane highways
(40 mph speed, unsignalized and signalized intersections)**
(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 NB Ramps, SR 3033 NBL Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	199	2.0%	205	Advancing Volume: <input type="text" value="802"/>
	Through	-	579	2.0%	597	Opposing Volume: <input type="text" value="417"/>
	Right	No	0	0.0%	N/A	Left Turn Volume: <input type="text" value="205"/>
Opposing	Left	No	0	0.0%	N/A	
	Through	-	360	4.0%	382	
	Right	Yes	35	0.0%	35	% Left Turns in Advancing Volume: <input type="text" value="25.56%"/>

Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Right Turn Volume: <input type="text" value="N/A"/>
	Right	-			N/A	

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="Figure 2"/>	Applicable Warrant Figure: <input type="text" value="N/A"/>
Warrant Met?: <input type="text" value="Yes"/>	Warrant Met?: <input type="text" value="N/A"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Unsignalized"/>	
Design Hour Volume of Turning Lane: <input type="text" value="205"/>	
Cycles Per Hour (Assumed): <input type="text" value="60"/>	
Cycles Per Hour (If Known): <input type="text"/>	Average # of Vehicles/Cycle: <input type="text" value="3.0"/>

PennDOT Publication 46, Exhibit 11-6

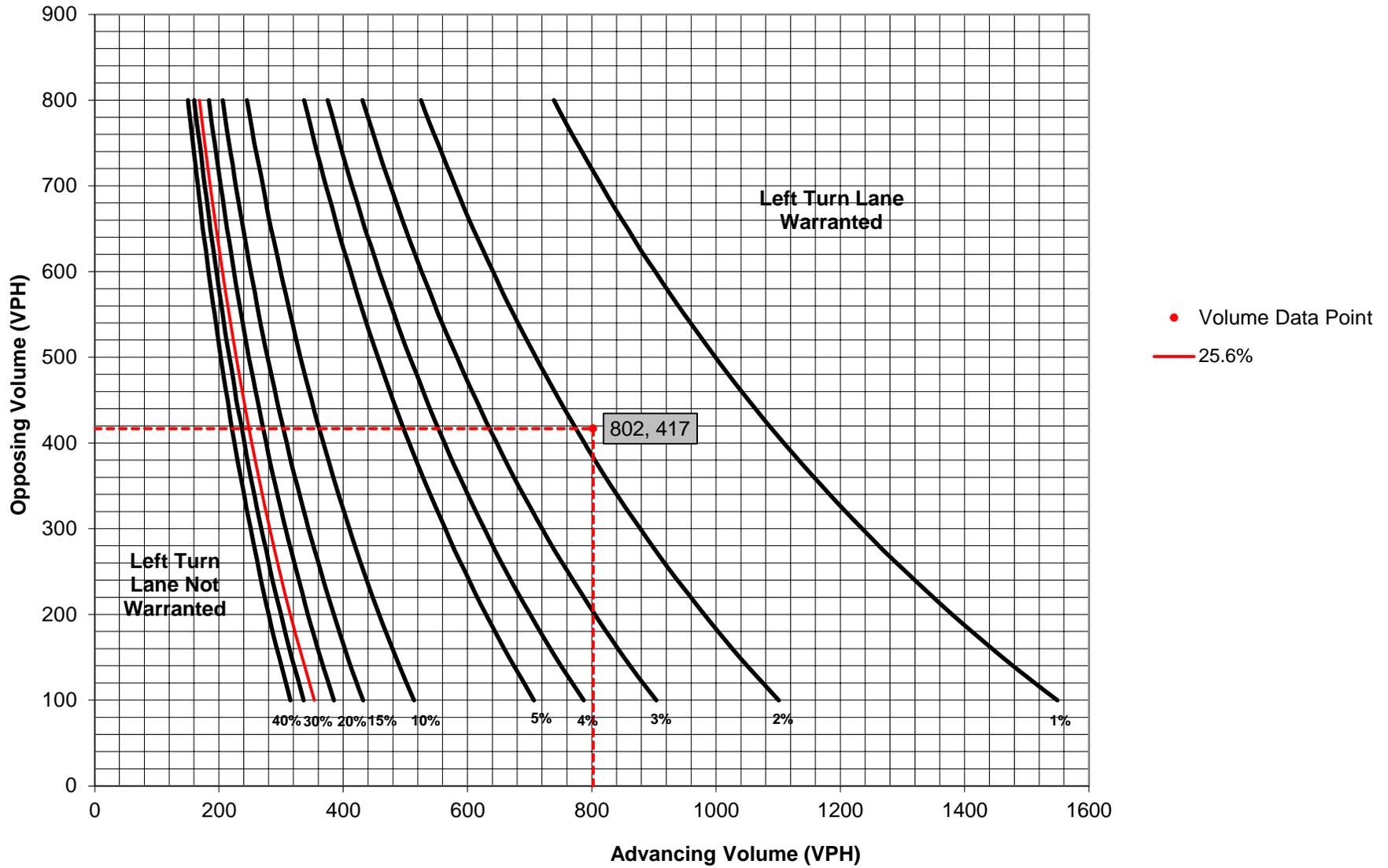
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Left Turn Lane Storage Length, Condition A:	<input type="text" value="N/A"/>	Feet
Condition B:	<input type="text" value="N/A"/>	Feet
Condition C:	<input type="text" value="211"/>	Feet
Required Left Turn Lane Storage Length:	<input type="text" value="225"/>	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 2. Warrant for left turn lanes on two-lane highways
(40 mph speed, unsignalized and signalized intersections)**
(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 SB Ramps, SR 3033 SBL Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	79	3.0%	83	Advancing Volume: <input type="text" value="377"/>
	Through	-	269	6.0%	294	Opposing Volume: <input type="text" value="464"/>
	Right	No	0	0.0%	N/A	Left Turn Volume: <input type="text" value="83"/>
Opposing	Left	No	0	0.0%	N/A	
	Through	-	352	4.0%	374	
	Right	Yes	83	5.0%	90	% Left Turns in Advancing Volume: <input type="text" value="22.02%"/>

Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Right Turn Volume: <input type="text" value="N/A"/>
	Right	-			N/A	

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="Figure 2"/>	Applicable Warrant Figure: <input type="text" value="N/A"/>
Warrant Met?: <input type="text" value="Yes"/>	Warrant Met?: <input type="text" value="N/A"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control:	<input type="text" value="Unsignalized"/>
Design Hour Volume of Turning Lane:	<input type="text" value="83"/>
Cycles Per Hour (Assumed):	<input type="text" value="60"/>
Cycles Per Hour (If Known):	<input type="text" value=""/>
Average # of Vehicles/Cycle:	<input type="text" value="1.0"/>

PennDOT Publication 46, Exhibit 11-6

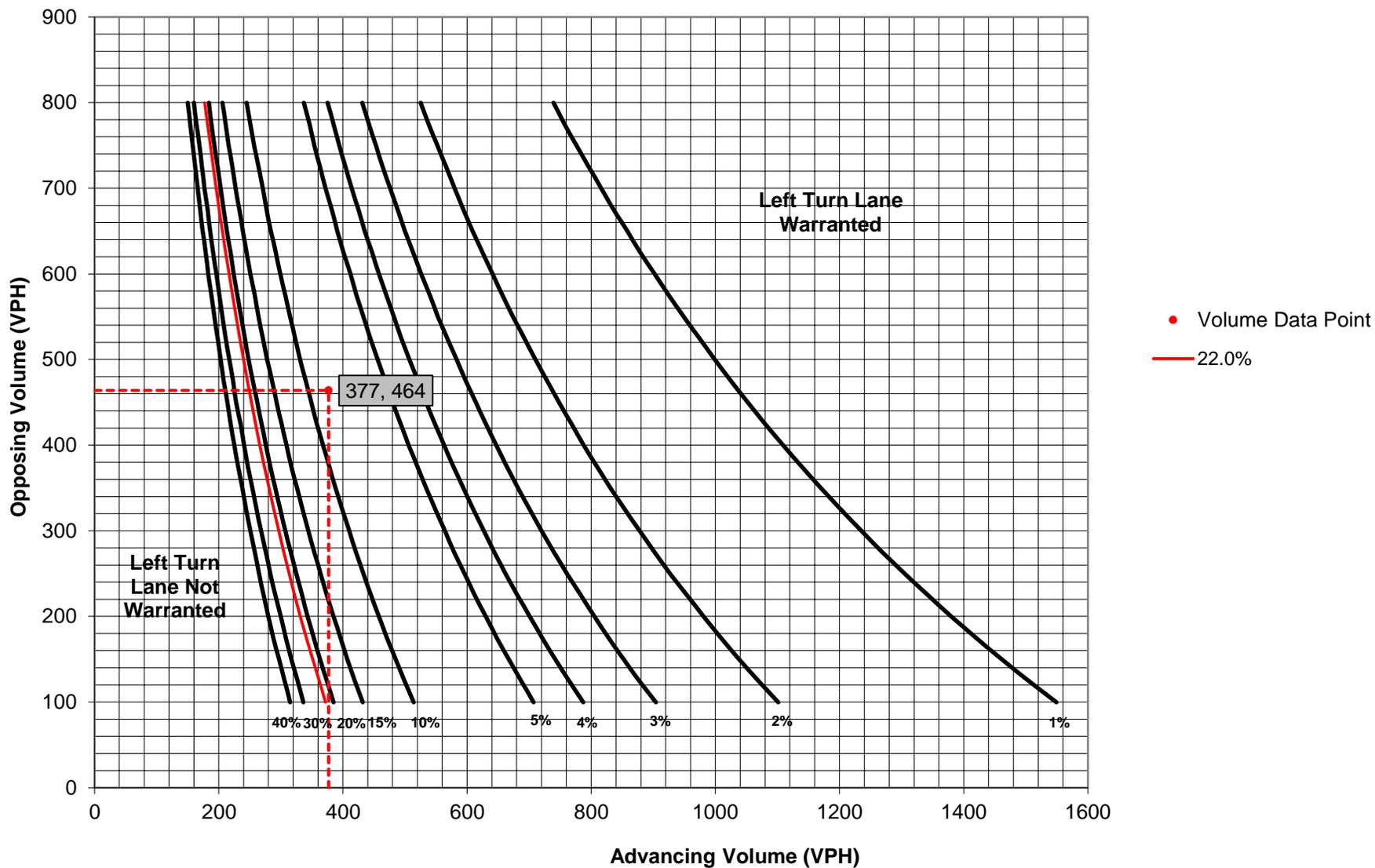
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Left Turn Lane Storage Length, Condition A:	<input type="text" value="N/A"/>	Feet
Condition B:	<input type="text" value="N/A"/>	Feet
Condition C:	<input type="text" value="136"/>	Feet
Required Left Turn Lane Storage Length:	<input type="text" value="150"/>	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 2. Warrant for left turn lanes on two-lane highways
(40 mph speed, unsignalized and signalized intersections)**
(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

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	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 SB Ramps, SR 3033 SBL Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	130	1.0%	132	Advancing Volume: <input type="text" value="357"/>
	Through	-	218	2.0%	225	Opposing Volume: <input type="text" value="696"/>
	Right	No	0	0.0%	N/A	Left Turn Volume: <input type="text" value="132"/>
Opposing	Left	No	0	0.0%	N/A	
	Through	-	376	1.0%	382	
	Right	Yes	304	2.0%	314	% Left Turns in Advancing Volume: <input type="text" value="36.97%"/>
Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Right Turn Volume: <input type="text" value="N/A"/>
	Right	-			N/A	

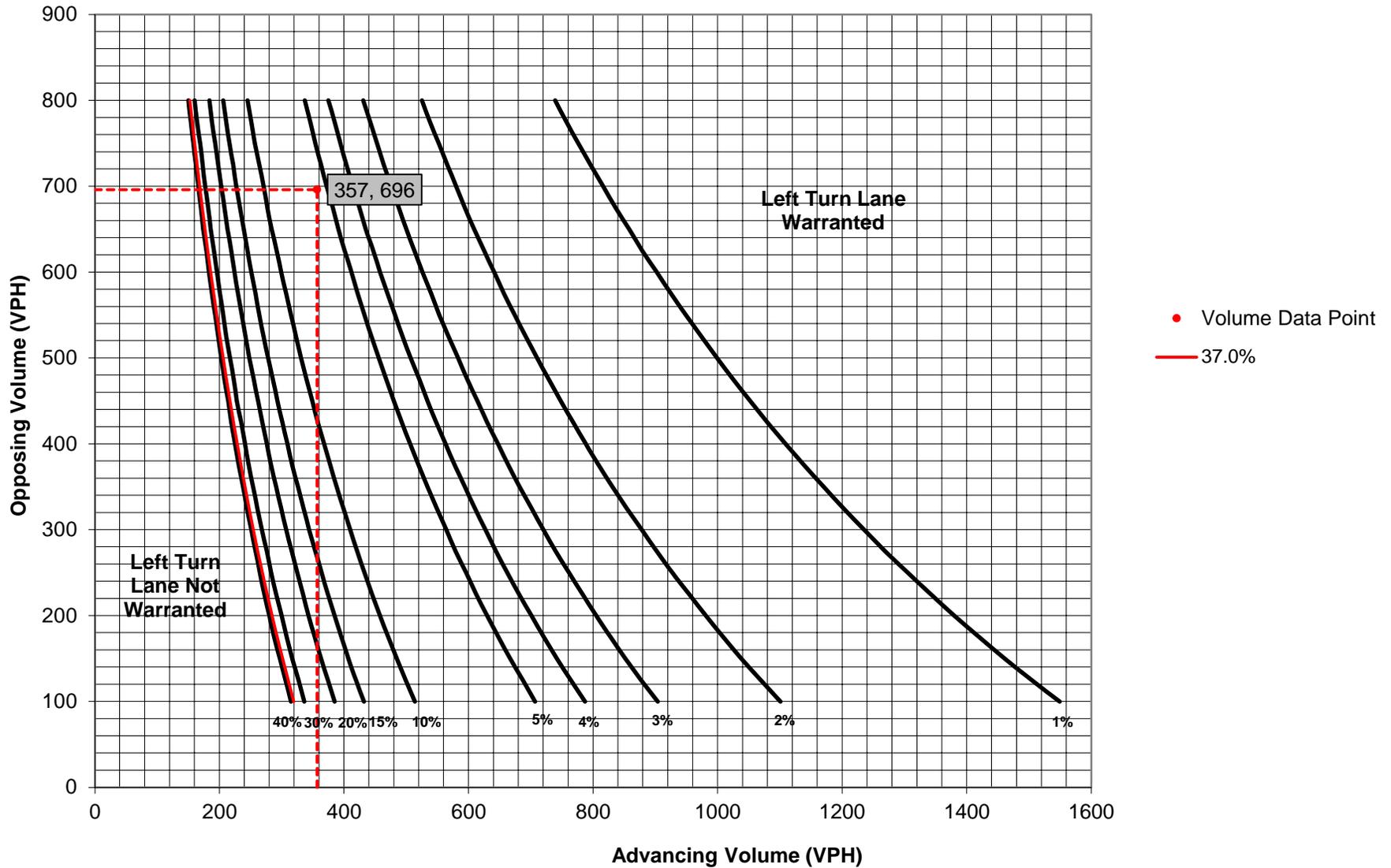
TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="Figure 2"/>	Applicable Warrant Figure: <input type="text" value="N/A"/>
Warrant Met?: <input type="text" value="Yes"/>	Warrant Met?: <input type="text" value="N/A"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Unsignalized"/>						
Design Hour Volume of Turning Lane: <input type="text" value="132"/>						
Cycles Per Hour (Assumed): <input type="text" value="60"/>						
Cycles Per Hour (If Known): <input type="text" value=""/>	Average # of Vehicles/Cycle: <input type="text" value="2.0"/>					
PennDOT Publication 46, Exhibit 11-6						
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B
Left Turn Lane Storage Length, Condition A: <input type="text" value="N/A"/> Feet						
Condition B: <input type="text" value="N/A"/> Feet						
Condition C: <input type="text" value="161"/> Feet						
Required Left Turn Lane Storage Length: <input type="text" value="175"/> Feet						
Additional Findings: <input type="text" value="N/A"/>						
Additional Comments / Justifications: <input style="height: 40px;" type="text"/>						

**Figure 2. Warrant for left turn lanes on two-lane highways
 (40 mph speed, unsignalized and signalized intersections)**
 (L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

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Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 NB Ramps, SR 3033 SBR Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Signalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes			N/A
	Through	-			N/A
	Right	No			N/A
Opposing	Left	No			N/A
	Through	-			N/A
	Right	Yes			N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume: <input style="width: 100px;" type="text" value="N/A"/>	

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	375	5.0%	404
	Right	-	46	4.0%	49

Advancing Volume:	453
Right Turn Volume:	49

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input style="width: 100px;" type="text" value="N/A"/>	Applicable Warrant Figure: <input style="width: 100px;" type="text" value="Figure 9"/>
Warrant Met?: <input style="width: 100px;" type="text" value="N/A"/>	Warrant Met?: <input style="width: 100px;" type="text" value="No"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input style="width: 100px;" type="text" value="Signalized"/>	
Design Hour Volume of Turning Lane: <input style="width: 100px;" type="text" value="49"/>	
Cycles Per Hour (Assumed): <input style="width: 100px;" type="text" value="Known"/>	
Cycles Per Hour (If Known): <input style="width: 100px;" type="text" value="40"/>	Average # of Vehicles/Cycle: <input style="width: 100px;" type="text" value="N/A"/>

PennDOT Publication 46, Exhibit 11-6

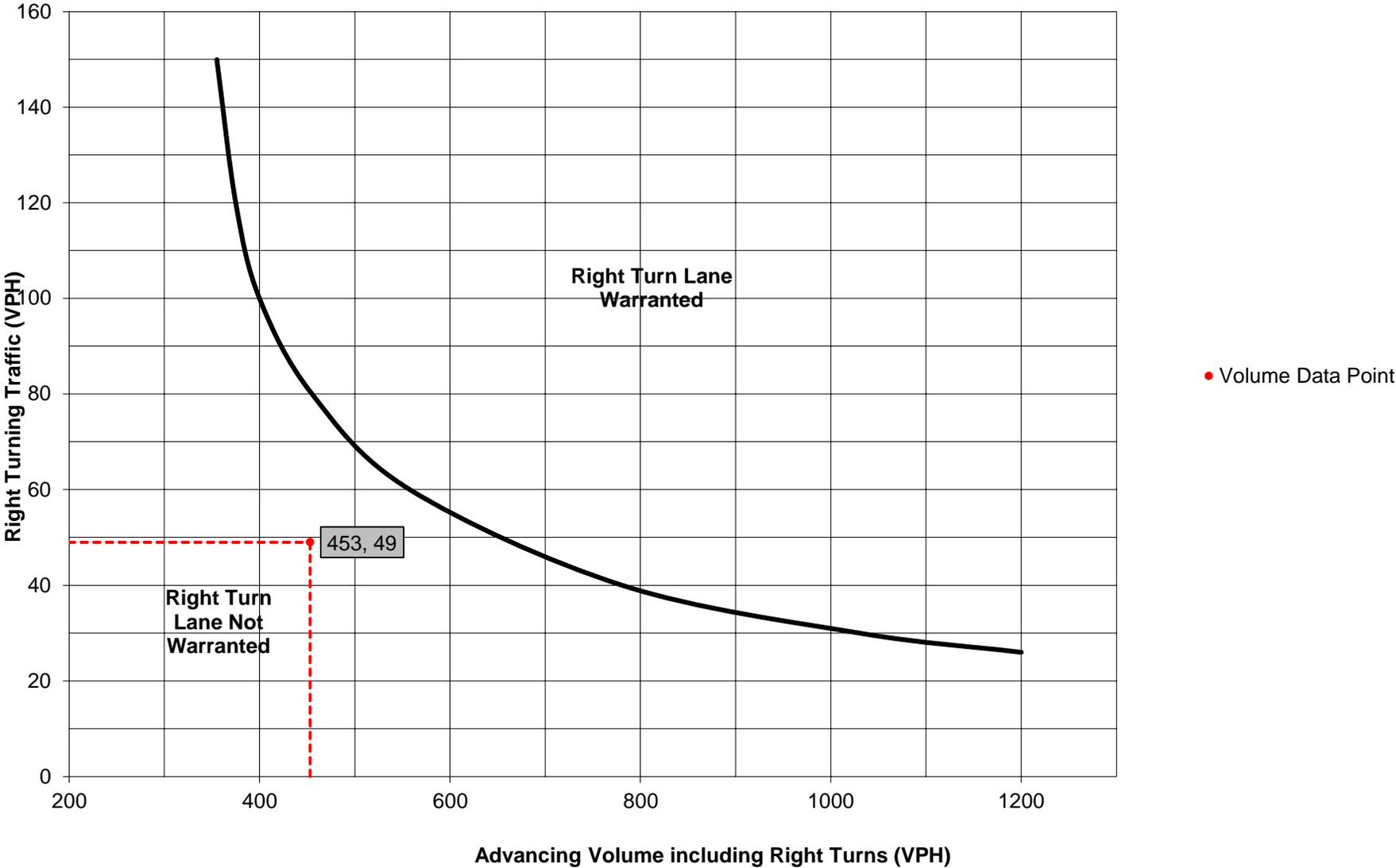
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Right Turn Lane Storage Length:	N/A	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

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Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
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	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 NB Ramps, SR 3033 SBR Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Signalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes			N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-			N/A	Opposing Volume: <input type="text" value="N/A"/>
	Right	No			N/A	Left Turn Volume: <input type="text" value="N/A"/>
Opposing	Left	No			N/A	
	Through	-			N/A	
	Right	Yes			N/A	% Left Turns in Advancing Volume: <input type="text" value="N/A"/>
Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	No	0	0.0%	N/A	Advancing Volume: <input type="text" value="417"/>
	Through	-	360	4.0%	382	Right Turn Volume: <input type="text" value="35"/>
	Right	-	35	0.0%	35	

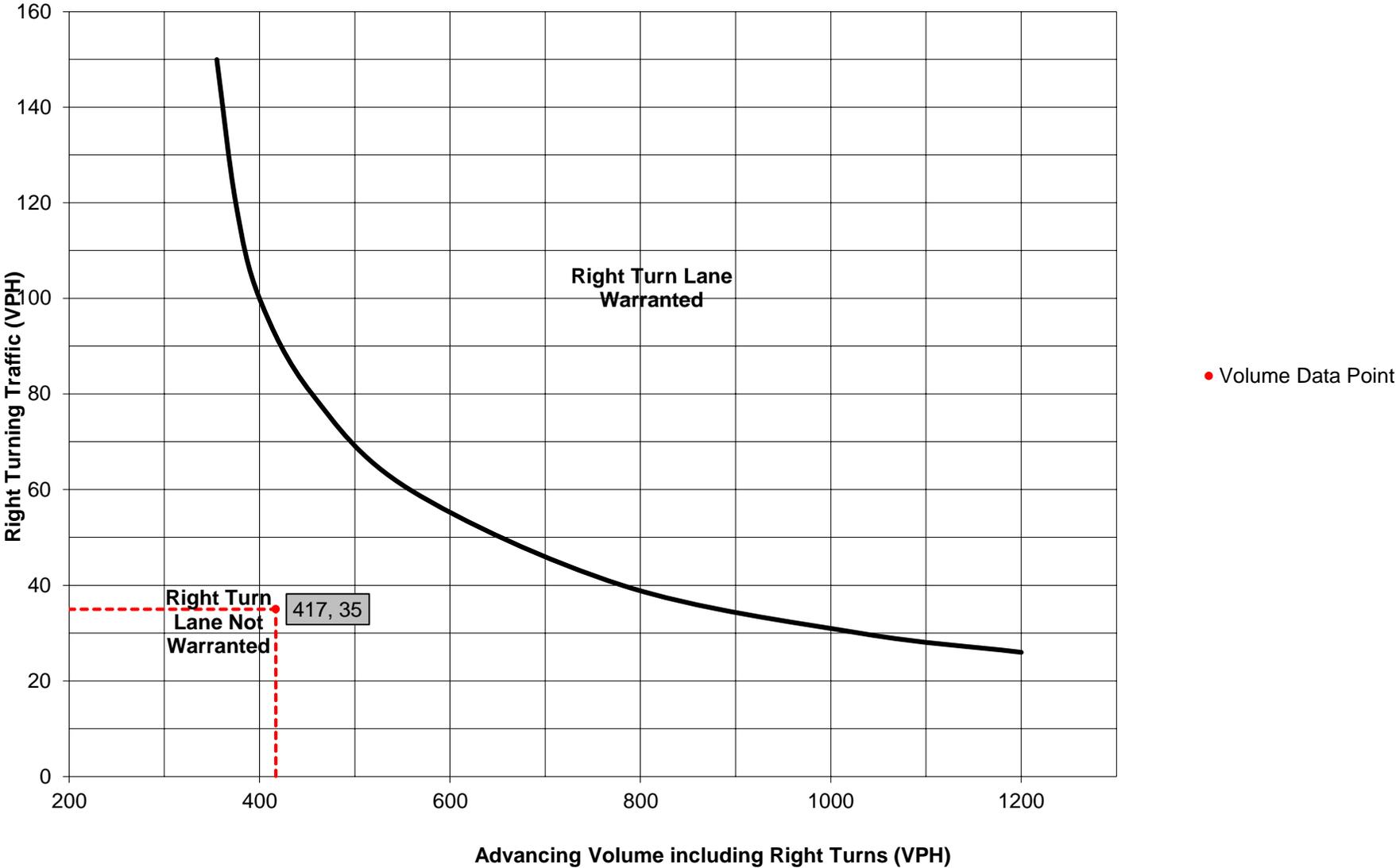
TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="N/A"/>	Applicable Warrant Figure: <input type="text" value="Figure 9"/>
Warrant Met?: <input type="text" value="N/A"/>	Warrant Met?: <input type="text" value="No"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Signalized"/>						
Design Hour Volume of Turning Lane: <input type="text" value="35"/>						
Cycles Per Hour (Assumed): <input type="text" value="Known"/>						
Cycles Per Hour (If Known): <input type="text" value="48"/>	Average # of Vehicles/Cycle: <input type="text" value="N/A"/>					
PennDOT Publication 46, Exhibit 11-6						
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B
Right Turn Lane Storage Length, Condition A: <input type="text" value="N/A"/> Feet						
Condition B: <input type="text" value="N/A"/> Feet						
Condition C: <input type="text" value="N/A"/> Feet						
Required Right Turn Lane Storage Length: <input type="text" value="N/A"/> Feet						
Additional Findings: <input type="text" value="N/A"/>						
Additional Comments / Justifications: <input style="height: 40px;" type="text"/>						

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



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PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 SB Ramps, SR 3033 NBR Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Signalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes			N/A
	Through	-			N/A
	Right	No			N/A
Opposing	Left	No			N/A
	Through	-			N/A
	Right	Yes			N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	
	N/A

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	352	4.0%	374
	Right	-	83	5.0%	90

Advancing Volume:	464
Right Turn Volume:	90

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input style="width: 80%;" type="text" value="N/A"/>	Applicable Warrant Figure: <input style="width: 80%;" type="text" value="Figure 9"/>
Warrant Met?: <input style="width: 80%;" type="text" value="N/A"/>	Warrant Met?: <input style="width: 80%;" type="text" value="Yes"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Signalized"/>	
Design Hour Volume of Turning Lane: <input type="text" value="90"/>	
Cycles Per Hour (Assumed): <input type="text" value="Known"/>	
Cycles Per Hour (If Known): <input type="text" value="60"/>	Average # of Vehicles/Cycle: <input style="width: 100px;" type="text" value="2.0"/>

PennDOT Publication 46, Exhibit 11-6

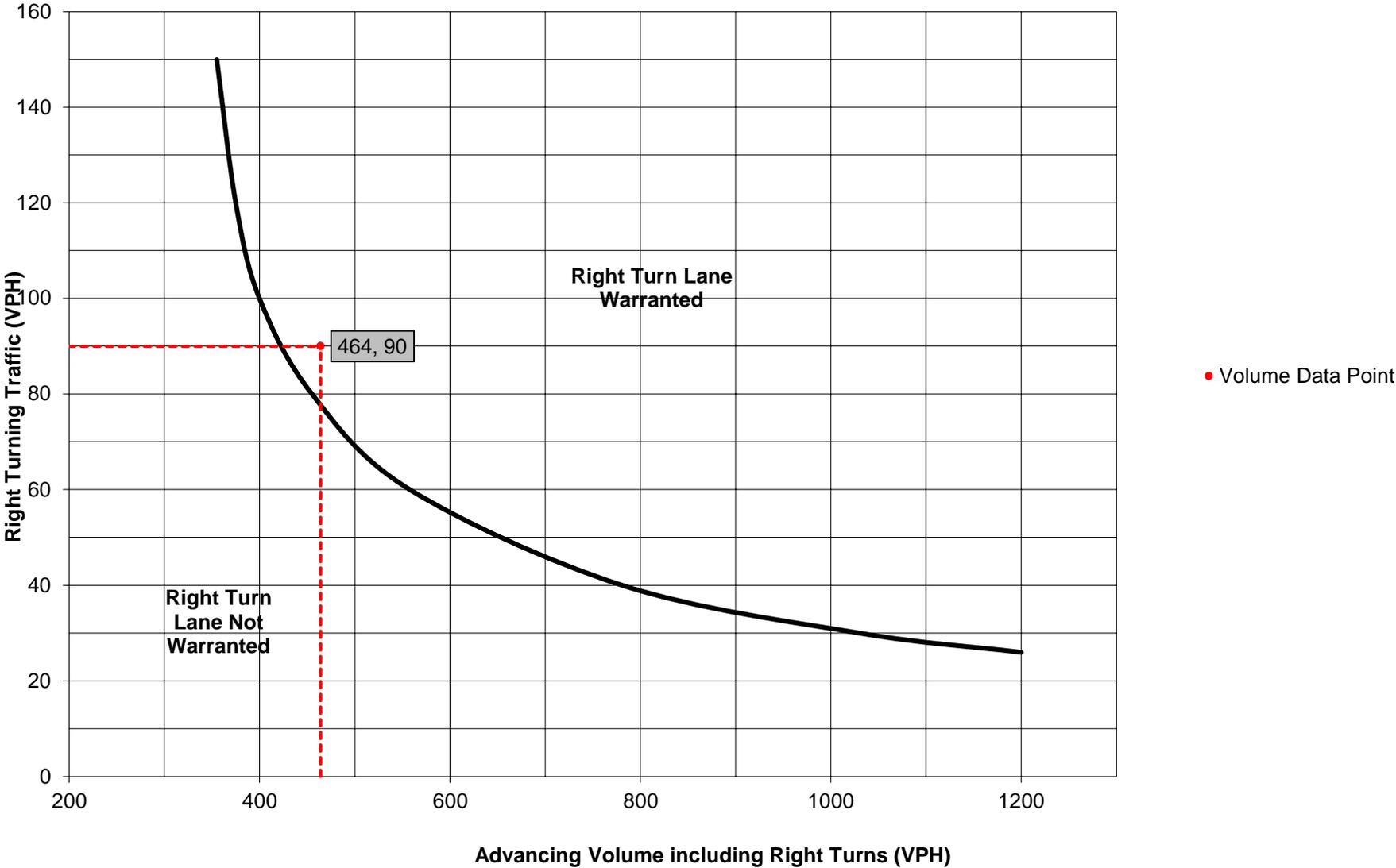
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	75	Feet
Condition C:	161	Feet
Required Right Turn Lane Storage Length:	175	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



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	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 SB Ramps, SR 3033 NBR Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Signalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes			N/A
	Through	-			N/A
	Right	No			N/A
Opposing	Left	No			N/A
	Through	-			N/A
	Right	Yes			N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	376	1.0%	382
	Right	-	304	2.0%	314

Advancing Volume:	696
Right Turn Volume:	314

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input style="width: 80%;" type="text" value="N/A"/>	Applicable Warrant Figure: <input style="width: 80%;" type="text" value="Figure 9"/>
Warrant Met?: <input style="width: 80%;" type="text" value="N/A"/>	Warrant Met?: <input style="width: 80%;" type="text" value="Yes"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input style="width: 80%;" type="text" value="Signalized"/>	
Design Hour Volume of Turning Lane: <input style="width: 80%;" type="text" value="314"/>	
Cycles Per Hour (Assumed): <input style="width: 80%;" type="text" value="Known"/>	
Cycles Per Hour (If Known): <input style="width: 80%;" type="text" value="45"/>	Average # of Vehicles/Cycle: <input style="width: 80%;" type="text" value="7.0"/>

PennDOT Publication 46, Exhibit 11-6

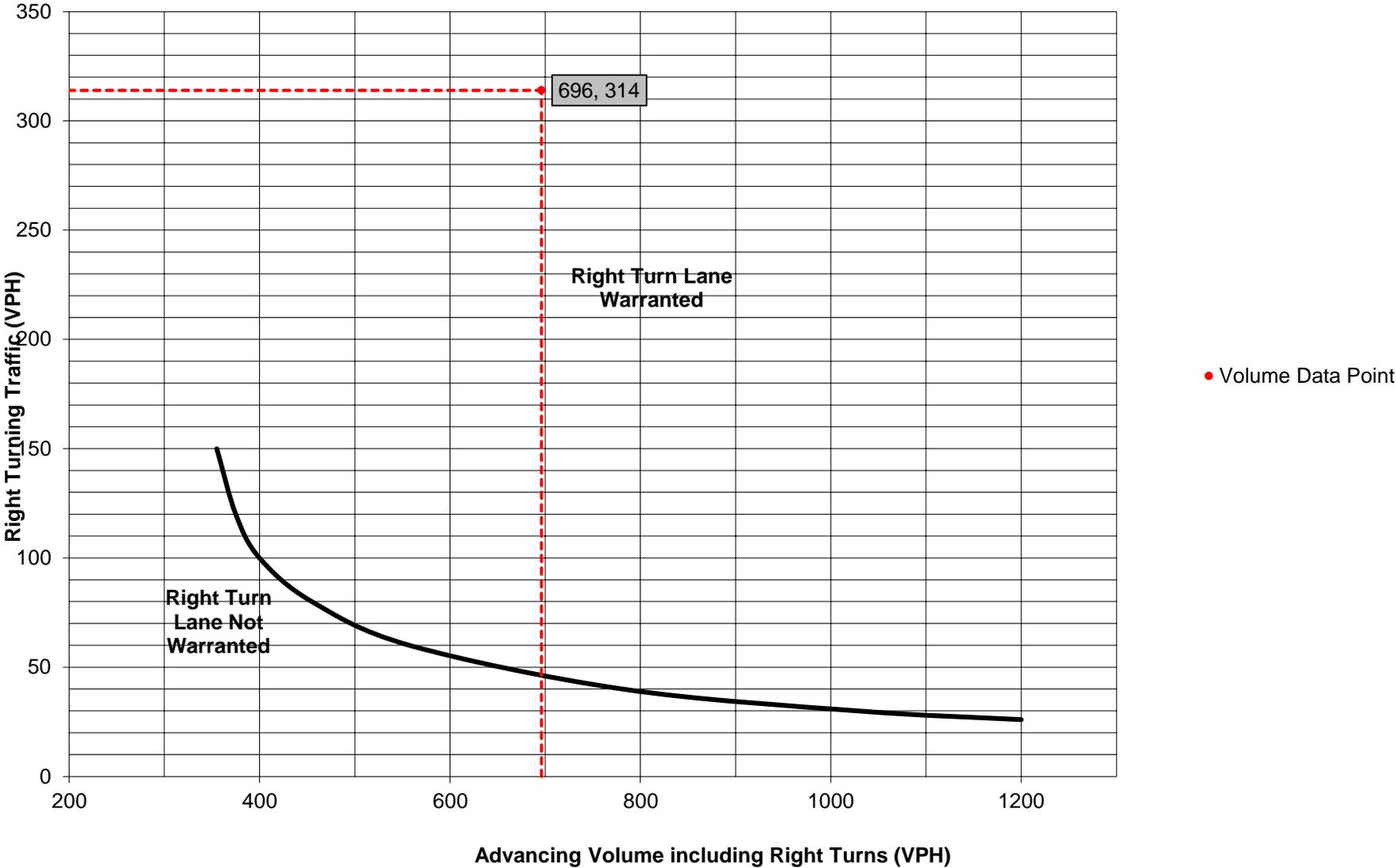
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	75	Feet
Condition C:	336	Feet
Required Right Turn Lane Storage Length:	350	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



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	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 NB Ramps, SR 3033 SBR Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes			N/A
	Through	-			N/A
	Right	No			N/A
Opposing	Left	No			N/A
	Through	-			N/A
	Right	Yes			N/A

Advancing Volume:	<input type="text" value="N/A"/>
Opposing Volume:	<input type="text" value="N/A"/>
Left Turn Volume:	<input type="text" value="N/A"/>
% Left Turns in Advancing Volume: <input type="text" value="N/A"/>	

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	375	5.0%	404
	Right	-	46	4.0%	49

Advancing Volume:	<input type="text" value="453"/>
Right Turn Volume:	<input type="text" value="49"/>

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input style="width: 80%;" type="text" value="N/A"/>	Applicable Warrant Figure: <input style="width: 80%;" type="text" value="Figure 9"/>
Warrant Met?: <input style="width: 80%;" type="text" value="N/A"/>	Warrant Met?: <input style="width: 80%;" type="text" value="No"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input style="width: 80%;" type="text" value="Unsignalized"/>	
Design Hour Volume of Turning Lane: <input style="width: 80%;" type="text" value="49"/>	
Cycles Per Hour (Assumed): <input style="width: 80%;" type="text" value="60"/>	
Cycles Per Hour (If Known): <input style="width: 80%;" type="text" value=""/>	Average # of Vehicles/Cycle: <input style="width: 80%;" type="text" value="N/A"/>

PennDOT Publication 46, Exhibit 11-6

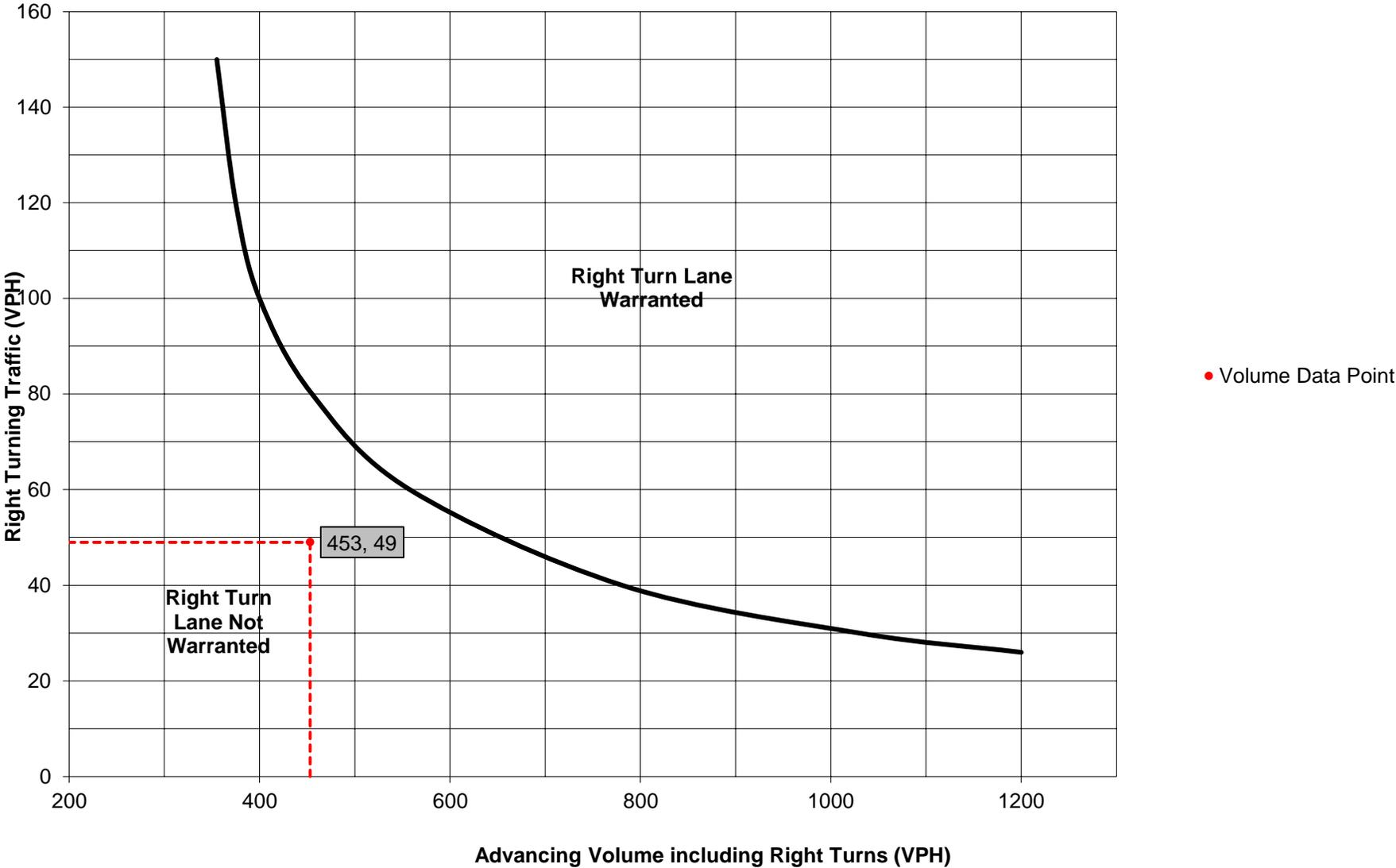
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	<input style="width: 80%;" type="text" value="N/A"/>	Feet
Condition B:	<input style="width: 80%;" type="text" value="N/A"/>	Feet
Condition C:	<input style="width: 80%;" type="text" value="N/A"/>	Feet
Required Right Turn Lane Storage Length:	<input style="width: 80%;" type="text" value="N/A"/>	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 NB Ramps, SR 3033 SBR Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes			N/A
	Through	-			N/A
	Right	No			N/A
Opposing	Left	No			N/A
	Through	-			N/A
	Right	Yes			N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	360	4.0%	382
	Right	-	35	0.0%	35

Advancing Volume:	417
Right Turn Volume:	35

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input style="width: 80%;" type="text" value="N/A"/>	Applicable Warrant Figure: <input style="width: 80%;" type="text" value="Figure 9"/>
Warrant Met?: <input style="width: 80%;" type="text" value="N/A"/>	Warrant Met?: <input style="width: 80%;" type="text" value="No"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Unsignalized"/>	
Design Hour Volume of Turning Lane: <input type="text" value="35"/>	
Cycles Per Hour (Assumed): <input type="text" value="60"/>	
Cycles Per Hour (If Known): <input type="text" value=""/>	Average # of Vehicles/Cycle: <input style="width: 80%;" type="text" value="N/A"/>

PennDOT Publication 46, Exhibit 11-6

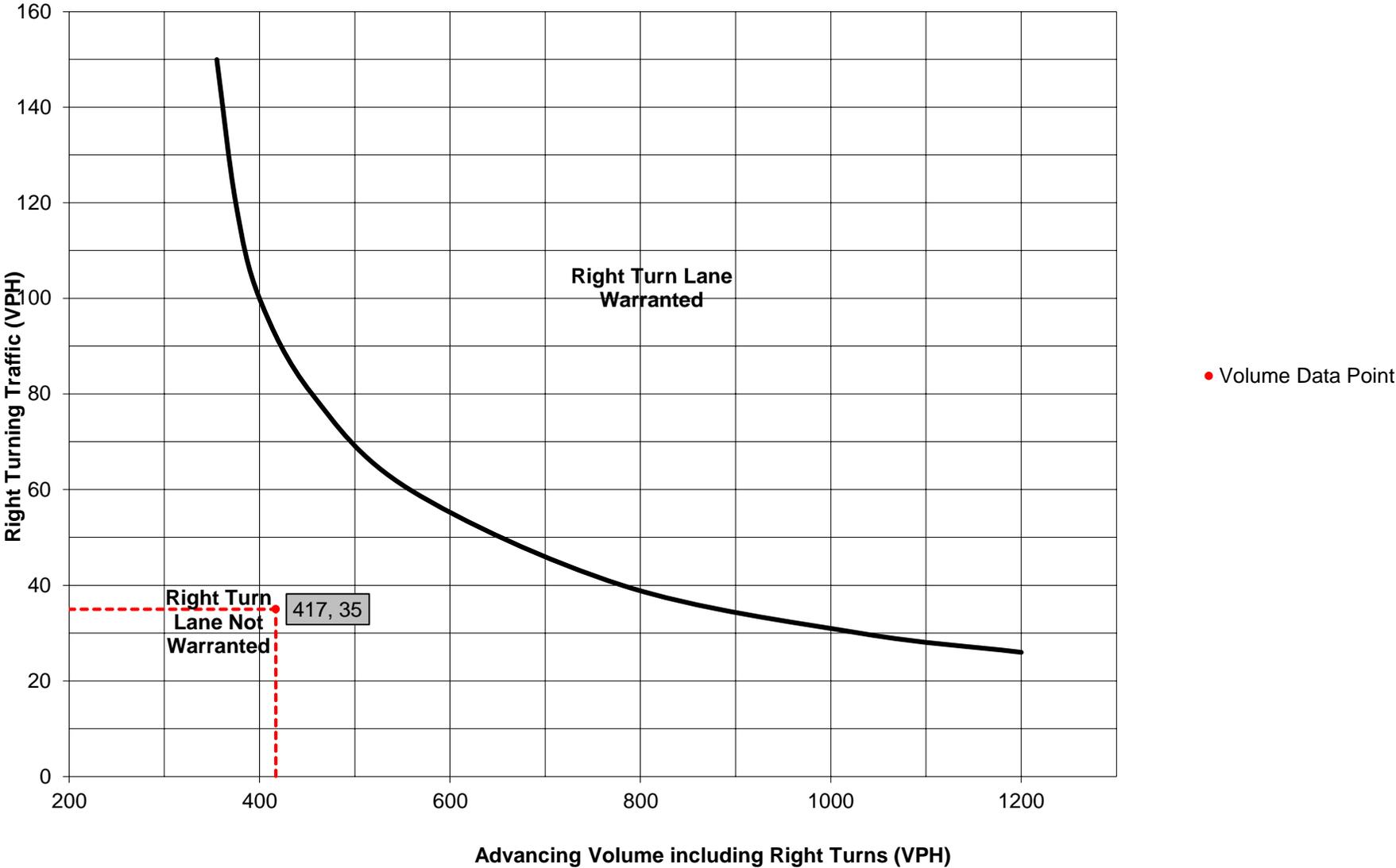
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Right Turn Lane Storage Length:	N/A	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 SB Ramps, SR 3033 NBR Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes			N/A
	Through	-			N/A
	Right	No			N/A
Opposing	Left	No			N/A
	Through	-			N/A
	Right	Yes			N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume: <input style="width: 100px;" type="text" value="N/A"/>	

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	352	4.0%	374
	Right	-	83	5.0%	90

Advancing Volume:	464
Right Turn Volume:	90

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input style="width: 100px;" type="text" value="N/A"/> Warrant Met?: <input style="width: 100px;" type="text" value="N/A"/>	Applicable Warrant Figure: <input style="width: 100px;" type="text" value="Figure 9"/> Warrant Met?: <input style="width: 100px;" type="text" value="Yes"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input style="width: 100px;" type="text" value="Unsignalized"/>	
Design Hour Volume of Turning Lane: <input style="width: 100px;" type="text" value="90"/>	
Cycles Per Hour (Assumed): <input style="width: 100px;" type="text" value="60"/>	
Cycles Per Hour (If Known): <input style="width: 100px;" type="text"/>	Average # of Vehicles/Cycle: <input style="width: 100px;" type="text" value="2.0"/>

PennDOT Publication 46, Exhibit 11-6

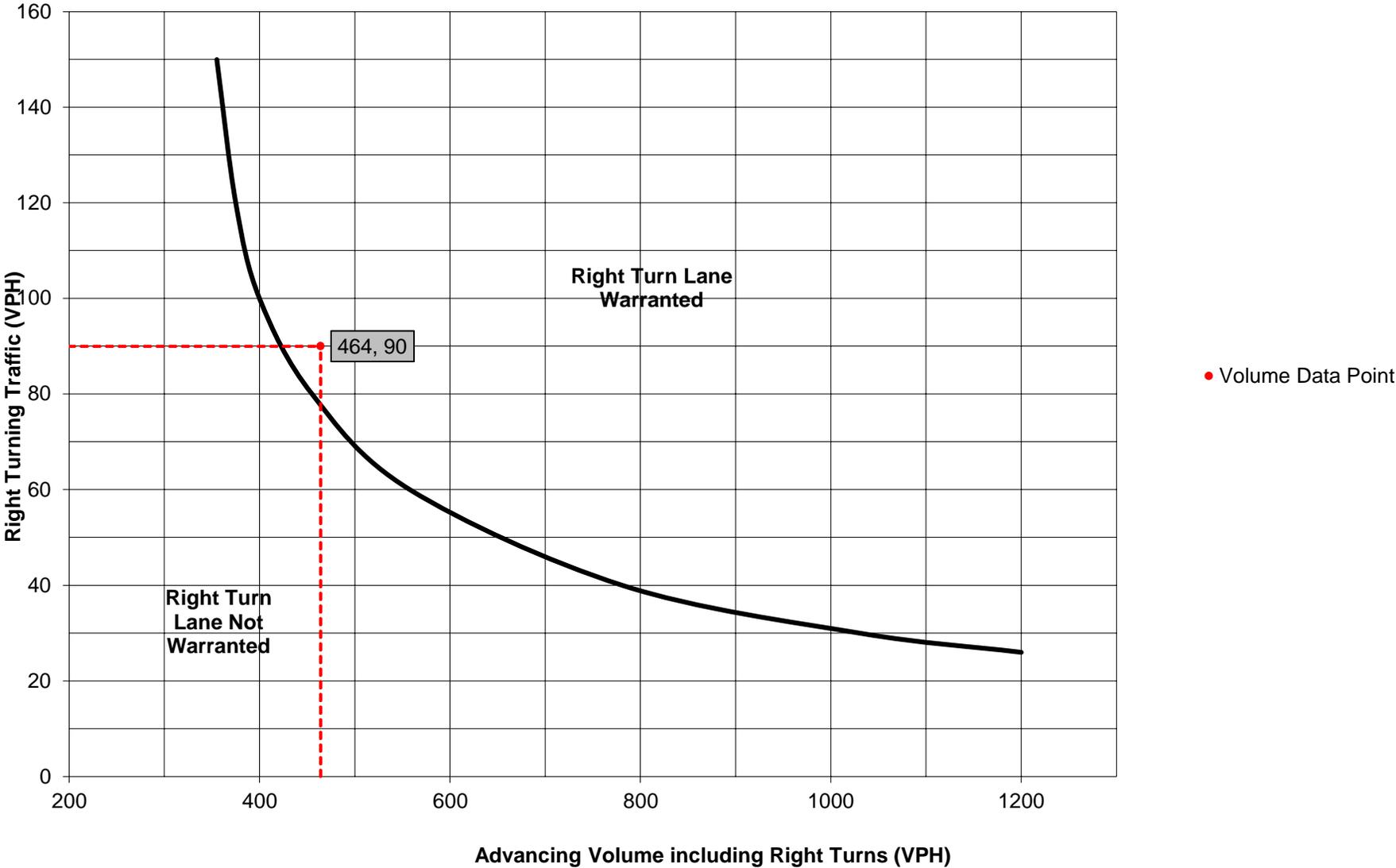
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	161	Feet
Required Right Turn Lane Storage Length:	175	Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: <input type="text" value="New Garden Township"/>	Analysis Date: <input type="text" value="11/15/2022"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="ASR"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="ANT"/>
	Agency/Company Name: <input type="text" value="AECOM"/>
Intersection & Approach Description: <input type="text" value="Newark Rd (SR 3033) and SR 1 SB Ramps, SR 3033 NBR Approach"/>	
Analysis Period: <input type="text" value="2050 Design"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	
Posted Speed Limit (MPH): <input type="text" value="40"/>	Type of Analysis
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes			N/A
	Through	-			N/A
	Right	No			N/A
Opposing	Left	No			N/A
	Through	-			N/A
	Right	Yes			N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	
	N/A

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	376	1.0%	382
	Right	-	304	2.0%	314

Advancing Volume:	696
Right Turn Volume:	314

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input style="width: 80%;" type="text" value="N/A"/>	Applicable Warrant Figure: <input style="width: 80%;" type="text" value="Figure 9"/>
Warrant Met?: <input style="width: 80%;" type="text" value="N/A"/>	Warrant Met?: <input style="width: 80%;" type="text" value="Yes"/>

TURN LANE LENGTH CALCULATIONS

Intersection Control: <input style="width: 80%;" type="text" value="Unsignalized"/>	
Design Hour Volume of Turning Lane: <input style="width: 80%;" type="text" value="314"/>	
Cycles Per Hour (Assumed): <input style="width: 80%;" type="text" value="60"/>	
Cycles Per Hour (If Known): <input style="width: 80%;" type="text"/>	Average # of Vehicles/Cycle: <input style="width: 80%;" type="text" value="5.0"/>

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

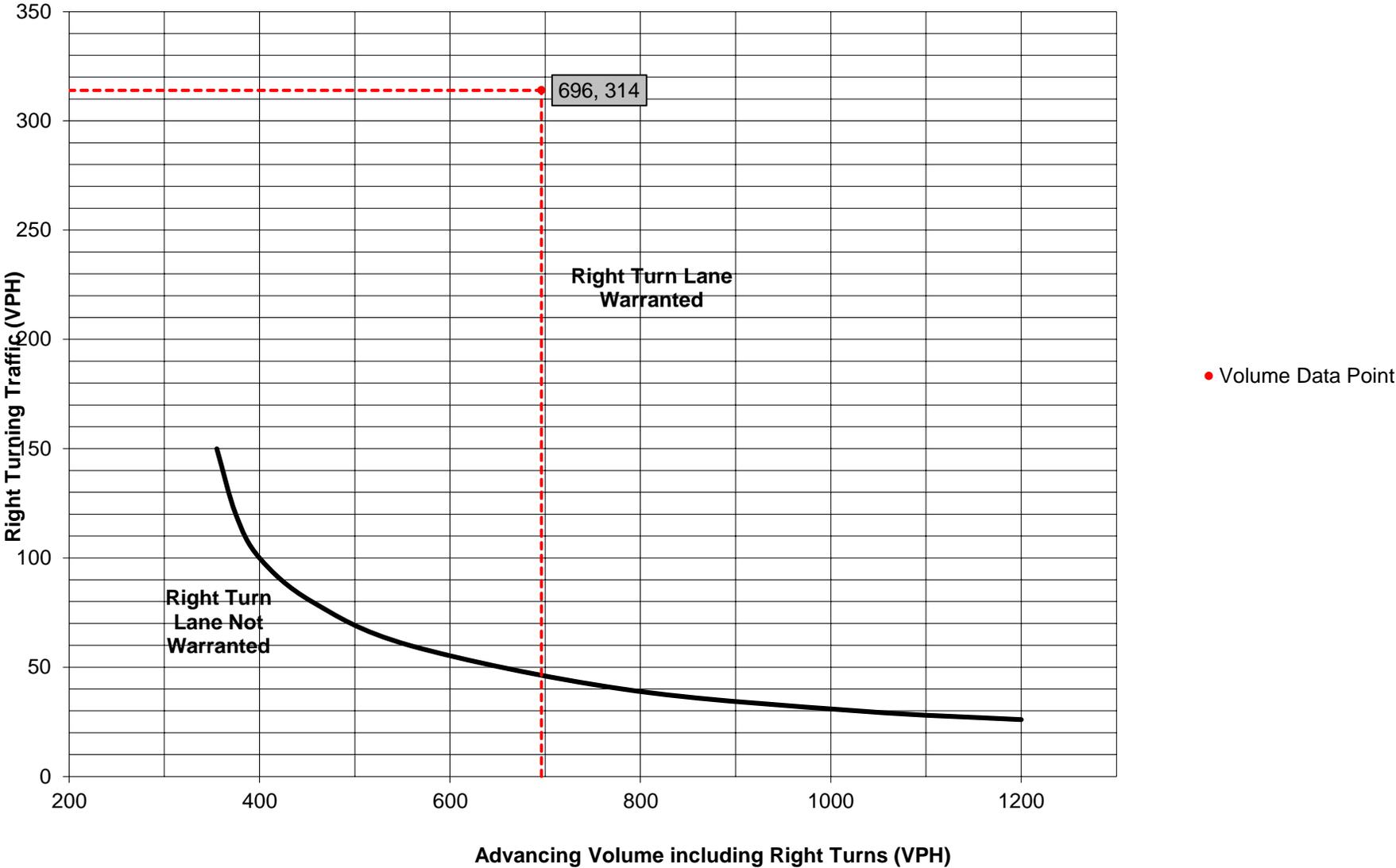
Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	261	Feet
Required Right Turn Lane Storage Length:	275	Feet

Additional Findings:

N/A

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Appendix F
Traffic Analysis Reports

Existing and No Build Results

**2022 Existing Year
Capacity Results
AM Peak Hour**

HCM 6th TWSC
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	3.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	59	48	274	56	64	142
Future Vol, veh/h	59	48	274	56	64	142
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, %	-2	-	-3	-	-	3
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	9	4	5	3	6
Mvmt Flow	66	54	308	63	72	160

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	644	340	0	0	371
Stage 1	340	-	-	-	-
Stage 2	304	-	-	-	-
Critical Hdwy	6.04	6.09	-	-	4.9
Critical Hdwy Stg 1	5.04	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-
Follow-up Hdwy	3	3.2	-	-	3
Pot Cap-1 Maneuver	526	733	-	-	842
Stage 1	856	-	-	-	-
Stage 2	888	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	477	733	-	-	842
Mov Cap-2 Maneuver	477	-	-	-	-
Stage 1	856	-	-	-	-
Stage 2	805	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	566	842
HCM Lane V/C Ratio	-	-	0.212	0.085
HCM Control Delay (s)	-	-	13.1	9.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0.3

HCM 6th TWSC
52: Newark Rd (SR 3033) & SR 1 NB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	10.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	164	162	113	166	164	37
Future Vol, veh/h	164	162	113	166	164	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	8	5	7	5	4
Mvmt Flow	191	188	131	193	191	43

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	668	213	234	0	-	0
Stage 1	213	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Critical Hdwy	6.04	6.08	4	-	-	-
Critical Hdwy Stg 1	5.04	-	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-	-
Follow-up Hdwy	3	3.2	3	-	-	-
Pot Cap-1 Maneuver	510	862	1018	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	437	862	1018	-	-	-
Mov Cap-2 Maneuver	437	-	-	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	763	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.2	3.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1018	-	579	-	-
HCM Lane V/C Ratio	0.129	-	0.655	-	-
HCM Control Delay (s)	9.1	0	22.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	4.8	-	-

**2022 Existing Year
Capacity Results
PM Peak Hour**

HCM 6th TWSC
51: Newark Rd (SR 3033) & SR 1 SB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	5.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	132	38	221	154	105	164
Future Vol, veh/h	132	38	221	154	105	164
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, %	-2	-	-3	-	-	3
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	0	1	2	1	2
Mvmt Flow	145	42	243	169	115	180

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	738	328	0	0	412
Stage 1	328	-	-	-	-
Stage 2	410	-	-	-	-
Critical Hdwy	6.04	6	-	-	4.9
Critical Hdwy Stg 1	5.04	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3
Pot Cap-1 Maneuver	466	772	-	-	809
Stage 1	866	-	-	-	-
Stage 2	798	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	392	772	-	-	809
Mov Cap-2 Maneuver	392	-	-	-	-
Stage 1	866	-	-	-	-
Stage 2	672	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	440	809
HCM Lane V/C Ratio	-	-	0.425	0.143
HCM Control Delay (s)	-	-	19.1	10.2
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	2.1	0.5

HCM 6th TWSC
 52: Newark Rd (SR 3033) & SR 1 NB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	81	144	90	294	268	28
Future Vol, veh/h	81	144	90	294	268	28
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, %	-2	-	-	-2	4	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	4	2	2	4	0
Mvmt Flow	84	150	94	306	279	29

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	788	294	308	0	-	0
Stage 1	294	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Critical Hdwy	6	6.04	3.9	-	-	-
Critical Hdwy Stg 1	5	-	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	440	803	975	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	389	803	975	-	-	-
Mov Cap-2 Maneuver	389	-	-	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.3	2.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	975	-	581	-	-
HCM Lane V/C Ratio	0.096	-	0.403	-	-
HCM Control Delay (s)	9.1	0	15.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-

**2022 Existing Year
Queuing Results
AM Peak Hour**

Queuing and Blocking Report

Baseline

09/02/2022

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	99	4	62
Average Queue (ft)	43	0	18
95th Queue (ft)	76	3	52
Link Distance (ft)	475	652	1124
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	219	79	9
Average Queue (ft)	90	22	0
95th Queue (ft)	174	57	5
Link Distance (ft)	521	455	652
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

**2022 Existing Year
Queuing Results
PM Peak Hour**

Queuing and Blocking Report

Baseline

09/02/2022

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	112	13	79
Average Queue (ft)	57	1	32
95th Queue (ft)	97	8	70
Link Distance (ft)	475	652	1124
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	122	87
Average Queue (ft)	59	22
95th Queue (ft)	103	64
Link Distance (ft)	521	455
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

**2030 Opening Year
No Build Capacity Results
AM Peak Hour**

HCM 6th TWSC
51: Newark Rd (SR 3033) & SR 1 SB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	5.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	142	51	303	74	68	244
Future Vol, veh/h	142	51	303	74	68	244
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, %	-2	-	-3	-	-	3
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	9	4	5	3	6
Mvmt Flow	160	57	340	83	76	274

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	808	382	0	0	423
Stage 1	382	-	-	-	-
Stage 2	426	-	-	-	-
Critical Hdwy	6.04	6.09	-	-	4.9
Critical Hdwy Stg 1	5.04	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-
Follow-up Hdwy	3	3.2	-	-	3
Pot Cap-1 Maneuver	425	695	-	-	801
Stage 1	821	-	-	-	-
Stage 2	785	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	377	695	-	-	801
Mov Cap-2 Maneuver	377	-	-	-	-
Stage 1	821	-	-	-	-
Stage 2	697	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.7	0	2.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	429	801
HCM Lane V/C Ratio	-	-	0.505	0.095
HCM Control Delay (s)	-	-	21.7	10
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.8	0.3

HCM 6th TWSC
52: Newark Rd (SR 3033) & SR 1 NB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	56.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	174	275	131	203	346	33
Future Vol, veh/h	174	275	131	203	346	33
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, %	-2	-	-	-2	4	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	8	5	7	5	4
Mvmt Flow	202	320	152	236	402	38

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	961	421	440	0	-	0
Stage 1	421	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Critical Hdwy	6.04	6.08	4	-	-	-
Critical Hdwy Stg 1	5.04	-	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-	-
Follow-up Hdwy	3	3.2	3	-	-	-
Pot Cap-1 Maneuver	348	662	879	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	279	662	879	-	-	-
Mov Cap-2 Maneuver	279	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	700	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	142.3	3.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	879	-	432	-	-
HCM Lane V/C Ratio	0.173	-	1.209	-	-
HCM Control Delay (s)	10	0	142.3	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.6	-	20.7	-	-

**2030 Opening Year
No Build Capacity Results
PM Peak Hour**

HCM 6th TWSC
51: Newark Rd (SR 3033) & SR 1 SB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	8.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	153	40	337	277	112	189
Future Vol, veh/h	153	40	337	277	112	189
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, %	-2	-	-3	-	-	3
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	0	1	2	1	2
Mvmt Flow	168	44	370	304	123	208

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	976	522	0	0	674
Stage 1	522	-	-	-	-
Stage 2	454	-	-	-	-
Critical Hdwy	6.04	6	-	-	4.9
Critical Hdwy Stg 1	5.04	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3
Pot Cap-1 Maneuver	341	604	-	-	627
Stage 1	713	-	-	-	-
Stage 2	763	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	265	604	-	-	627
Mov Cap-2 Maneuver	265	-	-	-	-
Stage 1	713	-	-	-	-
Stage 2	594	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	41.4	0	4.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	300	627
HCM Lane V/C Ratio	-	-	0.707	0.196
HCM Control Delay (s)	-	-	41.4	12.1
HCM Lane LOS	-	-	E	B
HCM 95th %tile Q(veh)	-	-	5	0.7

HCM 6th TWSC
52: Newark Rd (SR 3033) & SR 1 NB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	10					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	86	170	183	528	313	30
Future Vol, veh/h	86	170	183	528	313	30
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, %	-2	-	-	-2	4	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	4	2	2	4	0
Mvmt Flow	90	177	191	550	326	31

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1274	342	357	0	-	0
Stage 1	342	-	-	-	-	-
Stage 2	932	-	-	-	-	-
Critical Hdwy	6	6.04	3.9	-	-	-
Critical Hdwy Stg 1	5	-	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	233	755	942	-	-	-
Stage 1	858	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	165	755	942	-	-	-
Mov Cap-2 Maneuver	165	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	473	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	44	2.5	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	942	-	343	-	-
HCM Lane V/C Ratio	0.202	-	0.777	-	-
HCM Control Delay (s)	9.8	0	44	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.8	-	6.3	-	-

**2030 Opening Year
No Build Queuing Results
AM Peak Hour**

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	143	90
Average Queue (ft)	66	26
95th Queue (ft)	114	67
Link Distance (ft)	475	1124
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	533	112
Average Queue (ft)	314	40
95th Queue (ft)	591	88
Link Distance (ft)	521	455
Upstream Blk Time (%)	10	
Queuing Penalty (veh)	45	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement	EB
Directions Served	T
Maximum Queue (ft)	476
Average Queue (ft)	82
95th Queue (ft)	360
Link Distance (ft)	898
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 45

**2030 Opening Year
No Build Queuing Results
PM Peak Hour**

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	280	22	177
Average Queue (ft)	109	6	59
95th Queue (ft)	236	21	128
Link Distance (ft)	475	652	1124
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	266	154	4
Average Queue (ft)	106	57	0
95th Queue (ft)	220	120	3
Link Distance (ft)	521	455	652
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement

- Directions Served
- Maximum Queue (ft)
- Average Queue (ft)
- 95th Queue (ft)
- Link Distance (ft)
- Upstream Blk Time (%)
- Queuing Penalty (veh)
- Storage Bay Dist (ft)
- Storage Blk Time (%)
- Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

**2050 Design Year
No Build Capacity Results
AM Peak Hour**

HCM 6th TWSC
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	7.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	152	59	352	83	79	269
Future Vol, veh/h	152	59	352	83	79	269
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, %	-2	-	-3	-	-	3
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	9	4	5	3	6
Mvmt Flow	171	66	396	93	89	302

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	923	443	0	0	489
Stage 1	443	-	-	-	-
Stage 2	480	-	-	-	-
Critical Hdwy	6.04	6.09	-	-	4.9
Critical Hdwy Stg 1	5.04	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-
Follow-up Hdwy	3	3.2	-	-	3
Pot Cap-1 Maneuver	366	643	-	-	751
Stage 1	772	-	-	-	-
Stage 2	744	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	314	643	-	-	751
Mov Cap-2 Maneuver	314	-	-	-	-
Stage 1	772	-	-	-	-
Stage 2	638	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.2	0	2.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	366	751
HCM Lane V/C Ratio	-	-	0.648	0.118
HCM Control Delay (s)	-	-	31.2	10.4
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q(veh)	-	-	4.3	0.4

HCM 6th TWSC
52: Newark Rd (SR 3033) & SR 1 NB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	124					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	203	304	151	232	375	46
Future Vol, veh/h	203	304	151	232	375	46
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, %	-2	-	-	-2	4	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	8	5	7	5	4
Mvmt Flow	236	353	176	270	436	53

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1085	463	489	0	-	0
Stage 1	463	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Critical Hdwy	6.04	6.08	4	-	-	-
Critical Hdwy Stg 1	5.04	-	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-	-
Follow-up Hdwy	3	3.2	3	-	-	-
Pot Cap-1 Maneuver	295	628	849	-	-	-
Stage 1	756	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 223	628	849	-	-	-
Mov Cap-2 Maneuver	~ 223	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	644	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	317.5	4.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	849	-	364	-	-
HCM Lane V/C Ratio	0.207	-	1.62	-	-
HCM Control Delay (s)	10.3		317.5	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.8	-	34.6	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

**2050 Design Year
No Build Capacity Results
PM Peak Hour**

HCM 6th TWSC
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	21.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	177	47	376	304	130	218
Future Vol, veh/h	177	47	376	304	130	218
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, %	-2	-	-3	-	-	3
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	0	1	2	1	2
Mvmt Flow	195	52	413	334	143	240

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1106	580	0	0	747
Stage 1	580	-	-	-	-
Stage 2	526	-	-	-	-
Critical Hdwy	6.04	6	-	-	4.9
Critical Hdwy Stg 1	5.04	-	-	-	-
Critical Hdwy Stg 2	5.04	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3
Pot Cap-1 Maneuver	287	561	-	-	583
Stage 1	672	-	-	-	-
Stage 2	710	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	206	561	-	-	583
Mov Cap-2 Maneuver	206	-	-	-	-
Stage 1	672	-	-	-	-
Stage 2	509	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	112.1	0	4.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	238	583
HCM Lane V/C Ratio	-	-	1.034	0.245
HCM Control Delay (s)	-	-	112.1	13.2
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	10.1	1

HCM 6th TWSC
52: Newark Rd (SR 3033) & SR 1 NB Ramps

09/06/2022

Intersection						
Int Delay, s/veh	26.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	100	195	199	579	360	35
Future Vol, veh/h	100	195	199	579	360	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	4	2	2	4	0
Mvmt Flow	104	203	207	603	375	36

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1410	393	411	0	-	0
Stage 1	393	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Critical Hdwy	6	6.04	3.9	-	-	-
Critical Hdwy Stg 1	5	-	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	195	708	908	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	128	708	908	-	-	-
Mov Cap-2 Maneuver	128	-	-	-	-	-
Stage 1	535	-	-	-	-	-
Stage 2	433	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	123.9	2.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	908	-	279	-	-
HCM Lane V/C Ratio	0.228	-	1.101	-	-
HCM Control Delay (s)	10.1	0	123.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.9	-	12.6	-	-

**2050 Design Year
No Build Queuing Results
AM Peak Hour**

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	177	8	103
Average Queue (ft)	76	0	31
95th Queue (ft)	136	3	74
Link Distance (ft)	475	652	1124
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	537	123	16
Average Queue (ft)	515	44	1
95th Queue (ft)	617	88	8
Link Distance (ft)	521	455	652
Upstream Blk Time (%)	43		
Queuing Penalty (veh)	217		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement	EB
Directions Served	T
Maximum Queue (ft)	952
Average Queue (ft)	737
95th Queue (ft)	1241
Link Distance (ft)	898
Upstream Blk Time (%)	58
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 217

**2050 Design Year
No Build Queuing Results
PM Peak Hour**

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	475	34	228
Average Queue (ft)	303	6	78
95th Queue (ft)	584	25	166
Link Distance (ft)	475	652	1124
Upstream Blk Time (%)	22		
Queuing Penalty (veh)	56		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	532	230	23
Average Queue (ft)	367	77	2
95th Queue (ft)	650	174	13
Link Distance (ft)	521	455	652
Upstream Blk Time (%)	26		
Queuing Penalty (veh)	77		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	381
Average Queue (ft)	96
95th Queue (ft)	378
Link Distance (ft)	1296
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement	EB
Directions Served	T
Maximum Queue (ft)	582
Average Queue (ft)	207
95th Queue (ft)	692
Link Distance (ft)	898
Upstream Blk Time (%)	2
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 133

Alternative 1
Signalized Intersections

**2030 Opening Year
Signalized Capacity Results
AM Peak Hour**

HCM 6th Signalized Intersection Summary

51: Newark Rd (SR 3033) & SR 1 SB Ramps

06/26/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↑	↗	↘	↑
Traffic Volume (veh/h)	142	51	303	74	68	244
Future Volume (veh/h)	142	51	303	74	68	244
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1890	1816	1855	1841	1708	1666
Adj Flow Rate, veh/h	160	57	340	83	76	274
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	9	4	5	3	6
Cap, veh/h	229	82	878	739	588	1070
Arrive On Green	0.18	0.16	0.47	0.47	0.08	0.64
Sat Flow, veh/h	1280	456	1855	1560	1626	1666
Grp Volume(v), veh/h	218	0	340	83	76	274
Grp Sat Flow(s),veh/h/ln	1744	0	1855	1560	1626	1666
Q Serve(g_s), s	6.6	0.0	6.6	1.7	1.2	3.9
Cycle Q Clear(g_c), s	6.6	0.0	6.6	1.7	1.2	3.9
Prop In Lane	0.73	0.26		1.00	1.00	
Lane Grp Cap(c), veh/h	312	0	878	739	588	1070
V/C Ratio(X)	0.70	0.00	0.39	0.11	0.13	0.26
Avail Cap(c_a), veh/h	436	0	878	739	691	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	9.5	8.2	6.3	4.3
Incr Delay (d2), s/veh	2.8	0.0	1.3	0.3	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	2.3	0.5	0.3	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.5	0.0	10.8	8.5	6.4	4.9
LnGrp LOS	C	A	B	A	A	A
Approach Vol, veh/h	218		423			350
Approach Delay, s/veh	24.5		10.3			5.2
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.5	31.5			41.0	15.0
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	7.0	22.0			35.0	13.0
Max Q Clear Time (g_c+l1), s	3.7	9.1			6.4	9.1
Green Ext Time (p_c), s	0.0	1.2			0.9	0.3
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

52: Newark Rd (SR 3033) & SR 1 NB Ramps

06/26/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	174	275	131	203	346	33
Future Volume (veh/h)	174	275	131	203	346	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1890	1831	1803	1775	1641	1655
Adj Flow Rate, veh/h	202	320	152	236	402	38
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	4	8	5	7	5	4
Cap, veh/h	226	358	396	948	568	54
Arrive On Green	0.35	0.34	0.09	0.53	0.38	0.37
Sat Flow, veh/h	646	1024	1718	1775	1476	140
Grp Volume(v), veh/h	523	0	152	236	0	440
Grp Sat Flow(s),veh/h/ln	1674	0	1718	1775	0	1615
Q Serve(g_s), s	25.5	0.0	4.4	6.1	0.0	19.8
Cycle Q Clear(g_c), s	25.5	0.0	4.4	6.1	0.0	19.8
Prop In Lane	0.39	0.61	1.00			0.09
Lane Grp Cap(c), veh/h	585	0	396	948	0	621
V/C Ratio(X)	0.89	0.00	0.38	0.25	0.00	0.71
Avail Cap(c_a), veh/h	661	0	398	948	0	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.8	0.0	15.5	10.8	0.0	22.4
Incr Delay (d2), s/veh	13.6	0.0	0.6	0.6	0.0	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	0.0	1.6	2.3	0.0	8.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.4	0.0	16.1	11.4	0.0	29.1
LnGrp LOS	D	A	B	B	A	C
Approach Vol, veh/h	523			388	440	
Approach Delay, s/veh	40.4			13.3	29.1	
Approach LOS	D			B	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		51.0		35.1	12.9	38.1
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		45.0		33.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		8.6		28.0	6.9	21.8
Green Ext Time (p_c), s		0.8		1.1	0.0	1.2
Intersection Summary						
HCM 6th Ctrl Delay			28.9			
HCM 6th LOS			C			

**2030 Opening Year
Signalized Capacity Results
PM Peak Hour**

HCM 6th Signalized Intersection Summary
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

06/13/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	153	40	337	277	112	189
Future Volume (veh/h)	153	40	337	277	112	189
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1890	1950	1898	1883	1736	1722
Adj Flow Rate, veh/h	168	44	370	304	123	208
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	0	1	2	1	2
Cap, veh/h	231	60	1048	881	557	1200
Arrive On Green	0.17	0.15	0.55	0.55	0.08	0.70
Sat Flow, veh/h	1385	363	1898	1596	1653	1722
Grp Volume(v), veh/h	213	0	370	304	123	208
Grp Sat Flow(s),veh/h/ln	1756	0	1898	1596	1653	1722
Q Serve(g_s), s	8.4	0.0	7.9	7.7	2.2	3.0
Cycle Q Clear(g_c), s	8.4	0.0	7.9	7.7	2.2	3.0
Prop In Lane	0.79	0.21		1.00	1.00	
Lane Grp Cap(c), veh/h	292	0	1048	881	557	1200
V/C Ratio(X)	0.73	0.00	0.35	0.34	0.22	0.17
Avail Cap(c_a), veh/h	456	0	1048	881	611	1200
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	9.1	9.1	6.0	3.8
Incr Delay (d2), s/veh	3.5	0.0	0.9	1.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	2.9	2.4	0.6	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.5	0.0	10.1	10.1	6.2	4.1
LnGrp LOS	C	A	B	B	A	A
Approach Vol, veh/h	213		674			331
Approach Delay, s/veh	32.5		10.1			4.9
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.6	45.4			56.0	17.2
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	7.0	37.0			50.0	18.0
Max Q Clear Time (g_c+l1), s	4.7	10.4			5.5	10.9
Green Ext Time (p_c), s	0.1	2.6			0.7	0.4
Intersection Summary						
HCM 6th Ctrl Delay			12.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

52: Newark Rd (SR 3033) & SR 1 NB Ramps

06/13/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	86	170	183	528	313	30
Future Volume (veh/h)	86	170	183	528	313	30
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1950	1890	1846	1846	1655	1711
Adj Flow Rate, veh/h	90	177	191	550	326	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	4	2	2	4	0
Cap, veh/h	117	230	650	1208	709	67
Arrive On Green	0.20	0.19	0.11	0.65	0.48	0.46
Sat Flow, veh/h	576	1134	1758	1846	1488	141
Grp Volume(v), veh/h	268	0	191	550	0	357
Grp Sat Flow(s),veh/h/ln	1717	0	1758	1846	0	1629
Q Serve(g_s), s	10.4	0.0	3.6	10.3	0.0	10.3
Cycle Q Clear(g_c), s	10.4	0.0	3.6	10.3	0.0	10.3
Prop In Lane	0.34	0.66	1.00			0.09
Lane Grp Cap(c), veh/h	349	0	650	1208	0	776
V/C Ratio(X)	0.77	0.00	0.29	0.46	0.00	0.46
Avail Cap(c_a), veh/h	464	0	937	1208	0	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.8	0.0	7.7	6.0	0.0	12.4
Incr Delay (d2), s/veh	5.5	0.0	0.2	1.2	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	1.1	3.1	0.0	3.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.3	0.0	7.9	7.2	0.0	14.3
LnGrp LOS	C	A	A	A	A	B
Approach Vol, veh/h	268			741	357	
Approach Delay, s/veh	32.3			7.4	14.3	
Approach LOS	C			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		51.0		19.3	12.5	38.5
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		45.0		18.0	18.0	21.0
Max Q Clear Time (g_c+l1), s		12.8		12.9	6.1	12.3
Green Ext Time (p_c), s		2.1		0.5	0.5	0.8
Intersection Summary						
HCM 6th Ctrl Delay			14.1			
HCM 6th LOS			B			

**2030 Opening Year
Signalized Queuing Results
AM Peak Hour**

Queuing and Blocking Report
No Build

06/26/2023

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	R	L	T
Maximum Queue (ft)	183	151	91	103	109
Average Queue (ft)	87	59	18	26	41
95th Queue (ft)	153	114	55	63	89
Link Distance (ft)	459	651			1122
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)		1		0	0
Queuing Penalty (veh)		1		0	0

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	360	133	154	274
Average Queue (ft)	194	59	61	141
95th Queue (ft)	327	107	124	236
Link Distance (ft)	516		456	651
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		125		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		0	1	

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 2

**2030 Opening Year
Signalized Queuing Results
PM Peak Hour**

Queuing and Blocking Report
No Build

06/26/2023

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	R	L	T
Maximum Queue (ft)	196	174	150	89	104
Average Queue (ft)	100	77	51	41	36
95th Queue (ft)	166	140	109	73	78
Link Distance (ft)	459	651			1122
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)		3	0	0	0
Queuing Penalty (veh)		9	0	0	0

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	190	142	196	227
Average Queue (ft)	93	61	85	97
95th Queue (ft)	159	113	157	187
Link Distance (ft)	516		456	651
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		125		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		1	2	

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement

- Directions Served
- Maximum Queue (ft)
- Average Queue (ft)
- 95th Queue (ft)
- Link Distance (ft)
- Upstream Blk Time (%)
- Queuing Penalty (veh)
- Storage Bay Dist (ft)
- Storage Blk Time (%)
- Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 14

**2050 Design Year
Signalized Capacity Results
AM Peak Hour**

HCM 6th Signalized Intersection Summary
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

06/08/2023

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	152	59	352	83	79	269
Future Volume (veh/h)	152	59	352	83	79	269
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1890	1816	1855	1841	1708	1666
Adj Flow Rate, veh/h	171	66	396	93	89	302
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	9	4	5	3	6
Cap, veh/h	238	92	856	720	539	1055
Arrive On Green	0.19	0.17	0.46	0.46	0.08	0.63
Sat Flow, veh/h	1251	483	1855	1560	1626	1666
Grp Volume(v), veh/h	238	0	396	93	89	302
Grp Sat Flow(s),veh/h/ln	1741	0	1855	1560	1626	1666
Q Serve(g_s), s	7.3	0.0	8.3	1.9	1.5	4.6
Cycle Q Clear(g_c), s	7.3	0.0	8.3	1.9	1.5	4.6
Prop In Lane	0.72	0.28		1.00	1.00	
Lane Grp Cap(c), veh/h	331	0	856	720	539	1055
V/C Ratio(X)	0.72	0.00	0.46	0.13	0.17	0.29
Avail Cap(c_a), veh/h	429	0	856	720	632	1055
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	10.5	8.8	6.9	4.7
Incr Delay (d2), s/veh	4.0	0.0	1.8	0.4	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	3.0	0.6	0.4	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	0.0	12.3	9.1	7.0	5.3
LnGrp LOS	C	A	B	A	A	A
Approach Vol, veh/h	238		489			391
Approach Delay, s/veh	25.8		11.7			5.7
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.8	31.2			41.0	15.8
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	7.0	22.0			35.0	13.0
Max Q Clear Time (g_c+l1), s	4.0	10.8			7.1	9.8
Green Ext Time (p_c), s	0.1	1.4			1.0	0.3
Intersection Summary						
HCM 6th Ctrl Delay			12.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 52: Newark Rd (SR 3033) & SR 1 NB Ramps

06/08/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	203	304	151	232	375	46
Future Volume (veh/h)	203	304	151	232	375	46
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1890	1831	1803	1775	1641	1655
Adj Flow Rate, veh/h	236	353	176	270	436	53
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	4	8	5	7	5	4
Cap, veh/h	253	379	321	908	526	64
Arrive On Green	0.38	0.37	0.09	0.51	0.37	0.36
Sat Flow, veh/h	671	1003	1718	1775	1435	174
Grp Volume(v), veh/h	590	0	176	270	0	489
Grp Sat Flow(s),veh/h/ln	1676	0	1718	1775	0	1609
Q Serve(g_s), s	30.4	0.0	5.6	7.9	0.0	24.9
Cycle Q Clear(g_c), s	30.4	0.0	5.6	7.9	0.0	24.9
Prop In Lane	0.40	0.60	1.00			0.11
Lane Grp Cap(c), veh/h	633	0	321	908	0	590
V/C Ratio(X)	0.93	0.00	0.55	0.30	0.00	0.83
Avail Cap(c_a), veh/h	634	0	321	908	0	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	18.9	12.7	0.0	26.0
Incr Delay (d2), s/veh	20.8	0.0	2.0	0.8	0.0	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	0.0	2.2	3.0	0.0	10.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.0	0.0	20.9	13.5	0.0	38.6
LnGrp LOS	D	A	C	B	A	D
Approach Vol, veh/h	590			446	489	
Approach Delay, s/veh	48.0			16.4	38.6	
Approach LOS	D			B	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		51.0		39.0	13.0	38.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		45.0		33.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		10.4		32.9	8.1	26.9
Green Ext Time (p_c), s		0.9		0.0	0.0	0.9

Intersection Summary

HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

**2050 Design Year
Signalized Capacity Results
PM Peak Hour**

HCM 6th Signalized Intersection Summary

51: Newark Rd (SR 3033) & SR 1 SB Ramps

06/13/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶		↑	↷	↶	↑
Traffic Volume (veh/h)	177	47	376	304	130	218
Future Volume (veh/h)	177	47	376	304	130	218
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1890	1950	1898	1883	1736	1722
Adj Flow Rate, veh/h	195	52	413	334	143	240
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	0	1	2	1	2
Cap, veh/h	258	69	1003	844	510	1167
Arrive On Green	0.19	0.17	0.53	0.53	0.08	0.68
Sat Flow, veh/h	1380	368	1898	1596	1653	1722
Grp Volume(v), veh/h	248	0	413	334	143	240
Grp Sat Flow(s),veh/h/ln	1755	0	1898	1596	1653	1722
Q Serve(g_s), s	9.9	0.0	9.7	9.2	2.7	3.9
Cycle Q Clear(g_c), s	9.9	0.0	9.7	9.2	2.7	3.9
Prop In Lane	0.79	0.21		1.00	1.00	
Lane Grp Cap(c), veh/h	328	0	1003	844	510	1167
V/C Ratio(X)	0.76	0.00	0.41	0.40	0.28	0.21
Avail Cap(c_a), veh/h	476	0	1003	844	555	1167
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	0.0	10.5	10.4	6.9	4.5
Incr Delay (d2), s/veh	4.1	0.0	0.3	0.3	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	3.4	2.7	0.8	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.6	0.0	10.8	10.7	7.2	4.9
LnGrp LOS	C	A	B	B	A	A
Approach Vol, veh/h	248		747			383
Approach Delay, s/veh	32.6		10.7			5.7
Approach LOS	C		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.0	44.0			55.0	18.8
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	7.0	36.0			49.0	19.0
Max Q Clear Time (g_c+l1), s	5.2	12.2			6.4	12.4
Green Ext Time (p_c), s	0.1	2.9			0.8	0.5

Intersection Summary

HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

52: Newark Rd (SR 3033) & SR 1 NB Ramps

06/13/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	100	195	199	579	360	35
Future Volume (veh/h)	100	195	199	579	360	35
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1950	1890	1846	1846	1655	1711
Adj Flow Rate, veh/h	104	203	207	603	375	36
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	4	2	2	4	0
Cap, veh/h	130	253	581	1177	677	65
Arrive On Green	0.22	0.21	0.11	0.64	0.46	0.44
Sat Flow, veh/h	580	1132	1758	1846	1486	143
Grp Volume(v), veh/h	308	0	207	603	0	411
Grp Sat Flow(s),veh/h/ln	1717	0	1758	1846	0	1629
Q Serve(g_s), s	12.3	0.0	4.2	12.7	0.0	13.3
Cycle Q Clear(g_c), s	12.3	0.0	4.2	12.7	0.0	13.3
Prop In Lane	0.34	0.66	1.00			0.09
Lane Grp Cap(c), veh/h	384	0	581	1177	0	742
V/C Ratio(X)	0.80	0.00	0.36	0.51	0.00	0.55
Avail Cap(c_a), veh/h	452	0	846	1177	0	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.8	0.0	9.0	7.0	0.0	14.3
Incr Delay (d2), s/veh	8.7	0.0	0.4	1.6	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	1.3	4.0	0.0	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.5	0.0	9.4	8.6	0.0	17.3
LnGrp LOS	D	A	A	A	A	B
Approach Vol, veh/h	308			810	411	
Approach Delay, s/veh	35.5			8.8	17.3	
Approach LOS	D			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		51.0		21.1	13.1	37.9
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		45.0		18.0	18.0	21.0
Max Q Clear Time (g_c+l1), s		15.2		14.8	6.7	15.3
Green Ext Time (p_c), s		2.4		0.4	0.5	0.8
Intersection Summary						
HCM 6th Ctrl Delay			16.5			
HCM 6th LOS			B			

**2050 Design Year
Signalized Queuing Results
AM Peak Hour**

Queuing and Blocking Report
No Build

06/26/2023

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	R	L	T
Maximum Queue (ft)	183	190	148	70	114
Average Queue (ft)	98	80	31	30	45
95th Queue (ft)	165	157	90	60	94
Link Distance (ft)	459	651			1122
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)		4		0	0
Queuing Penalty (veh)		3		0	0

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	465	148	199	332
Average Queue (ft)	235	68	74	169
95th Queue (ft)	397	124	142	286
Link Distance (ft)	516		456	651
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	3			
Storage Bay Dist (ft)		125		
Storage Blk Time (%)		1	1	
Queuing Penalty (veh)		3	2	

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report

No Build

06/26/2023

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement	EB
Directions Served	T
Maximum Queue (ft)	50
Average Queue (ft)	3
95th Queue (ft)	37
Link Distance (ft)	898
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 12

**2050 Design Year
Signalized Queuing Results
PM Peak Hour**

Queuing and Blocking Report
No Build

06/26/2023

Intersection: 51: Newark Rd (SR 3033) & SR 1 SB Ramps

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	R	L	T
Maximum Queue (ft)	231	385	150	86	107
Average Queue (ft)	120	105	70	48	41
95th Queue (ft)	200	238	148	86	90
Link Distance (ft)	459	651			1122
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)		7	1	0	0
Queuing Penalty (veh)		21	2	1	0

Intersection: 52: Newark Rd (SR 3033) & SR 1 NB Ramps

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	219	149	256	246
Average Queue (ft)	122	69	104	109
95th Queue (ft)	203	128	197	205
Link Distance (ft)	516		456	651
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		125		
Storage Blk Time (%)		0	3	
Queuing Penalty (veh)		2	5	

Intersection: 53: SR 1 SB ON Ramp & SR 1 SB Ramps/SR 1 SB OFF Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: SR 1 NB OFF Ramp/SR 1 NB Ramps & SR 1 NB ON Ramp

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 32

Alternative 2
Roundabout Intersections

**2030 Opening Year
Roundabout Results
AM Peak Hour**

HCM 6th Roundabout
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

11/16/2022

Intersection			
Intersection Delay, s/veh	6.3		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	217	423	350
Demand Flow Rate, veh/h	228	441	368
Vehicles Circulating, veh/h	354	78	166
Vehicles Exiting, veh/h	165	456	416
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.3	6.2	6.3
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	228	441	368
Cap Entry Lane, veh/h	962	1274	1165
Entry HV Adj Factor	0.952	0.960	0.950
Flow Entry, veh/h	217	423	350
Cap Entry, veh/h	915	1223	1107
V/C Ratio	0.237	0.346	0.316
Control Delay, s/veh	6.3	6.2	6.3
LOS	A	A	A
95th %tile Queue, veh	1	2	1

HCM 6th Roundabout
52: Newark Rd (SR 3033) & SR 1 NB Ramps

11/16/2022

Intersection			
Intersection Delay, s/veh	9.9		
Intersection LOS	A		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	522	388	440
Demand Flow Rate, veh/h	556	413	462
Vehicles Circulating, veh/h	422	210	160
Vehicles Exiting, veh/h	200	768	463
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	14.1	7.3	7.3
Approach LOS	B	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	556	413	462
Cap Entry Lane, veh/h	897	1114	1172
Entry HV Adj Factor	0.939	0.941	0.952
Flow Entry, veh/h	522	388	440
Cap Entry, veh/h	842	1048	1116
V/C Ratio	0.620	0.371	0.394
Control Delay, s/veh	14.1	7.3	7.3
LOS	B	A	A
95th %tile Queue, veh	4	2	2

**2030 Opening Year
Roundabout Results
PM Peak Hour**

HCM 6th Roundabout
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

11/16/2022

Intersection			
Intersection Delay, s/veh	8.0		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	212	674	331
Demand Flow Rate, veh/h	219	684	336
Vehicles Circulating, veh/h	374	124	175
Vehicles Exiting, veh/h	434	387	418
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.3	9.6	5.9
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	219	684	336
Cap Entry Lane, veh/h	942	1216	1154
Entry HV Adj Factor	0.968	0.986	0.985
Flow Entry, veh/h	212	674	331
Cap Entry, veh/h	912	1199	1137
V/C Ratio	0.232	0.563	0.291
Control Delay, s/veh	6.3	9.6	5.9
LOS	A	A	A
95th %tile Queue, veh	1	4	1

HCM 6th Roundabout
 52: Newark Rd (SR 3033) & SR 1 NB Ramps

11/16/2022

Intersection			
Intersection Delay, s/veh	8.5		
Intersection LOS	A		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	267	741	357
Demand Flow Rate, veh/h	274	756	370
Vehicles Circulating, veh/h	339	90	195
Vehicles Exiting, veh/h	226	523	651
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.7	10.2	6.5
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	274	756	370
Cap Entry Lane, veh/h	977	1259	1131
Entry HV Adj Factor	0.974	0.980	0.965
Flow Entry, veh/h	267	741	357
Cap Entry, veh/h	952	1234	1091
V/C Ratio	0.281	0.601	0.327
Control Delay, s/veh	6.7	10.2	6.5
LOS	A	B	A
95th %tile Queue, veh	1	4	1

**2050 Design Year
Roundabout Results
AM Peak Hour**

HCM 6th Roundabout
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

11/16/2022

Intersection			
Intersection Delay, s/veh	7.0		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	237	489	391
Demand Flow Rate, veh/h	250	510	412
Vehicles Circulating, veh/h	412	92	178
Vehicles Exiting, veh/h	190	498	484
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.2	7.0	6.9
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	250	510	412
Cap Entry Lane, veh/h	906	1256	1151
Entry HV Adj Factor	0.948	0.959	0.949
Flow Entry, veh/h	237	489	391
Cap Entry, veh/h	859	1205	1092
V/C Ratio	0.276	0.406	0.358
Control Delay, s/veh	7.2	7.0	6.9
LOS	A	A	A
95th %tile Queue, veh	1	2	2

HCM 6th Roundabout
52: Newark Rd (SR 3033) & SR 1 NB Ramps

11/16/2022

Intersection			
Intersection Delay, s/veh	12.4		
Intersection LOS	B		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	589	446	489
Demand Flow Rate, veh/h	626	474	513
Vehicles Circulating, veh/h	458	245	185
Vehicles Exiting, veh/h	240	839	534
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	18.7	8.5	8.2
Approach LOS	C	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	626	474	513
Cap Entry Lane, veh/h	865	1075	1143
Entry HV Adj Factor	0.941	0.941	0.954
Flow Entry, veh/h	589	446	489
Cap Entry, veh/h	814	1011	1090
V/C Ratio	0.724	0.441	0.449
Control Delay, s/veh	18.7	8.5	8.2
LOS	C	A	A
95th %tile Queue, veh	6	2	2

**2050 Design Year
Roundabout Results
PM Peak Hour**

HCM 6th Roundabout
 51: Newark Rd (SR 3033) & SR 1 SB Ramps

11/16/2022

Intersection			
Intersection Delay, s/veh	9.4		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	247	747	383
Demand Flow Rate, veh/h	255	758	389
Vehicles Circulating, veh/h	417	144	203
Vehicles Exiting, veh/h	485	448	469
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.2	11.4	6.7
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	255	758	389
Cap Entry Lane, veh/h	902	1191	1122
Entry HV Adj Factor	0.969	0.985	0.985
Flow Entry, veh/h	247	747	383
Cap Entry, veh/h	874	1174	1105
V/C Ratio	0.283	0.636	0.347
Control Delay, s/veh	7.2	11.4	6.7
LOS	A	B	A
95th %tile Queue, veh	1	5	2

HCM 6th Roundabout
 52: Newark Rd (SR 3033) & SR 1 NB Ramps

11/16/2022

Intersection			
Intersection Delay, s/veh	9.9		
Intersection LOS	A		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	307	810	411
Demand Flow Rate, veh/h	315	826	426
Vehicles Circulating, veh/h	390	104	211
Vehicles Exiting, veh/h	247	601	719
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.7	12.0	7.3
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	315	826	426
Cap Entry Lane, veh/h	927	1241	1113
Entry HV Adj Factor	0.975	0.981	0.965
Flow Entry, veh/h	307	810	411
Cap Entry, veh/h	903	1217	1074
V/C Ratio	0.340	0.666	0.383
Control Delay, s/veh	7.7	12.0	7.3
LOS	A	B	A
95th %tile Queue, veh	2	5	2

HCS Delay and LOS

HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/14/2022
Agency	AECOM	Analysis Year	2022
Jurisdiction	PennDOT D-6	Time Analyzed	AM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	NB_10 SR 1 NB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.85	0.869	2953	4600	0.64	60.0	24.6	C

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.85	0.72	0.869	0.721	2953	607	4600	2000	0.64	0.30	51.3	51.3	28.8	29.6	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.901	2353	4600	0.51	59.2	19.6	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.86	0.901	0.800	2527	174	4600	2000	0.55	0.09	53.3	53.3	23.7	25.2	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.894	2496	4600	0.54	60.0	20.8	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.84	0.894	0.824	2496	688	4600	2000	0.54	0.34	51.2	51.2	24.4	25.7	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.918	1891	4600	0.41	59.6	15.8	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.85	0.918	0.803	2095	204	4600	2000	0.46	0.10	53.6	53.6	19.5	21.8	C

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.908	2064	4600	0.45	60.0	17.2	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.95	0.908	0.807	2719	655	4600	2000	0.59	0.33	53.2	53.2	25.6	26.5	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3138	2712	1.80	58.0	21.1	18.9	5.90	C

Facility Overall Results

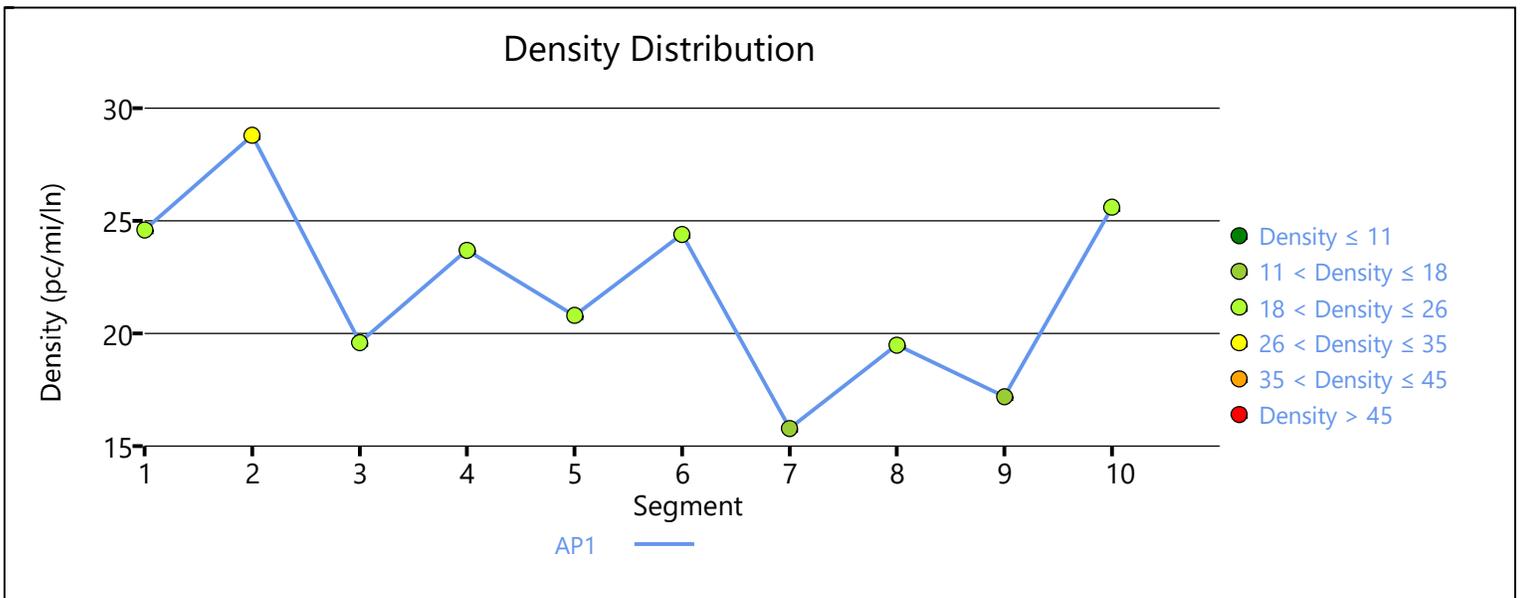
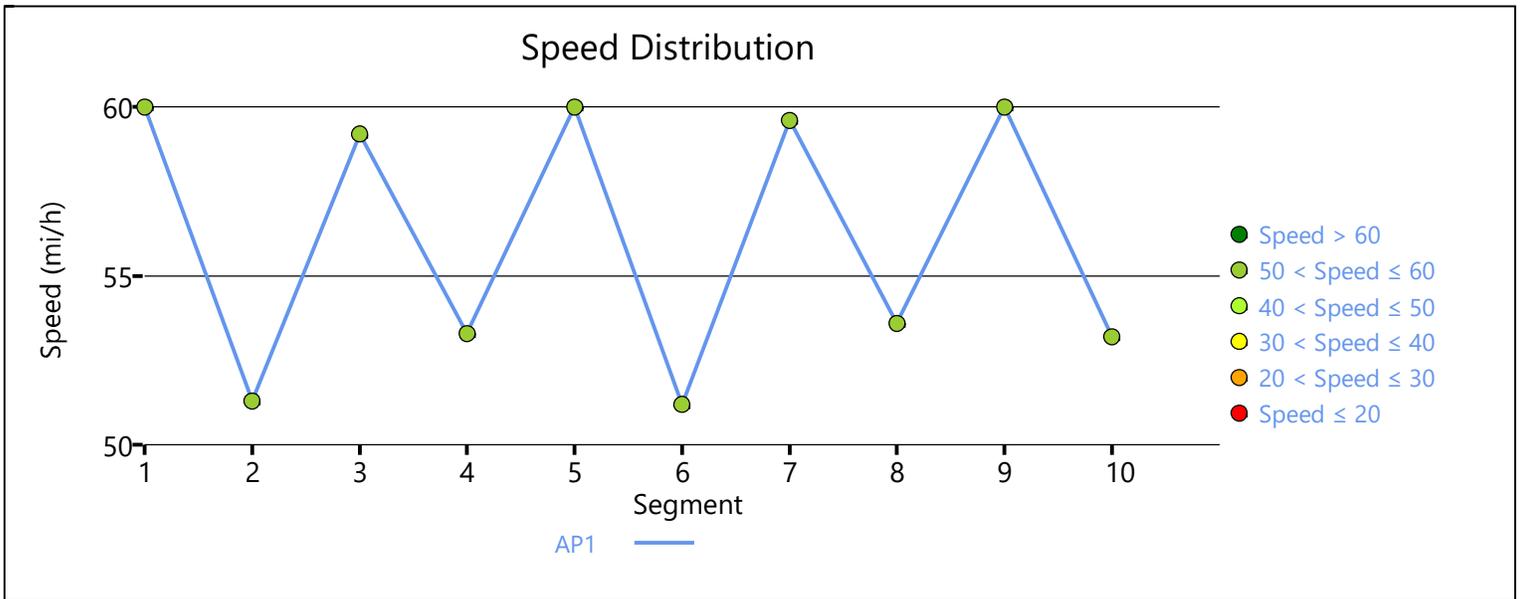
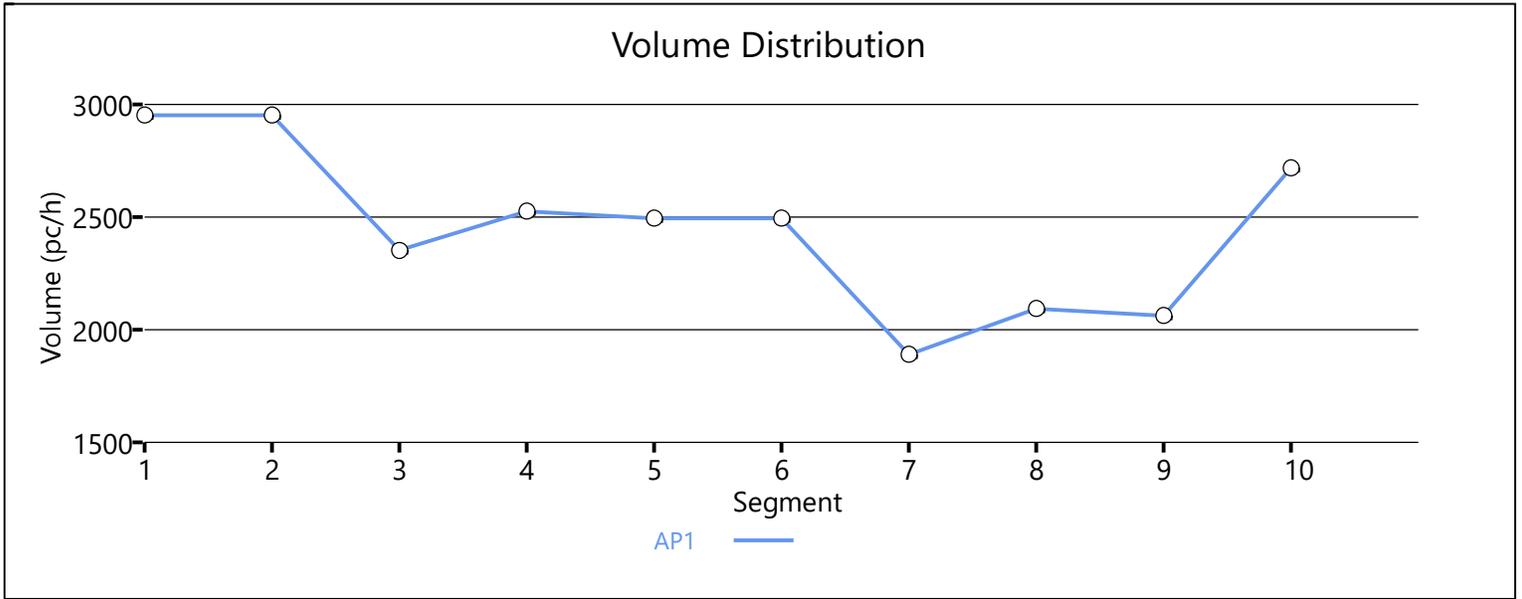
Space Mean Speed, mi/h	58.0	Density, veh/mi/ln	18.9
Average Travel Time, min	5.90	Density, pc/mi/ln	21.1

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2022
Jurisdiction	PennDOT D-6	Time Analyzed	PM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	NB_10 SR 1 NB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.891	1404	4600	0.31	60.0	11.7	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.86	0.891	0.747	1404	230	4600	2000	0.31	0.12	51.9	51.9	13.5	16.3	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.917	1230	4600	0.27	59.2	10.2	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.78	0.917	0.839	1421	191	4600	2000	0.31	0.10	53.9	53.9	13.2	16.5	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.908	1411	4600	0.31	60.0	11.8	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.91	0.908	0.832	1411	431	4600	2000	0.31	0.22	51.6	51.6	13.7	16.4	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.942	1005	4600	0.22	59.6	8.4	A

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.85	0.942	0.861	1209	204	4600	2000	0.26	0.10	54.0	54.0	11.2	14.9	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.929	1152	4600	0.25	60.0	9.6	A

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.91	0.929	0.929	2018	866	4600	2000	0.44	0.43	53.7	53.7	18.8	20.9	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1742	1518	0.95	58.1	11.5	10.5	5.90	B

Facility Overall Results

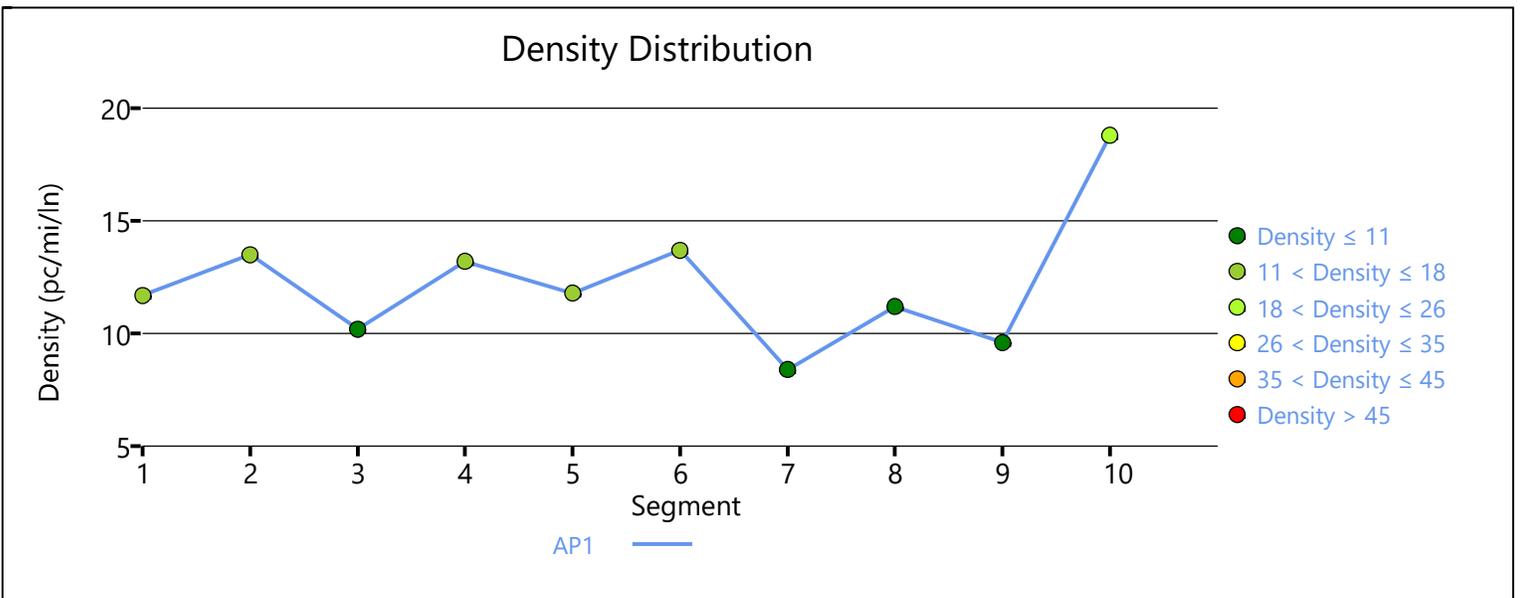
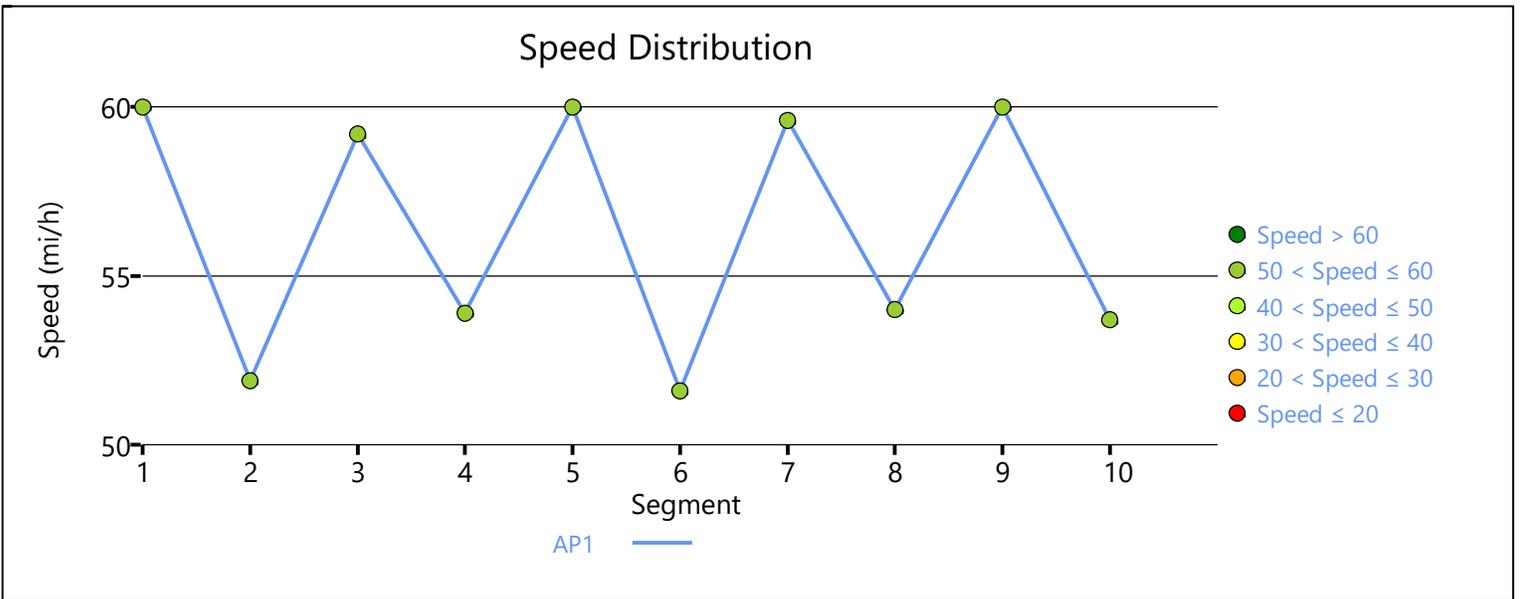
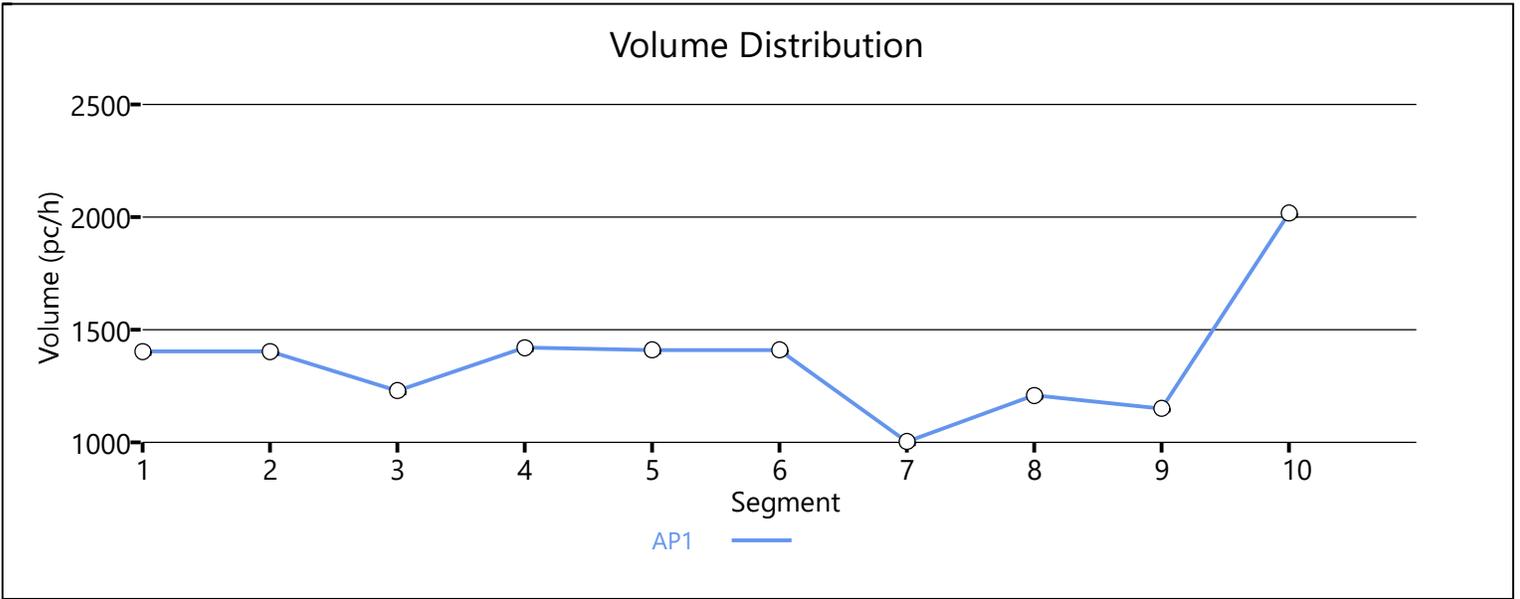
Space Mean Speed, mi/h	58.1	Density, veh/mi/ln	10.5
Average Travel Time, min	5.90	Density, pc/mi/ln	11.5

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2030
Jurisdiction	PennDOT D-6	Time Analyzed	AM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	EB_10 SR 1 EB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.85	0.869	3280	4600	0.71	60.0	27.3	D

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.85	0.72	0.869	0.721	3280	842	4600	2000	0.71	0.42	50.9	50.9	32.2	32.5	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.901	2505	4600	0.54	59.1	20.9	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.86	0.901	0.800	2707	202	4600	2000	0.59	0.10	53.2	53.2	25.4	26.6	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.894	2671	4600	0.58	60.0	22.3	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.84	0.894	0.824	2671	732	4600	2000	0.58	0.37	51.1	51.1	26.1	27.2	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.918	2026	4600	0.44	59.6	16.9	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.85	0.918	0.803	2247	221	4600	2000	0.49	0.11	53.6	53.6	21.0	23.0	C

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.908	2214	4600	0.48	60.0	18.4	C

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.95	0.908	0.807	2997	783	4600	2000	0.65	0.39	52.8	52.8	28.4	28.6	D

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3392	2927	2.01	57.9	22.9	20.4	5.90	C

Facility Overall Results

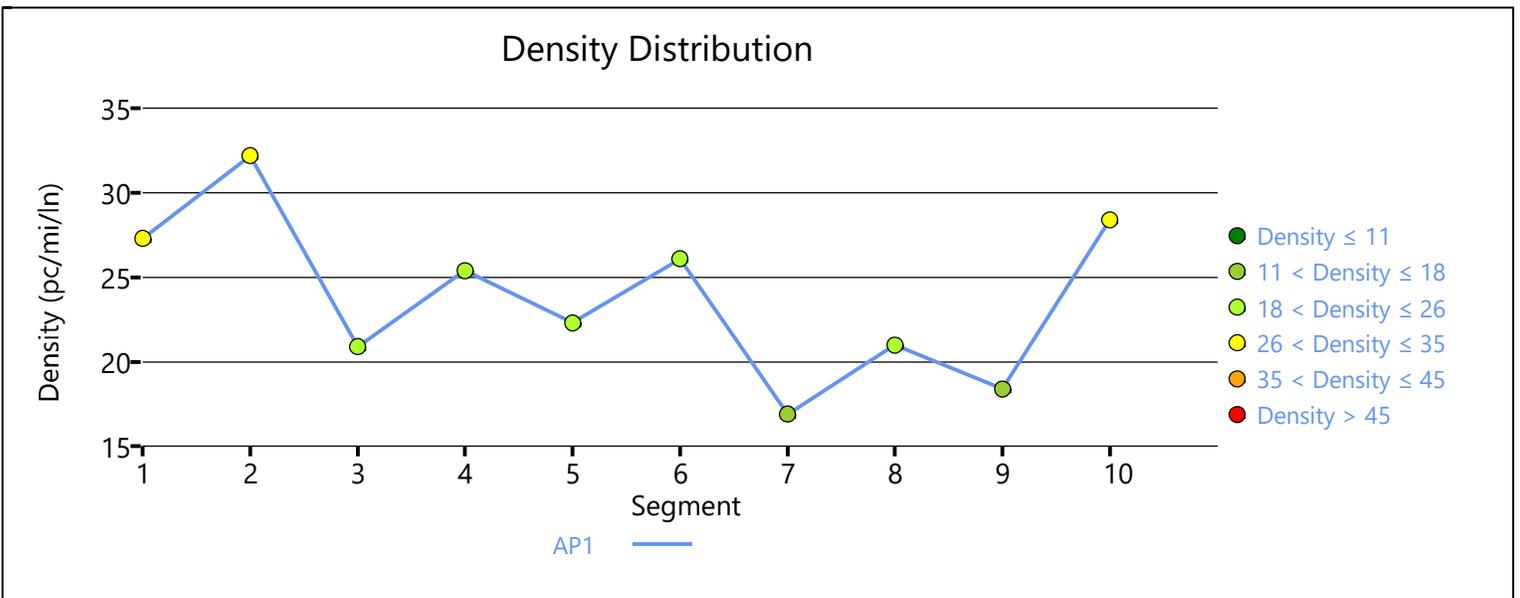
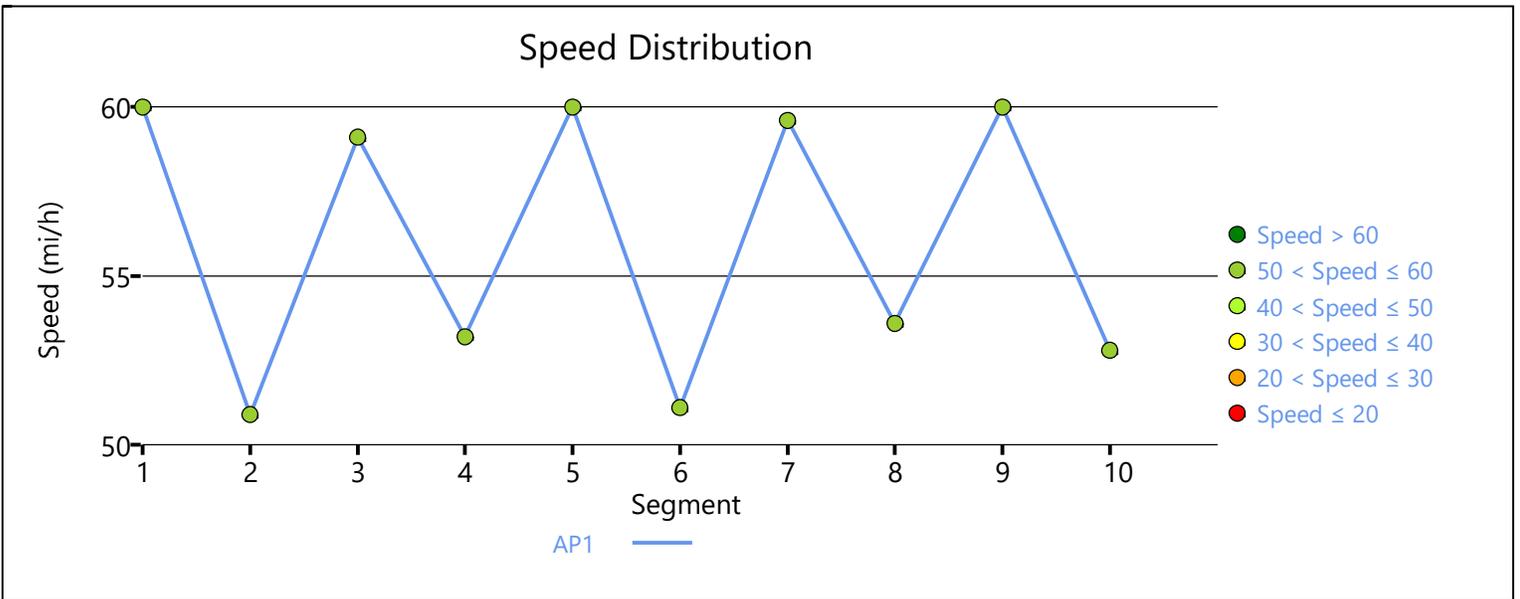
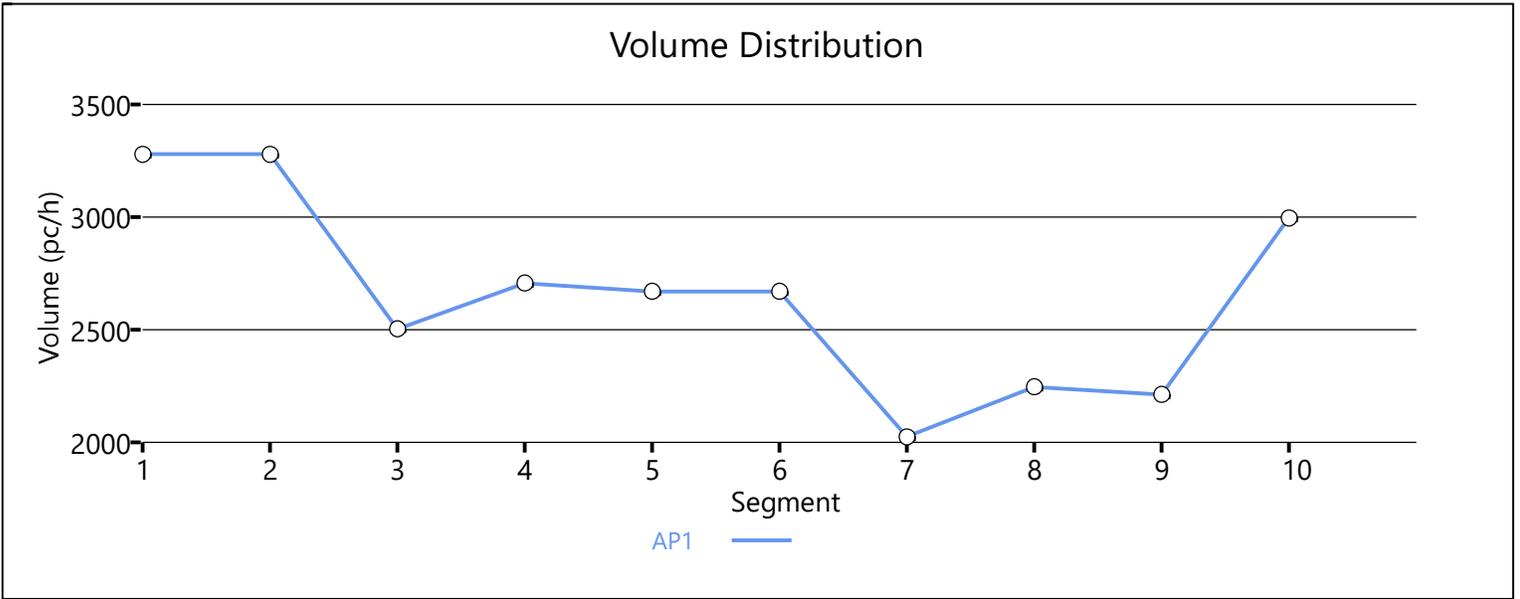
Space Mean Speed, mi/h	57.9	Density, veh/mi/ln	20.4
Average Travel Time, min	5.90	Density, pc/mi/ln	22.9

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2030
Jurisdiction	PennDOT D-6	Time Analyzed	PM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	EB_10 SR 1 EB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.891	1517	4600	0.33	60.0	12.6	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.86	0.891	0.747	1517	272	4600	2000	0.33	0.14	51.9	51.9	14.6	17.3	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.917	1311	4600	0.29	59.2	10.9	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.78	0.917	0.839	1649	338	4600	2000	0.36	0.17	53.9	53.9	15.3	18.3	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.908	1612	4600	0.35	60.0	13.4	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.91	0.908	0.832	1612	462	4600	2000	0.35	0.23	51.5	51.5	15.7	18.1	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.942	1176	4600	0.26	59.6	9.8	A

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.85	0.942	0.861	1396	220	4600	2000	0.30	0.11	53.9	53.9	12.9	16.3	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.929	1332	4600	0.29	60.0	11.1	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.91	0.929	0.929	2307	975	4600	2000	0.50	0.49	53.5	53.5	21.6	23.1	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1972	1711	1.08	58.1	13.0	11.8	5.90	B

Facility Overall Results

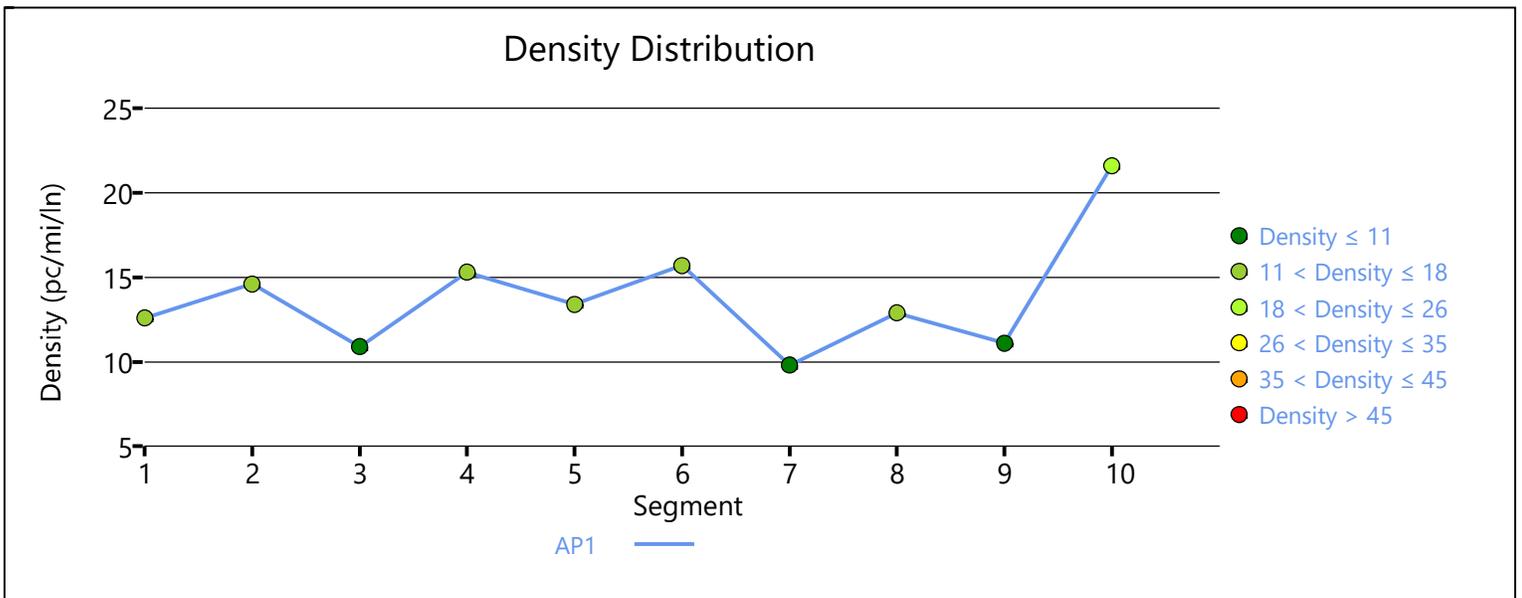
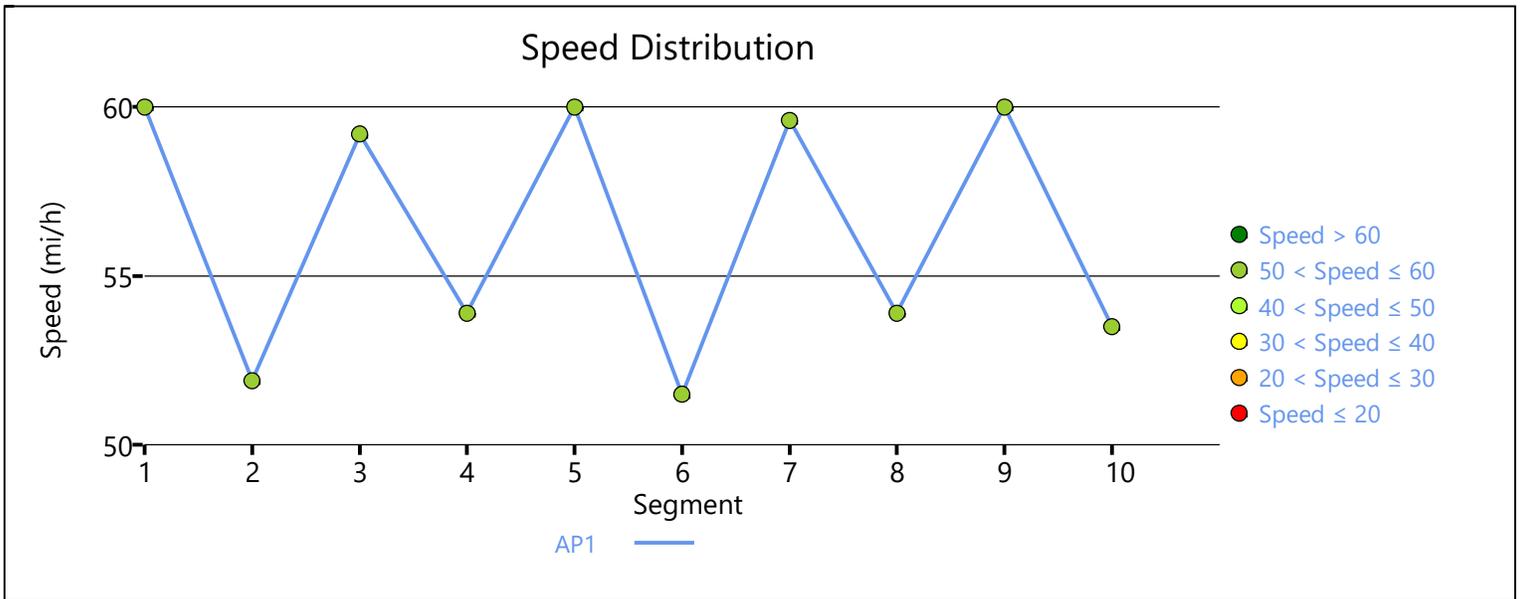
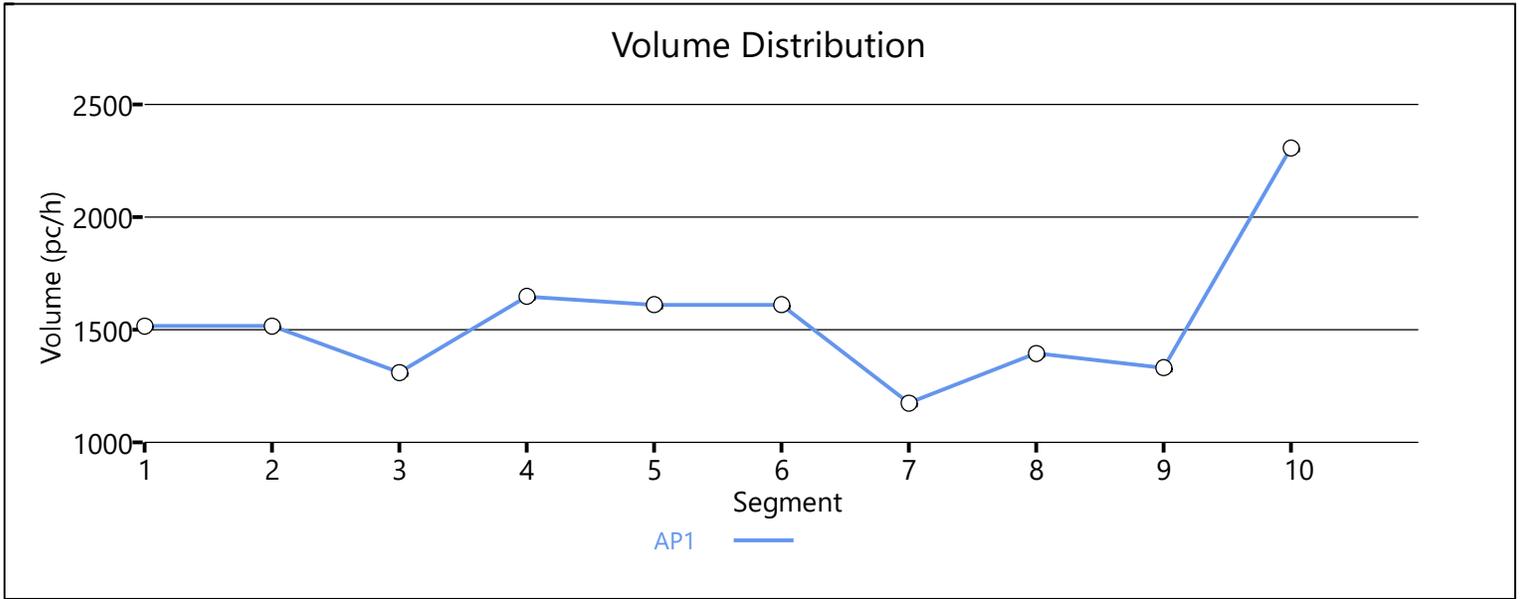
Space Mean Speed, mi/h	58.1	Density, veh/mi/ln	11.8
Average Travel Time, min	5.90	Density, pc/mi/ln	13.0

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2050
Jurisdiction	PennDOT D-6	Time Analyzed	AM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	EB_10 SR 1 EB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.85	0.869	3802	4600	0.83	58.4	32.6	D

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.85	0.72	0.869	0.721	3802	948	4600	2000	0.83	0.47	50.8	50.8	37.4	36.9	E

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.901	2921	4600	0.64	59.1	24.3	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.86	0.901	0.800	3152	231	4600	2000	0.69	0.12	52.6	52.6	30.0	30.0	D

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.894	3111	4600	0.68	60.0	25.9	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.84	0.894	0.824	3111	854	4600	2000	0.68	0.43	50.9	50.9	30.6	31.0	D

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.918	2359	4600	0.51	59.6	19.7	C

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.85	0.918	0.803	2615	256	4600	2000	0.57	0.13	53.3	53.3	24.5	25.8	C

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.908	2577	4600	0.56	60.0	21.5	C

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.95	0.908	0.807	3476	899	4600	2000	0.76	0.45	52.0	52.0	33.4	32.2	D

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3945	3405	2.78	57.6	26.8	23.9	6.00	D

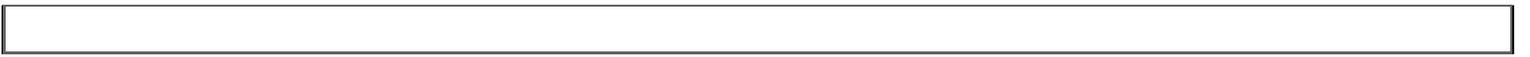
Facility Overall Results

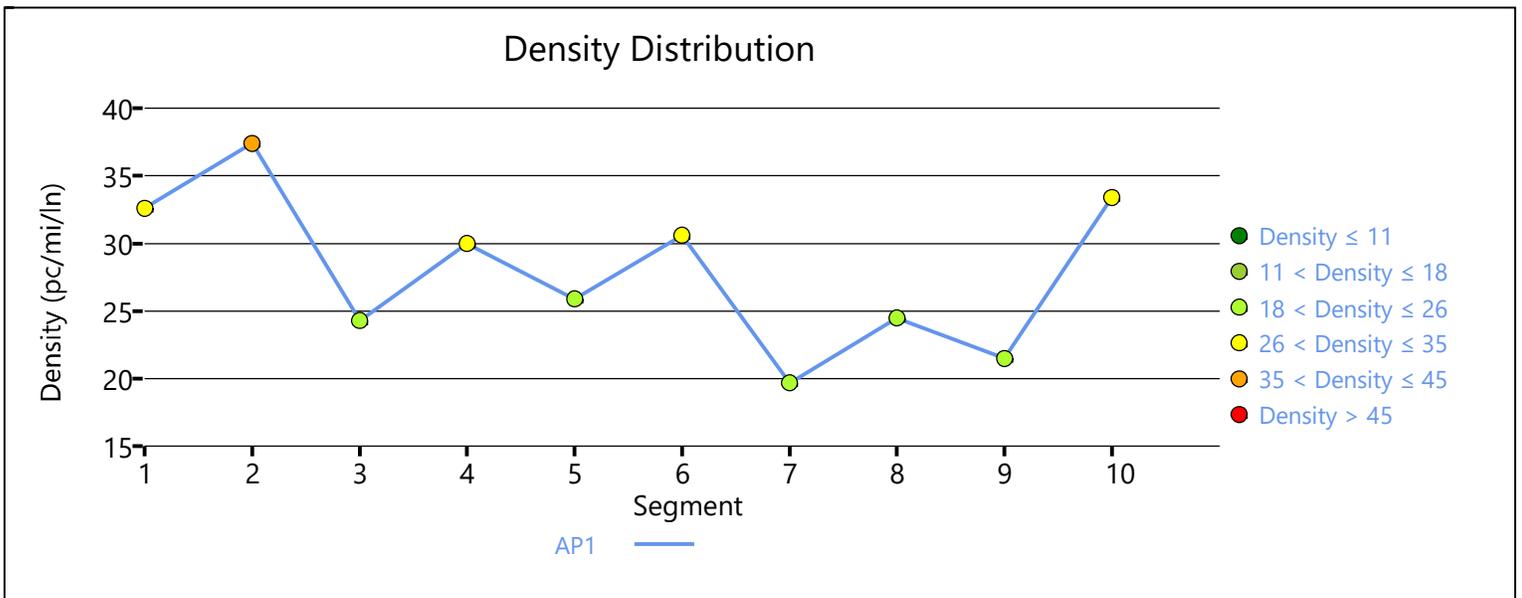
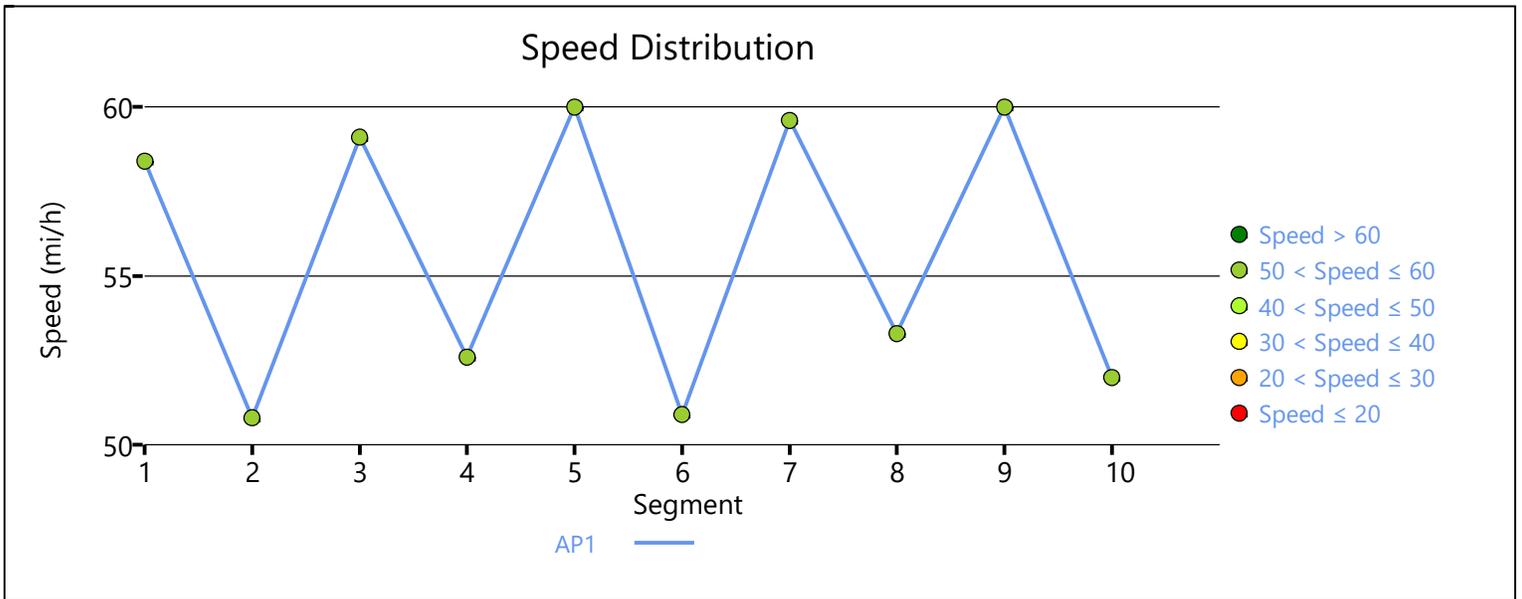
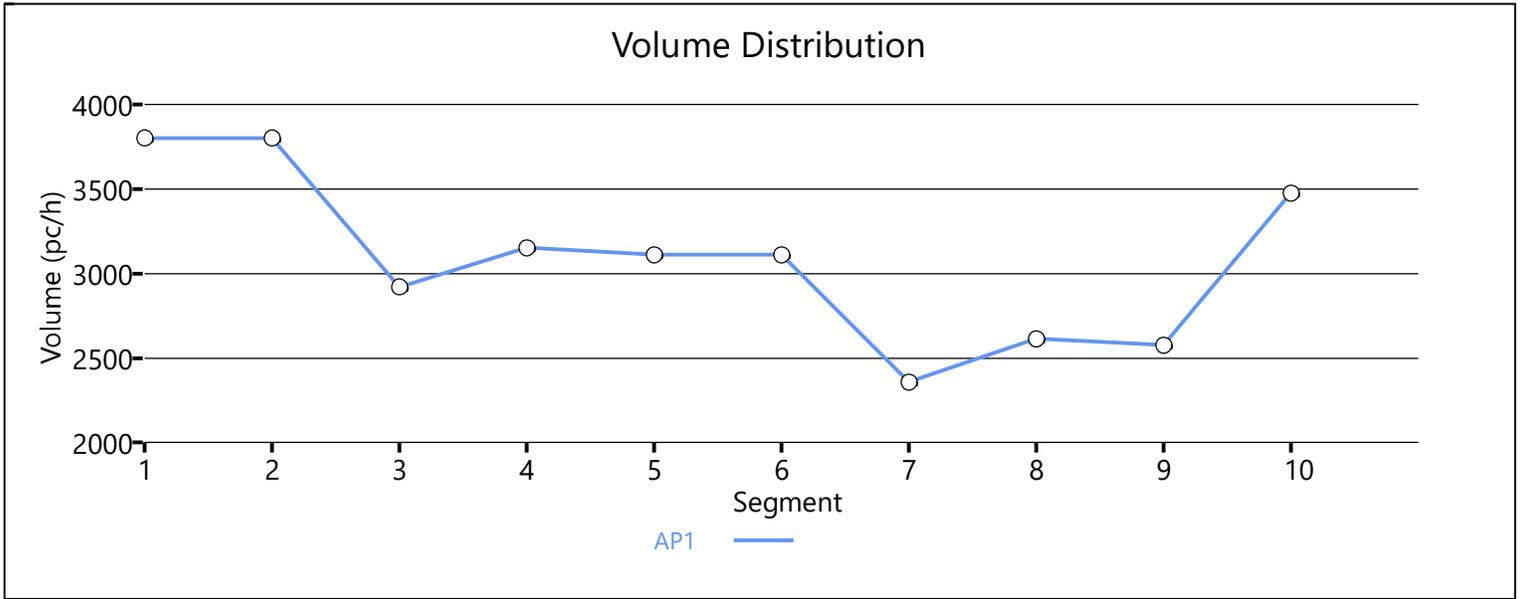
Space Mean Speed, mi/h	57.6	Density, veh/mi/ln	23.9
Average Travel Time, min	6.00	Density, pc/mi/ln	26.8

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2050
Jurisdiction	PennDOT D-6	Time Analyzed	PM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	EB_10 SR 1 EB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.891	1764	4600	0.38	60.0	14.7	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.86	0.891	0.747	1764	311	4600	2000	0.38	0.16	51.8	51.8	17.0	19.4	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.917	1529	4600	0.33	59.2	12.7	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.78	0.917	0.839	1899	370	4600	2000	0.41	0.18	53.8	53.8	17.6	20.2	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.908	1861	4600	0.40	60.0	15.5	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.91	0.908	0.832	1861	539	4600	2000	0.40	0.27	51.4	51.4	18.1	20.3	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.942	1353	4600	0.29	59.6	11.3	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.85	0.942	0.861	1610	257	4600	2000	0.35	0.13	53.9	53.9	14.9	18.0	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.929	1536	4600	0.33	60.0	12.8	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.91	0.929	0.929	2662	1126	4600	2000	0.58	0.56	53.2	53.2	25.0	25.8	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	2279	1979	1.27	58.1	15.0	13.7	5.90	B

Facility Overall Results

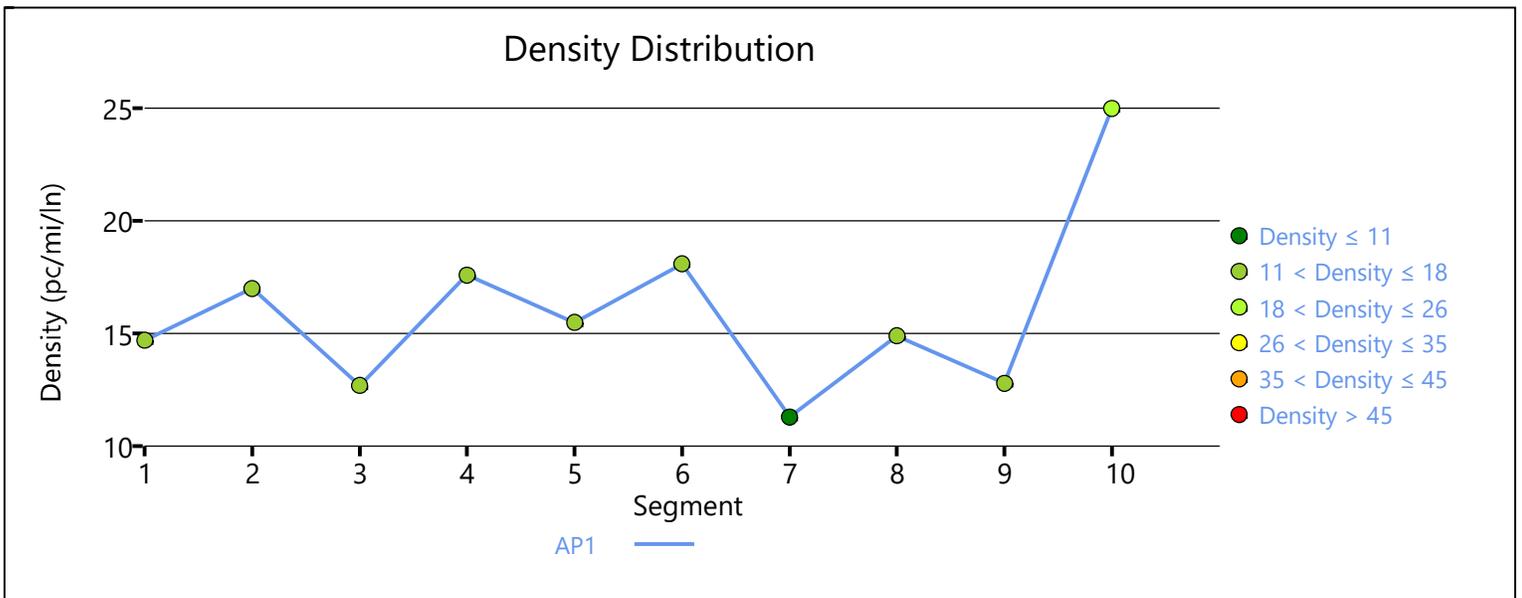
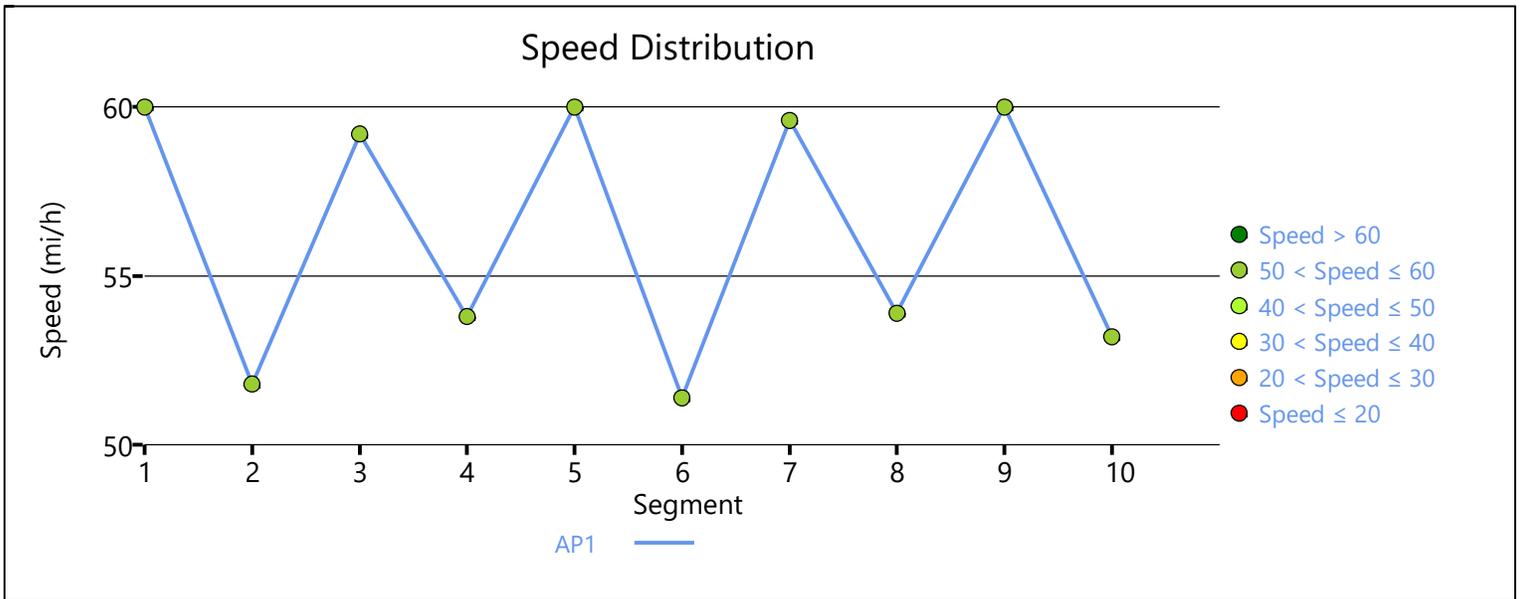
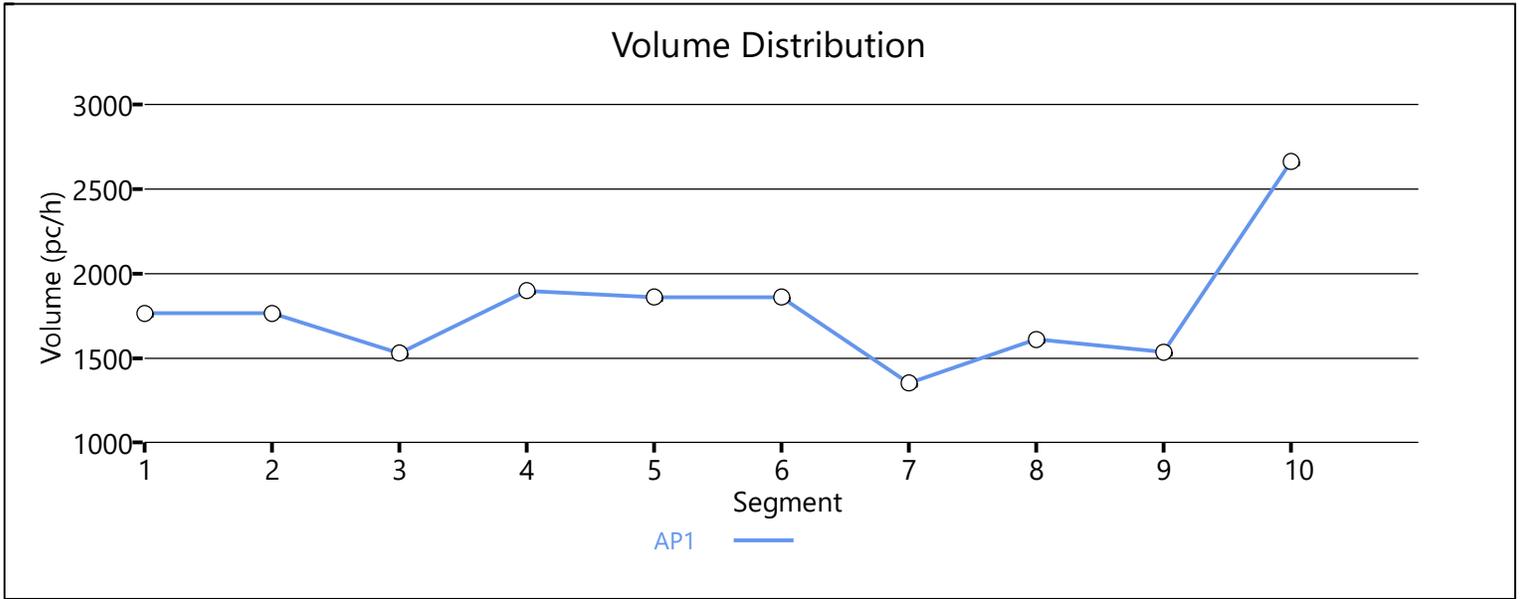
Space Mean Speed, mi/h	58.1	Density, veh/mi/ln	13.7
Average Travel Time, min	5.90	Density, pc/mi/ln	15.0

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.73	0.805	0.692	929	196	4600	2000	0.20	0.10	52.0	52.0	8.9	12.2	B
Segment 4: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.88		0.829		746		4600		0.16		59.7		6.2		A
Segment 5: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.93	0.829	0.711	1073	327	4600	2000	0.23	0.16	54.0	54.0	9.9	13.8	B
Segment 6: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.90		0.792		1066		4600		0.23		60.0		8.9		A
Segment 7: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.89	0.792	0.750	1066	117	4600	2000	0.23	0.06	52.1	52.1	10.2	13.4	B
Segment 8: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.88		0.797		972		4600		0.21		59.4		8.1		A
Segment 9: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.80	0.797	0.733	1178	206	4600	2000	0.26	0.10	54.0	54.0	10.9	14.6	B
Segment 10: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.87		0.787		1173		4600		0.26		60.0		9.8		A

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1188	1019	0.61	58.2	8.9	7.1	5.90	A

Facility Overall Results

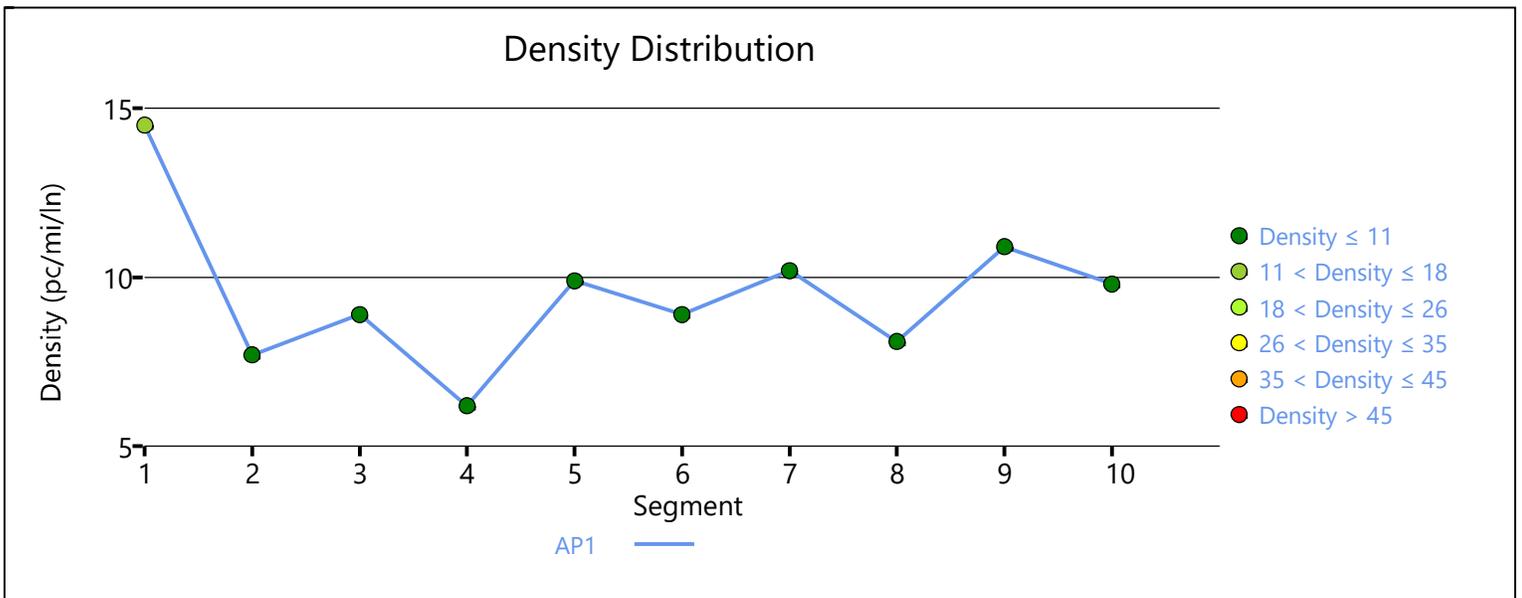
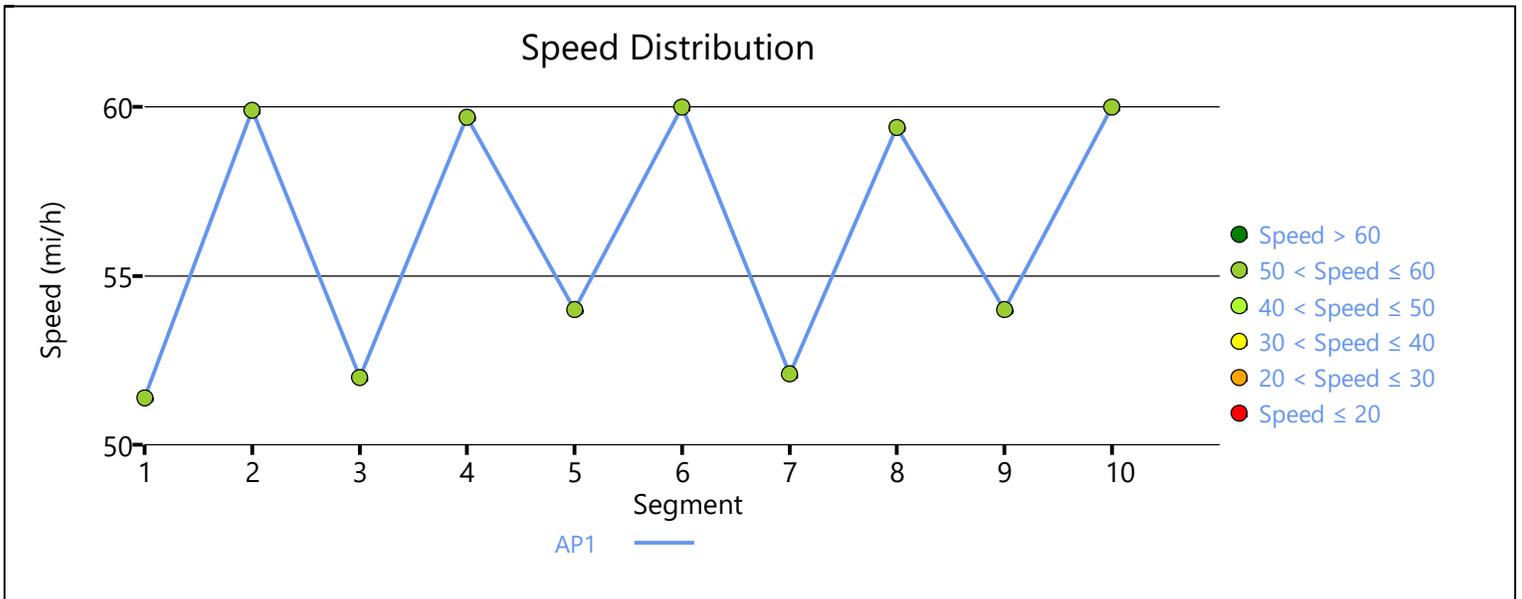
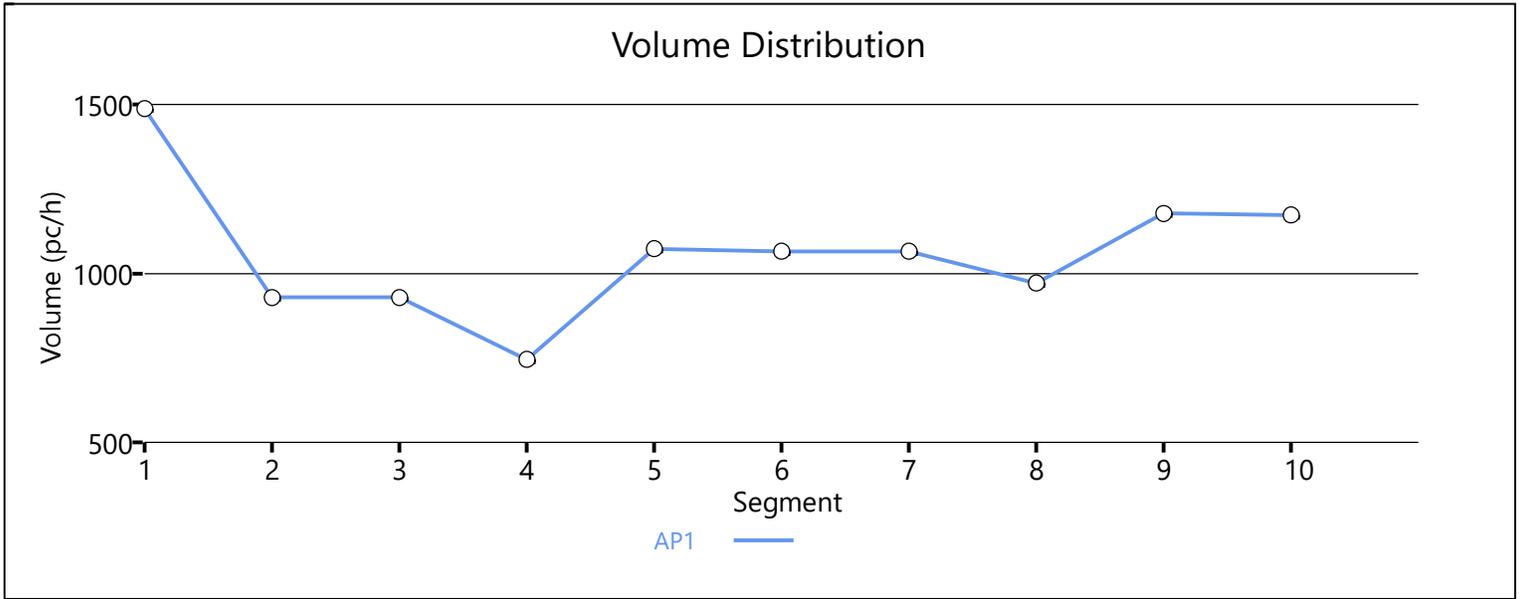
Space Mean Speed, mi/h	58.2	Density, veh/mi/ln	7.1
Average Travel Time, min	5.90	Density, pc/mi/ln	8.9

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments



	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.87	0.950	0.856	1757	271	4600	2000	0.38	0.14	51.9	51.9	16.9	19.4	B

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.966	1471	4600	0.32	59.7	12.3	B

Segment 5: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.92	0.966	0.778	2246	775	4600	2000	0.49	0.39	53.6	53.6	21.0	22.7	C

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.902	2247	4600	0.49	60.0	18.7	C

Segment 7: Diverge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.86	0.902	0.831	2247	207	4600	2000	0.49	0.10	52.0	52.0	21.6	23.6	C

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	2056	4600	0.45	59.4	17.1	B

Segment 9: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.90	0.909	0.913	2364	308	4600	2000	0.51	0.15	53.5	53.5	22.1	23.8	C

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	2352	4600	0.51	60.0	19.6	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	2769	2533	1.47	58.2	18.0	16.6	5.90	B

Facility Overall Results

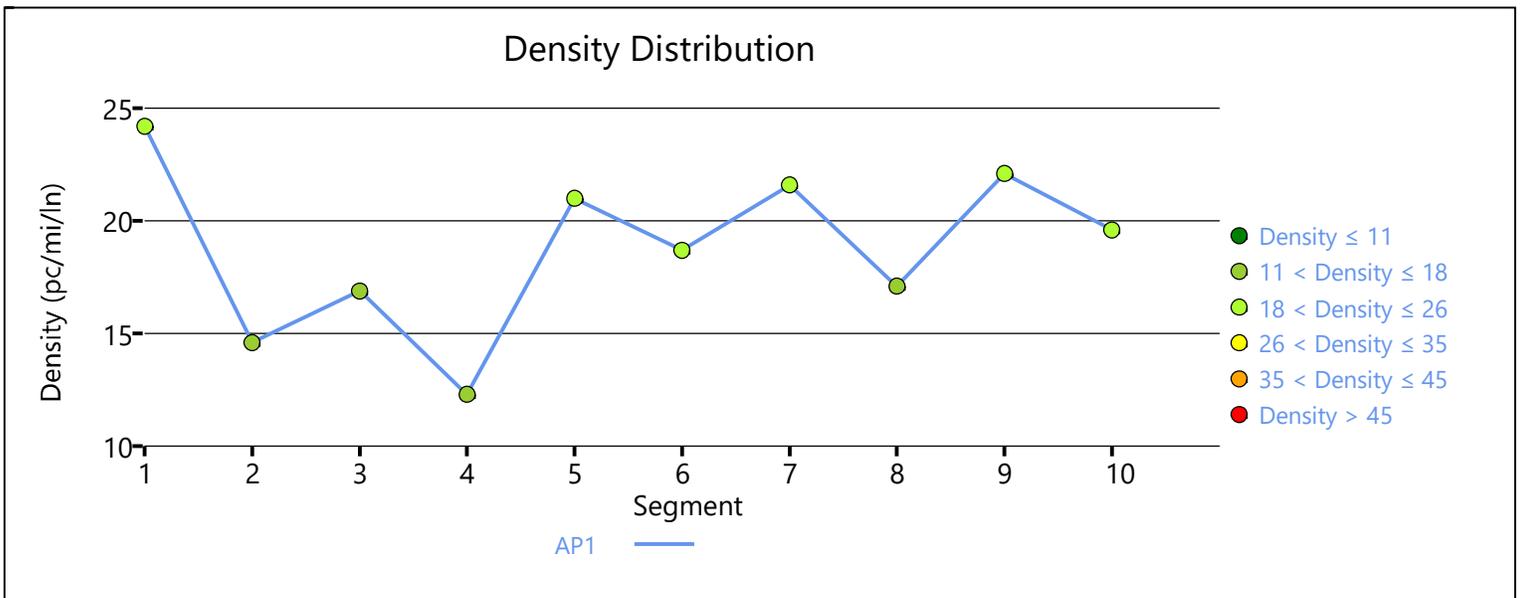
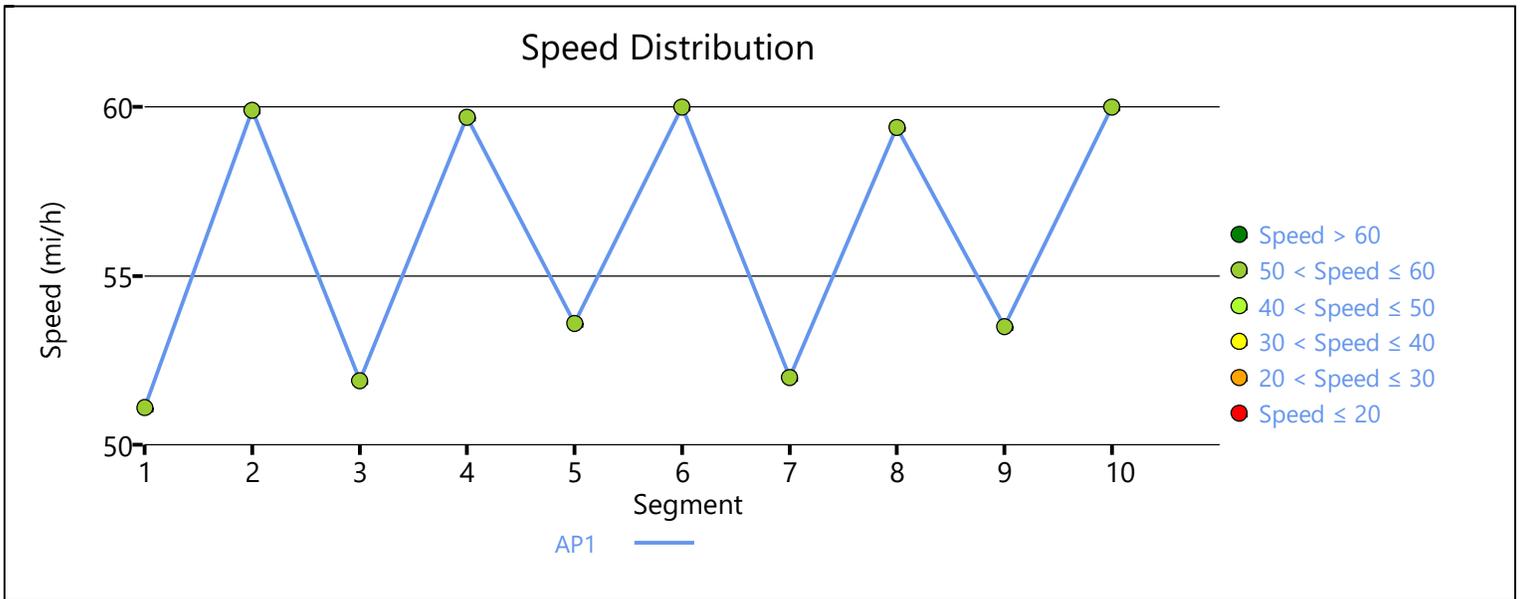
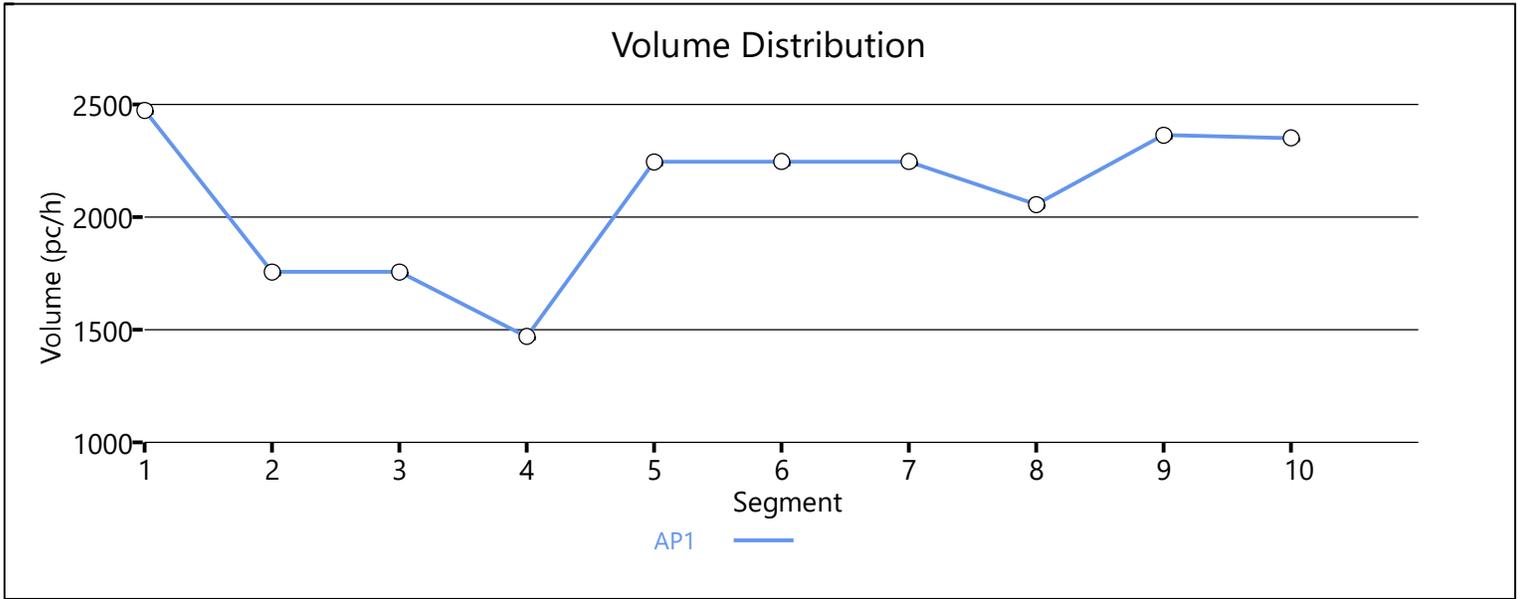
Space Mean Speed, mi/h	58.2	Density, veh/mi/ln	16.6
Average Travel Time, min	5.90	Density, pc/mi/ln	18.0

Messages

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end of the facility.

Comments



	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.73	0.805	0.692	920	210	4600	2000	0.20	0.10	52.0	52.0	8.8	12.2	B
Segment 4: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.88		0.829		728		4600		0.16		59.7		6.1		A
Segment 5: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.93	0.829	0.711	1095	367	4600	2000	0.24	0.18	54.0	54.0	10.1	13.9	B
Segment 6: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.90		0.792		1086		4600		0.24		60.0		9.0		A
Segment 7: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.89	0.792	0.750	1086	241	4600	2000	0.24	0.12	51.9	51.9	10.5	13.6	B
Segment 8: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.88		0.797		874		4600		0.19		59.4		7.3		A
Segment 9: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.80	0.797	0.733	1118	244	4600	2000	0.24	0.12	54.0	54.0	10.4	14.2	B
Segment 10: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.87		0.787		1104		4600		0.24		60.0		9.2		A

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1171	1000	0.62	58.2	8.8	7.0	5.90	A

Facility Overall Results

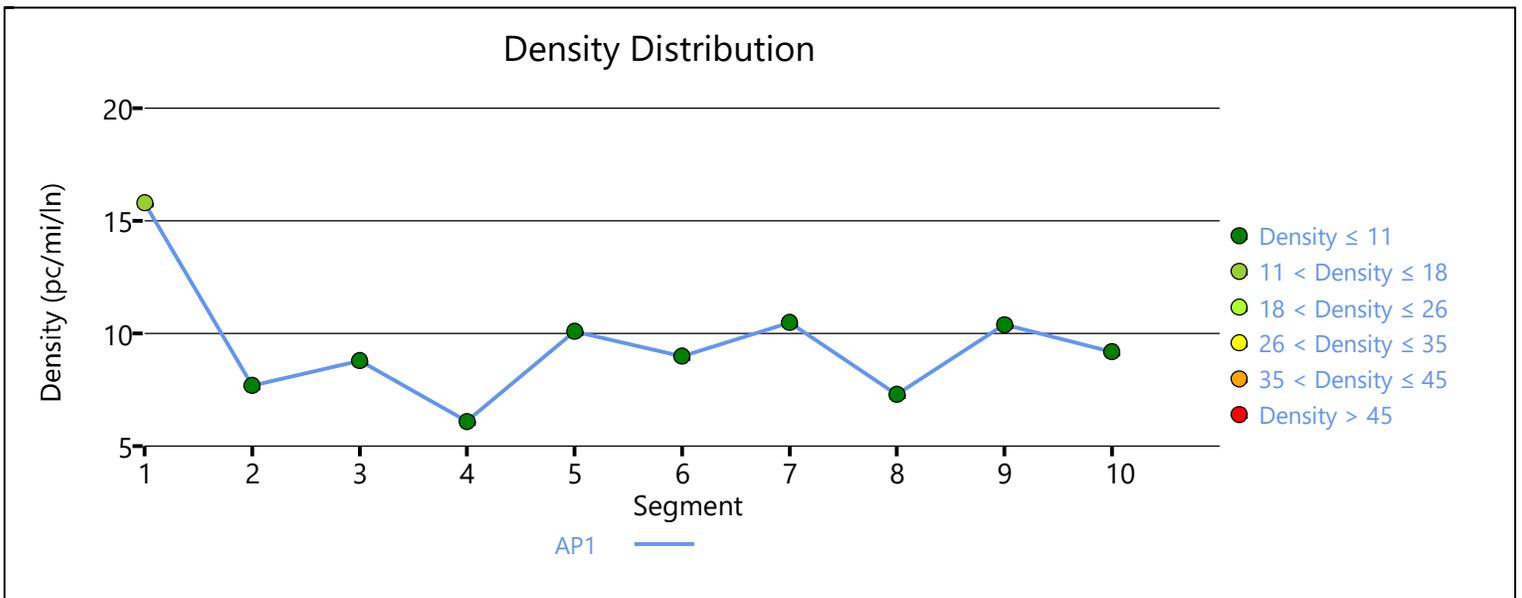
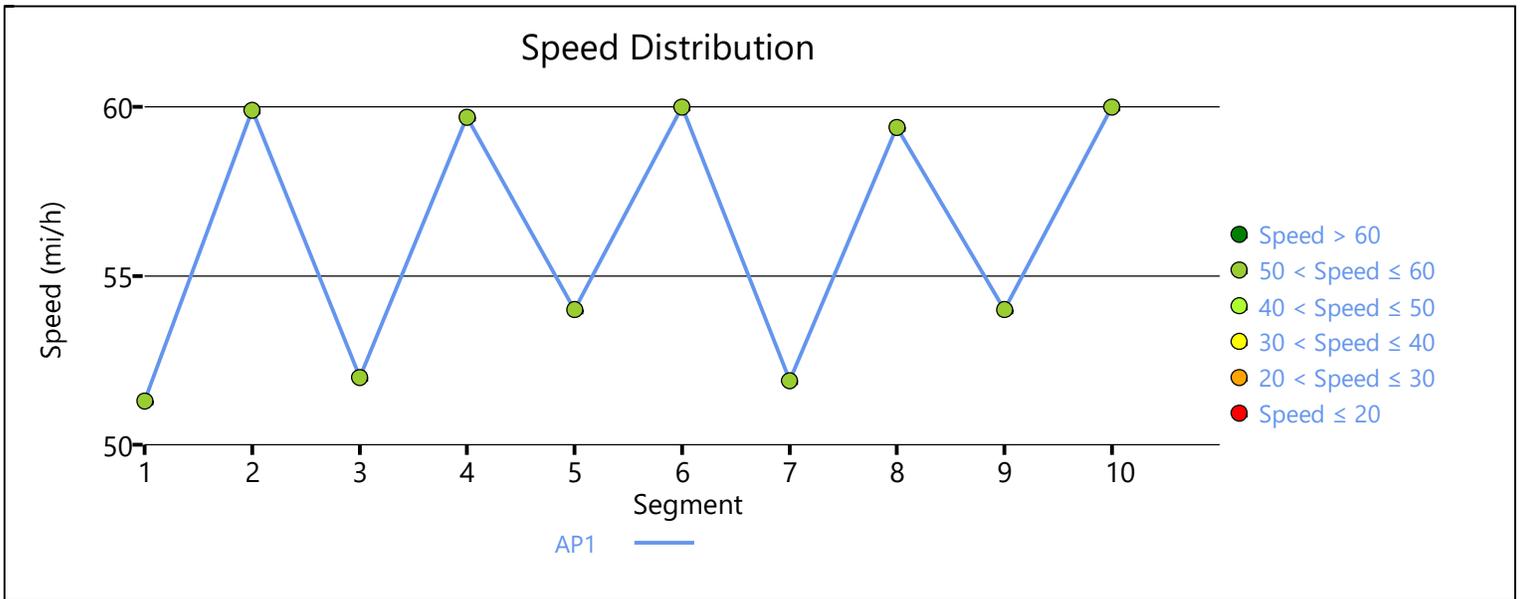
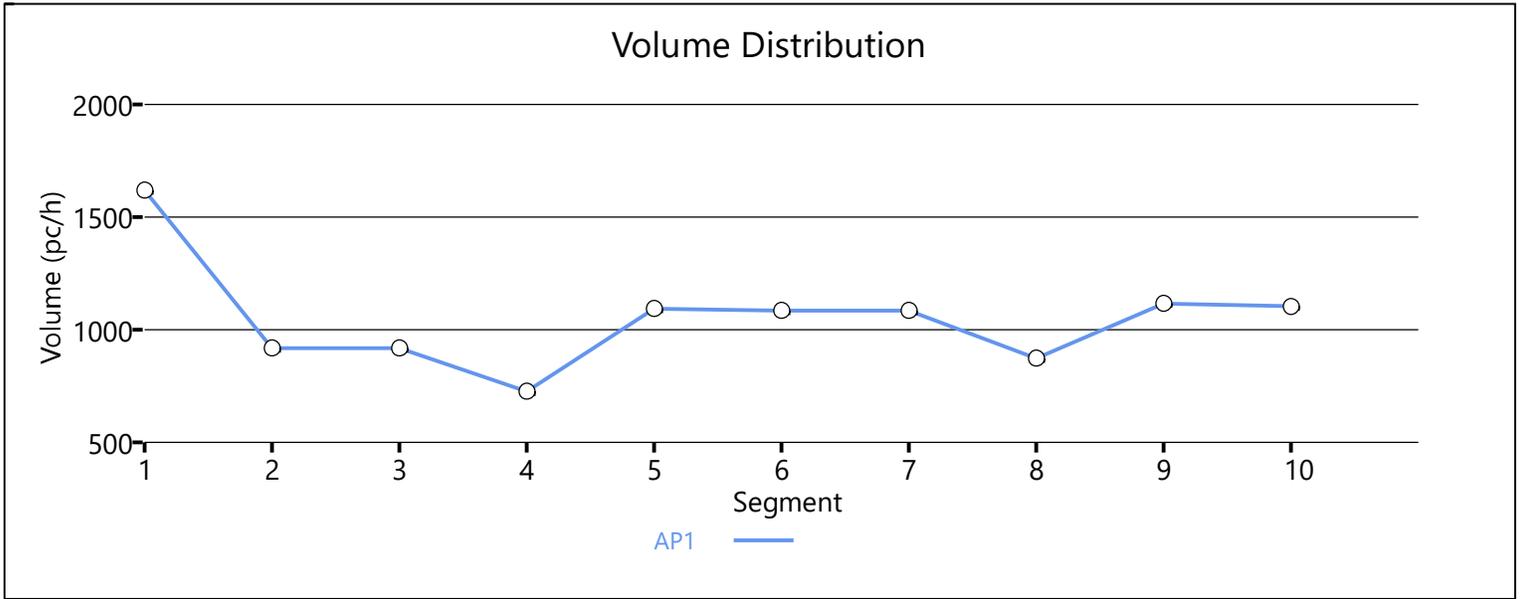
Space Mean Speed, mi/h	58.2	Density, veh/mi/ln	7.0
Average Travel Time, min	5.90	Density, pc/mi/ln	8.8

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments



	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.87	0.950	0.856	1939	302	4600	2000	0.42	0.15	51.8	51.8	18.7	20.9	C
Segment 4: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.966		1621		4600		0.35		59.7		13.5		B
Segment 5: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.92	0.966	0.778	2449	828	4600	2000	0.53	0.41	53.4	53.4	22.9	24.3	C
Segment 6: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.902		2454		4600		0.53		60.0		20.4		C
Segment 7: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.86	0.902	0.831	2454	239	4600	2000	0.53	0.12	51.9	51.9	23.6	25.4	C
Segment 8: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.909		2235		4600		0.49		59.4		18.6		C
Segment 9: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.90	0.909	0.913	2700	465	4600	2000	0.59	0.23	53.2	53.2	25.4	26.4	C
Segment 10: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.909		2682		4600		0.58		60.0		22.4		C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3068	2800	1.67	58.1	20.0	18.4	5.90	C

Facility Overall Results

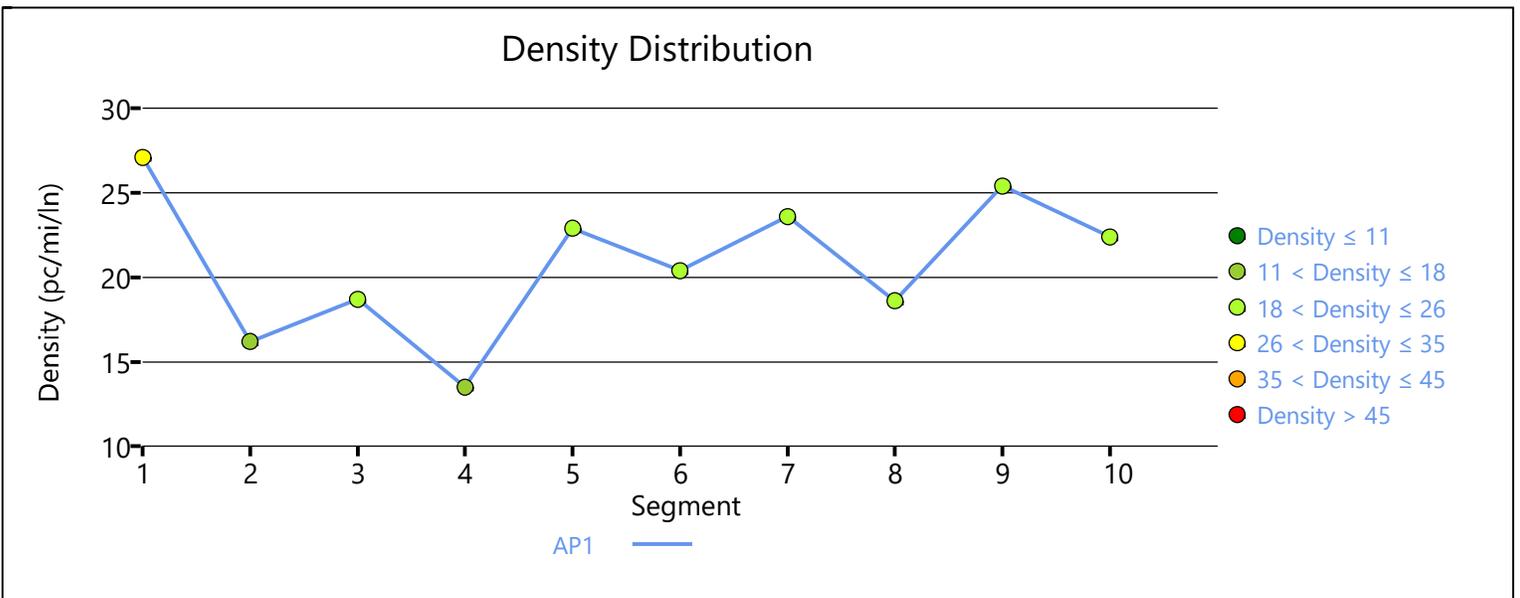
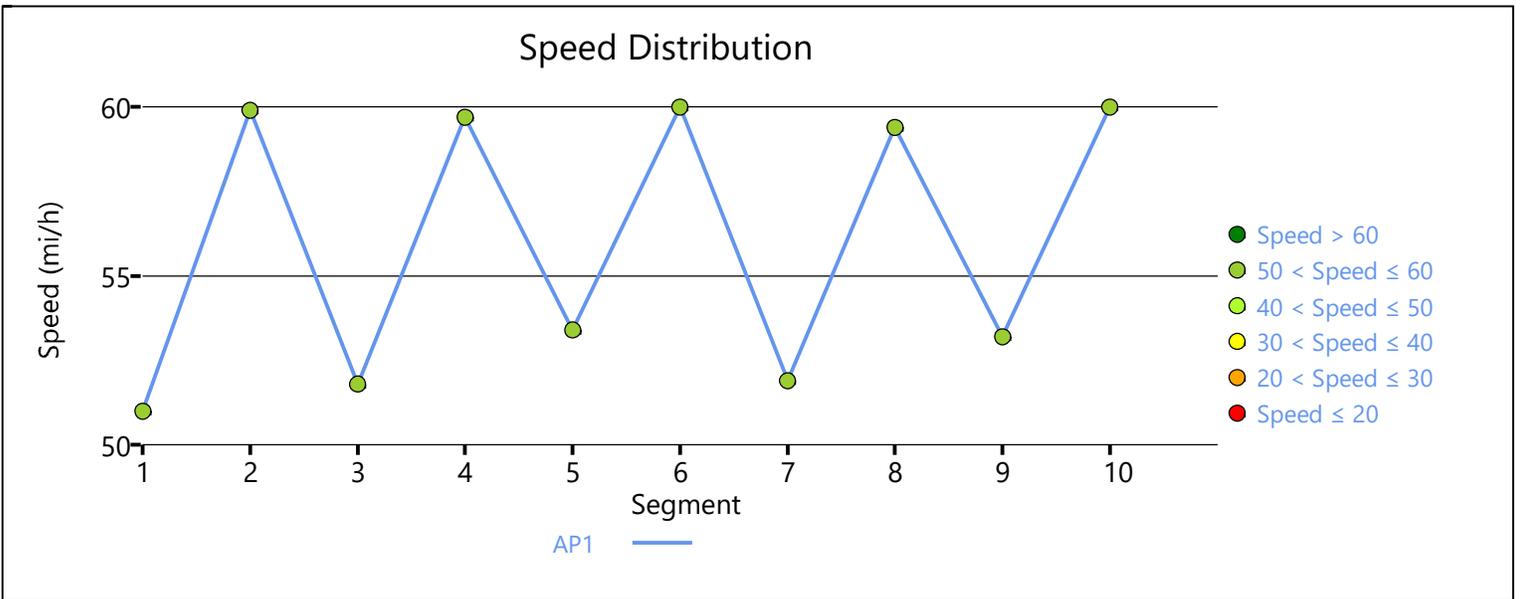
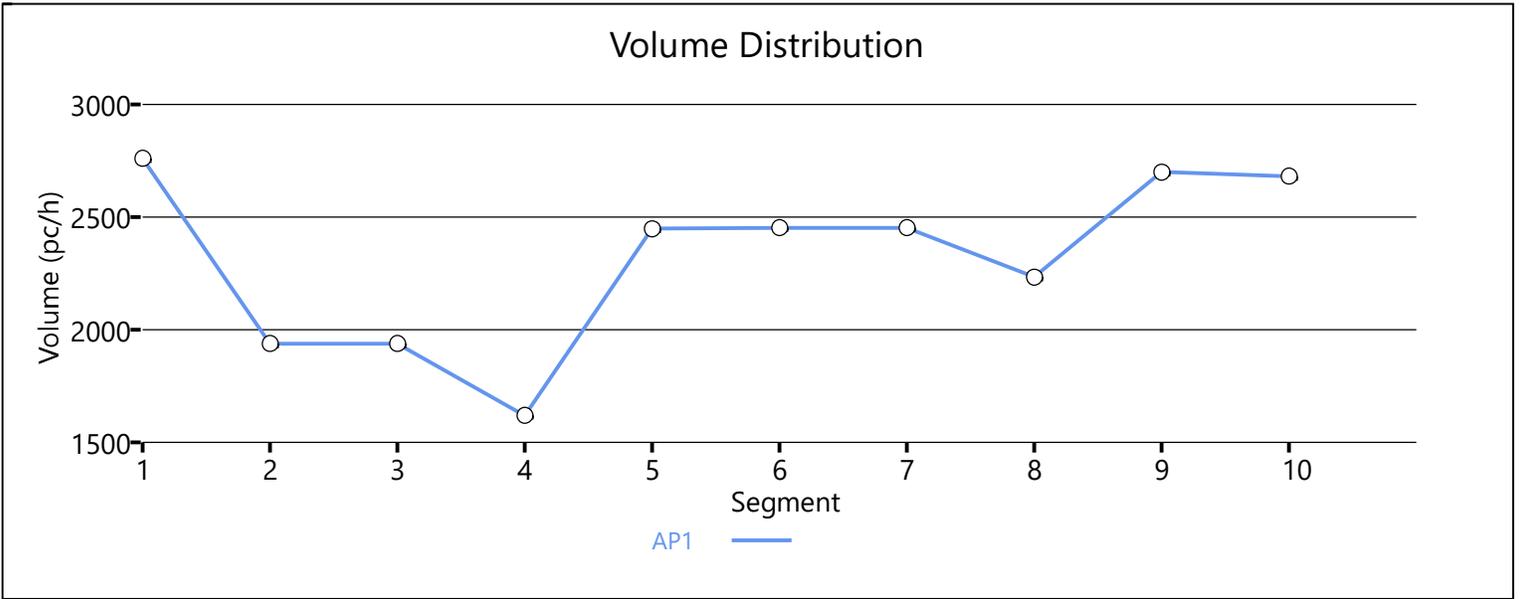
Space Mean Speed, mi/h	58.1	Density, veh/mi/ln	18.4
Average Travel Time, min	5.90	Density, pc/mi/ln	20.0

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments



	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.73	0.805	0.692	1085	245	4600	2000	0.24	0.12	51.9	51.9	10.5	13.6	B
Segment 4: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.88		0.829		859		4600		0.19		59.7		7.2		A
Segment 5: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.93	0.829	0.711	1284	425	4600	2000	0.28	0.21	54.0	54.0	11.9	15.4	B
Segment 6: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.90		0.792		1274		4600		0.28		60.0		10.6		A
Segment 7: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.89	0.792	0.750	1274	262	4600	2000	0.28	0.13	51.9	51.9	12.3	15.2	B
Segment 8: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.88		0.797		1045		4600		0.23		59.4		8.7		A
Segment 9: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.80	0.797	0.733	1325	280	4600	2000	0.29	0.14	54.0	54.0	12.3	15.8	B
Segment 10: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.87		0.787		1310		4600		0.28		60.0		10.9		A

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1380	1180	0.73	58.2	10.3	8.3	5.90	A

Facility Overall Results

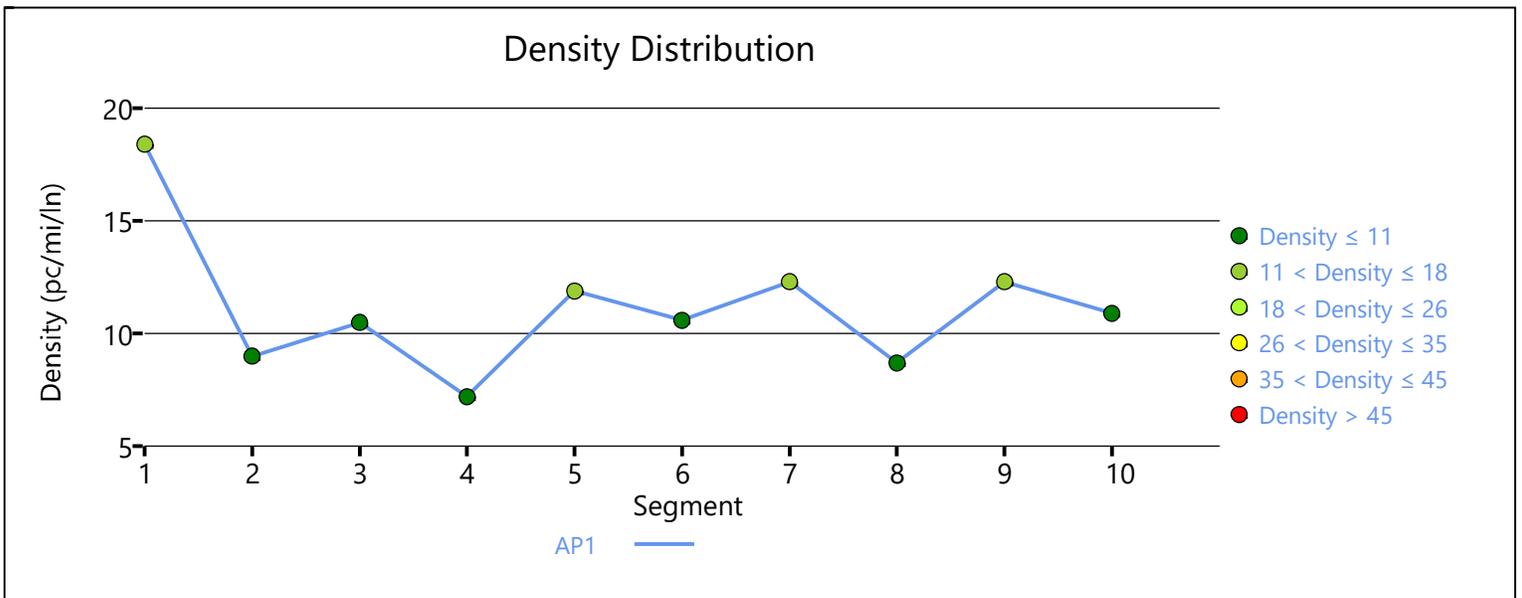
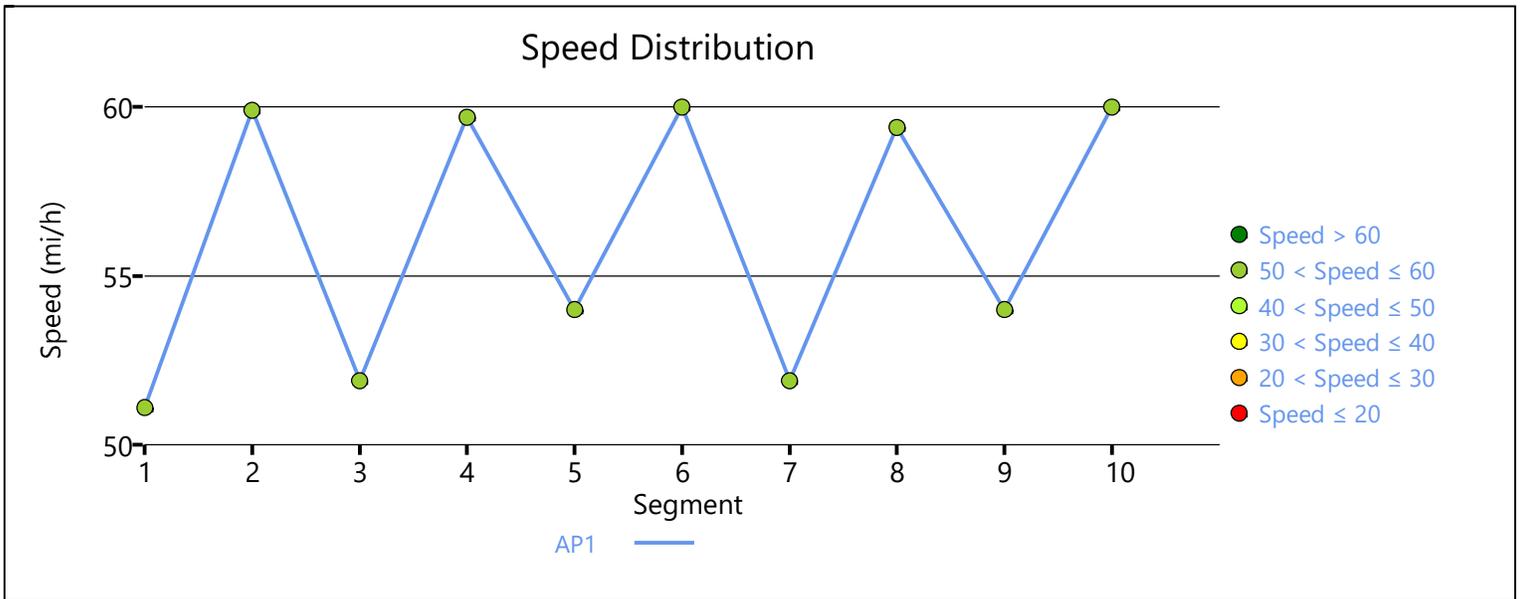
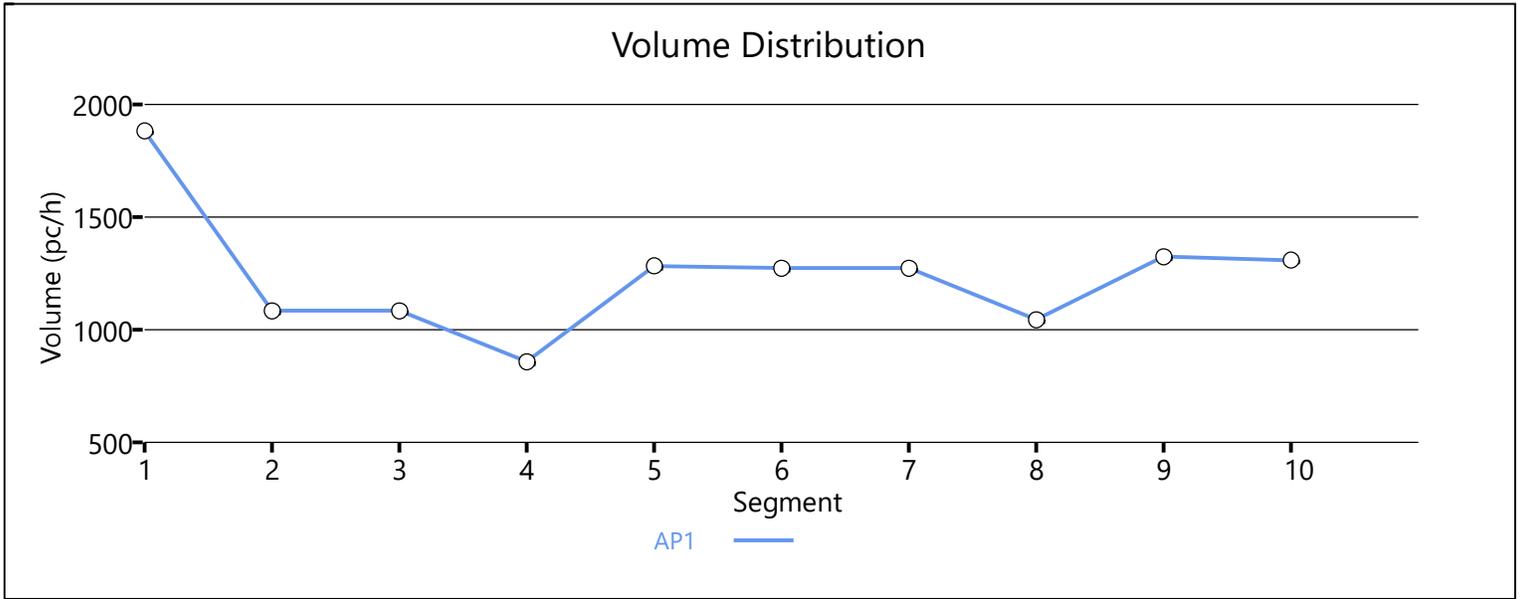
Space Mean Speed, mi/h	58.2	Density, veh/mi/ln	8.3
Average Travel Time, min	5.90	Density, pc/mi/ln	10.3

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments



	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.87	0.950	0.856	2249	350	4600	2000	0.49	0.18	51.7	51.7	21.8	23.6	C
Segment 4: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.966		1881		4600		0.41		59.7		15.7		B
Segment 5: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.92	0.966	0.778	2846	965	4600	2000	0.62	0.48	53.0	53.0	26.8	27.3	C
Segment 6: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.902		2851		4600		0.62		60.0		23.8		C
Segment 7: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.86	0.902	0.831	2851	274	4600	2000	0.62	0.14	51.8	51.8	27.5	28.8	D
Segment 8: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.909		2599		4600		0.57		59.4		21.7		C
Segment 9: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.90	0.909	0.913	3119	520	4600	2000	0.68	0.26	52.6	52.6	29.6	29.6	D
Segment 10: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.909		3099		4600		0.67		60.0		25.8		C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3557	3248	2.02	58.0	23.2	21.4	5.90	C

Facility Overall Results

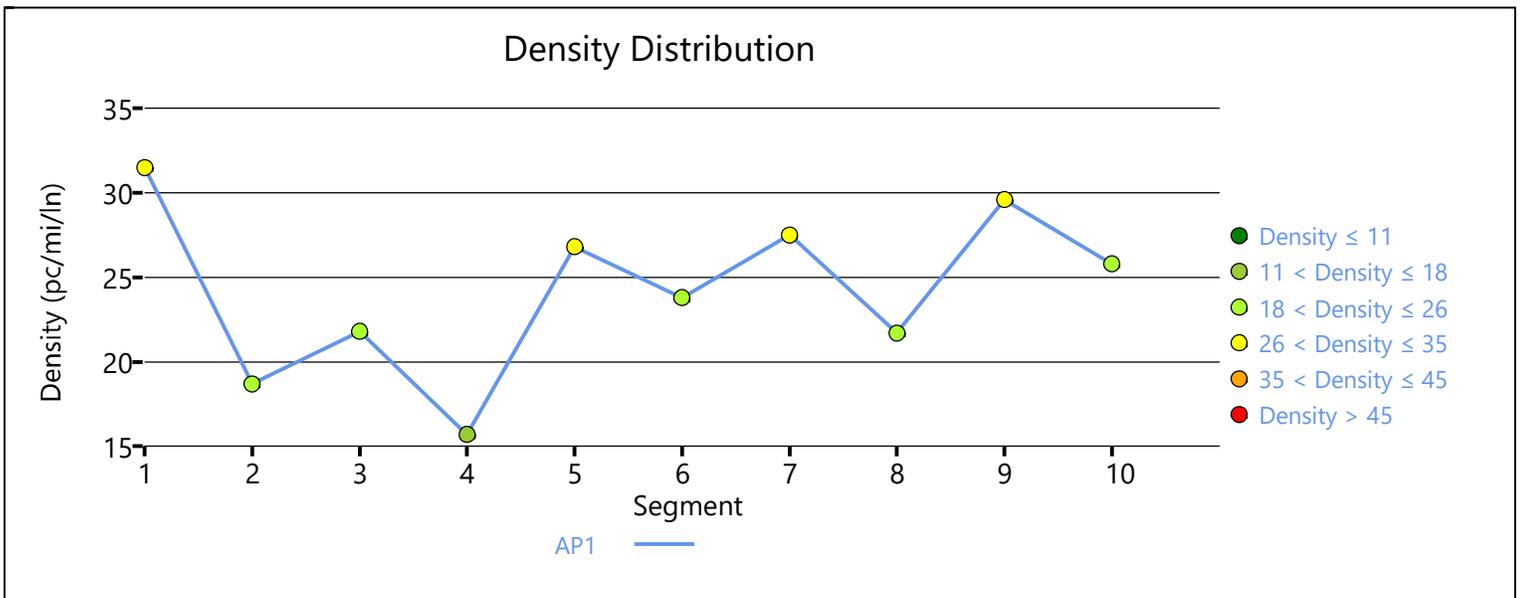
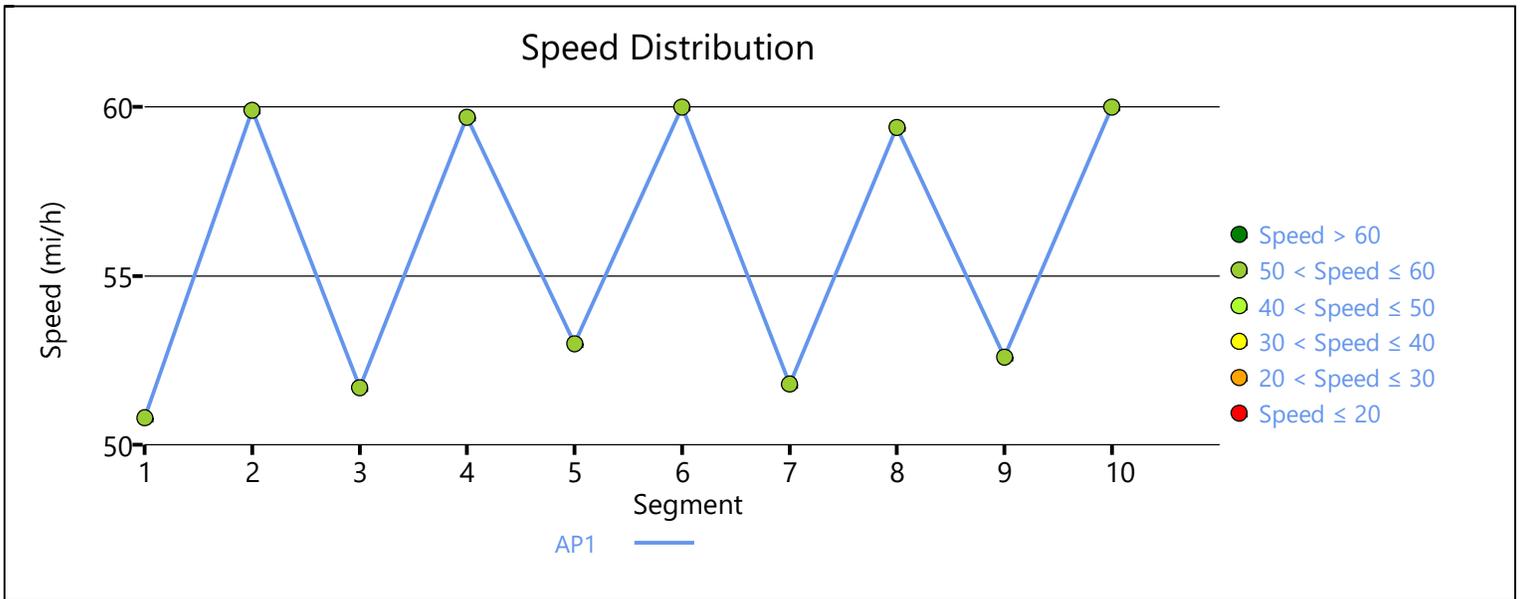
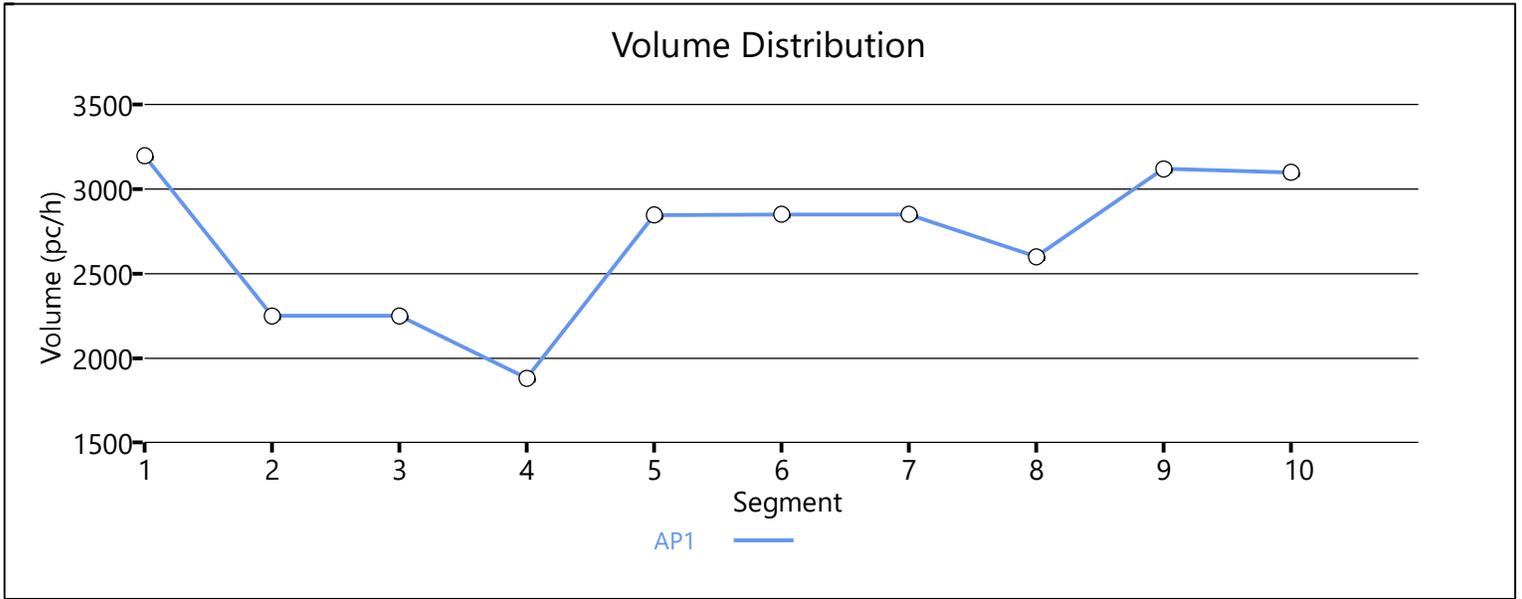
Space Mean Speed, mi/h	58.0	Density, veh/mi/ln	21.4
Average Travel Time, min	5.90	Density, pc/mi/ln	23.2

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments



**HCS Delay and LOS
Acceleration & Deceleration
Lane Addition**

HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2030
Jurisdiction	PennDOT D-6	Time Analyzed	AM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	EB_10 SR 1 EB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.85	0.869	3280	4600	0.71	60.0	27.3	D

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.85	0.72	0.869	0.721	3280	842	4600	2000	0.71	0.42	50.9	50.9	32.2	27.8	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.901	2505	4600	0.54	59.1	20.9	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.86	0.901	0.800	2707	202	4600	2000	0.59	0.10	54.5	54.5	24.8	20.2	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.894	2671	4600	0.58	60.0	22.3	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.84	0.894	0.824	2671	732	4600	2000	0.58	0.37	51.1	51.1	26.1	24.5	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.918	2026	4600	0.44	59.6	16.9	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.85	0.918	0.803	2247	221	4600	2000	0.49	0.11	54.3	54.3	20.7	19.5	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.908	2214	4600	0.48	60.0	18.4	C

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.95	0.908	0.807	2997	783	4600	2000	0.65	0.39	52.8	52.8	28.4	28.6	D

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3392	2927	1.90	58.1	22.8	20.3	5.90	C

Facility Overall Results

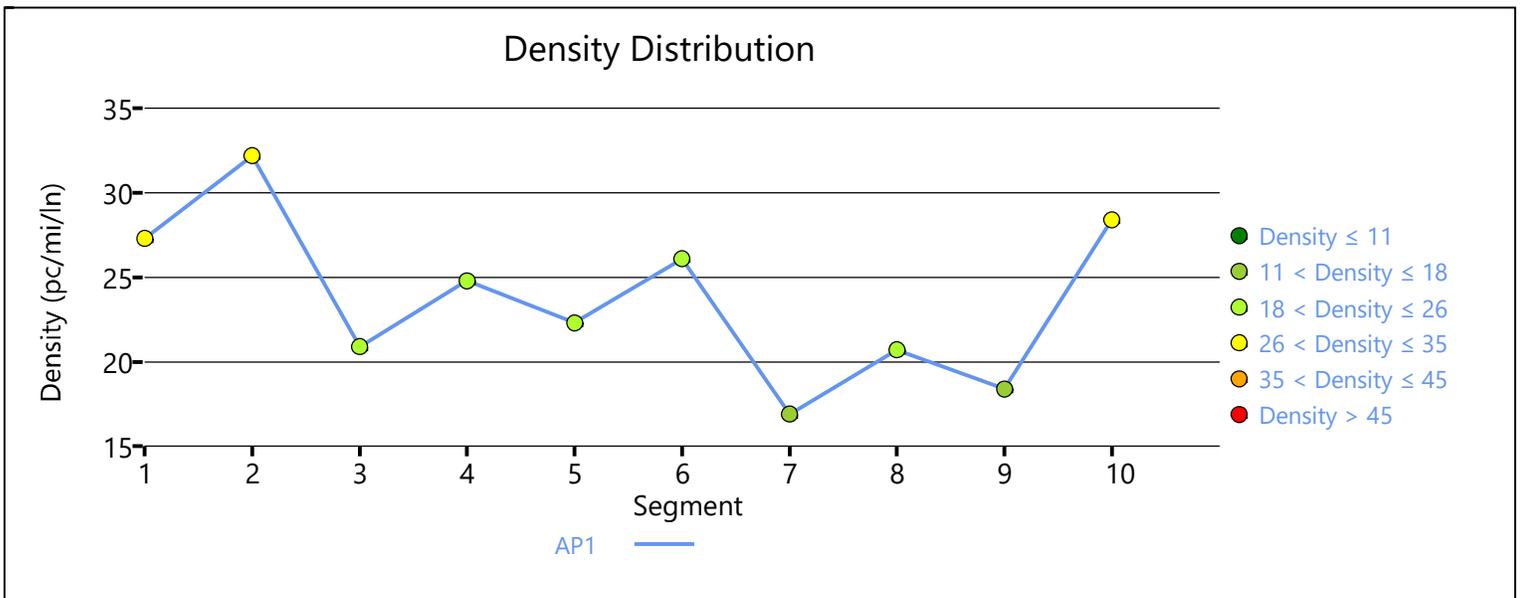
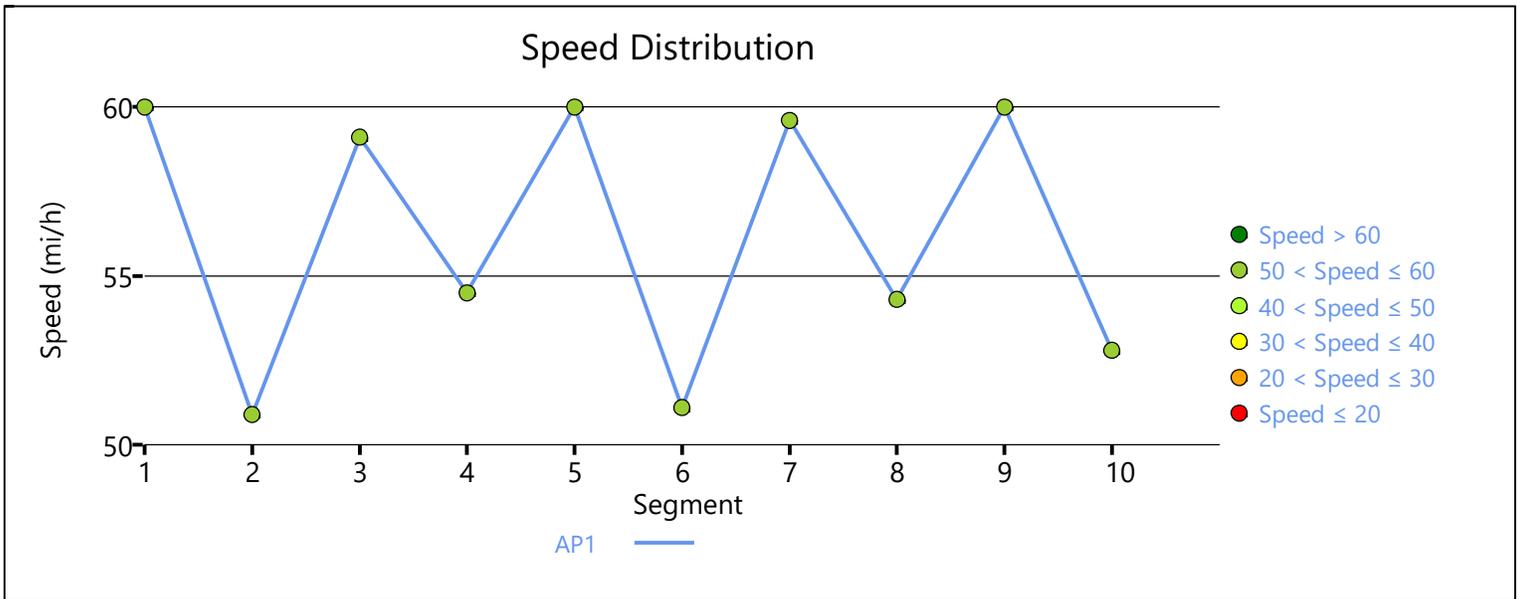
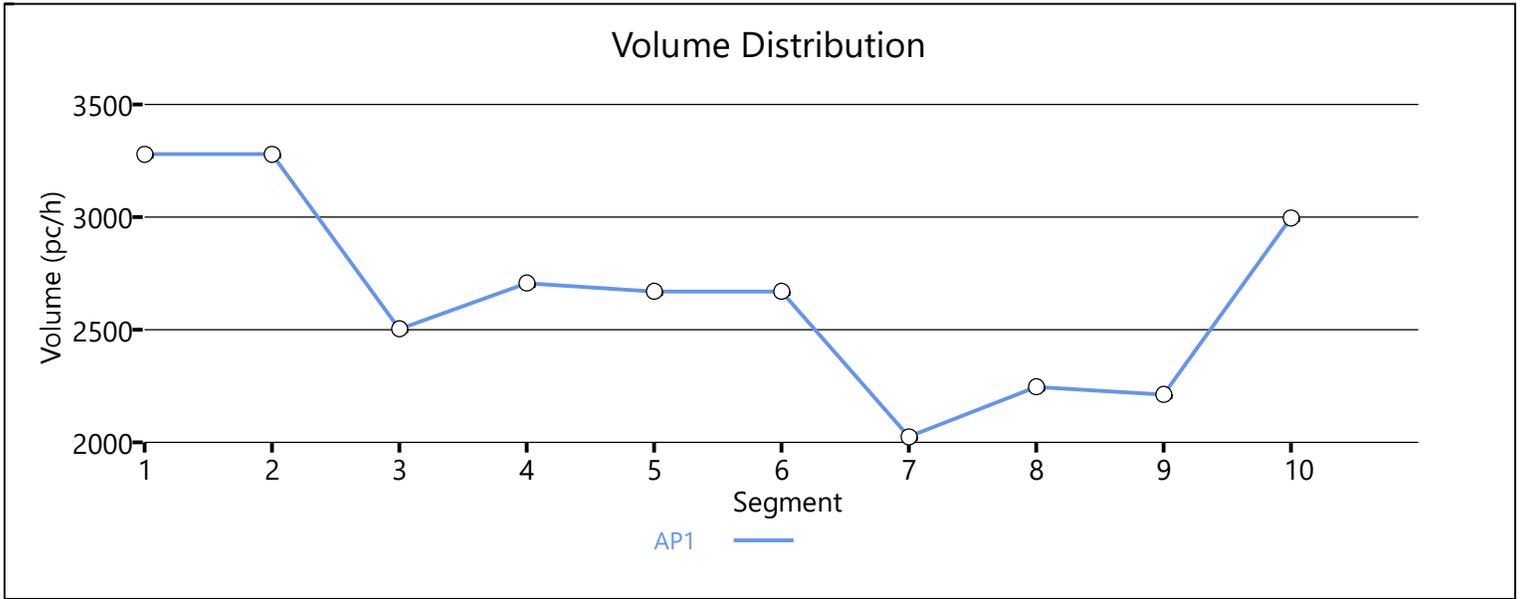
Space Mean Speed, mi/h	58.1	Density, veh/mi/ln	20.3
Average Travel Time, min	5.90	Density, pc/mi/ln	22.8

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2030
Jurisdiction	PennDOT D-6	Time Analyzed	PM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	EB_10 SR 1 EB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.891	1517	4600	0.33	60.0	12.6	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.86	0.891	0.747	1517	272	4600	2000	0.33	0.14	51.9	51.9	14.6	12.6	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.917	1311	4600	0.29	59.2	10.9	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.78	0.917	0.839	1649	338	4600	2000	0.36	0.17	55.1	55.1	15.0	11.9	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.908	1612	4600	0.35	60.0	13.4	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.91	0.908	0.832	1612	462	4600	2000	0.35	0.23	51.5	51.5	15.7	15.4	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.942	1176	4600	0.26	59.6	9.8	A

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.85	0.942	0.861	1396	220	4600	2000	0.30	0.11	54.7	54.7	12.8	12.6	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.929	1332	4600	0.29	60.0	11.1	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.91	0.929	0.929	2307	975	4600	2000	0.50	0.49	53.5	53.5	21.6	23.1	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1972	1711	1.01	58.2	12.9	11.8	5.90	B

Facility Overall Results

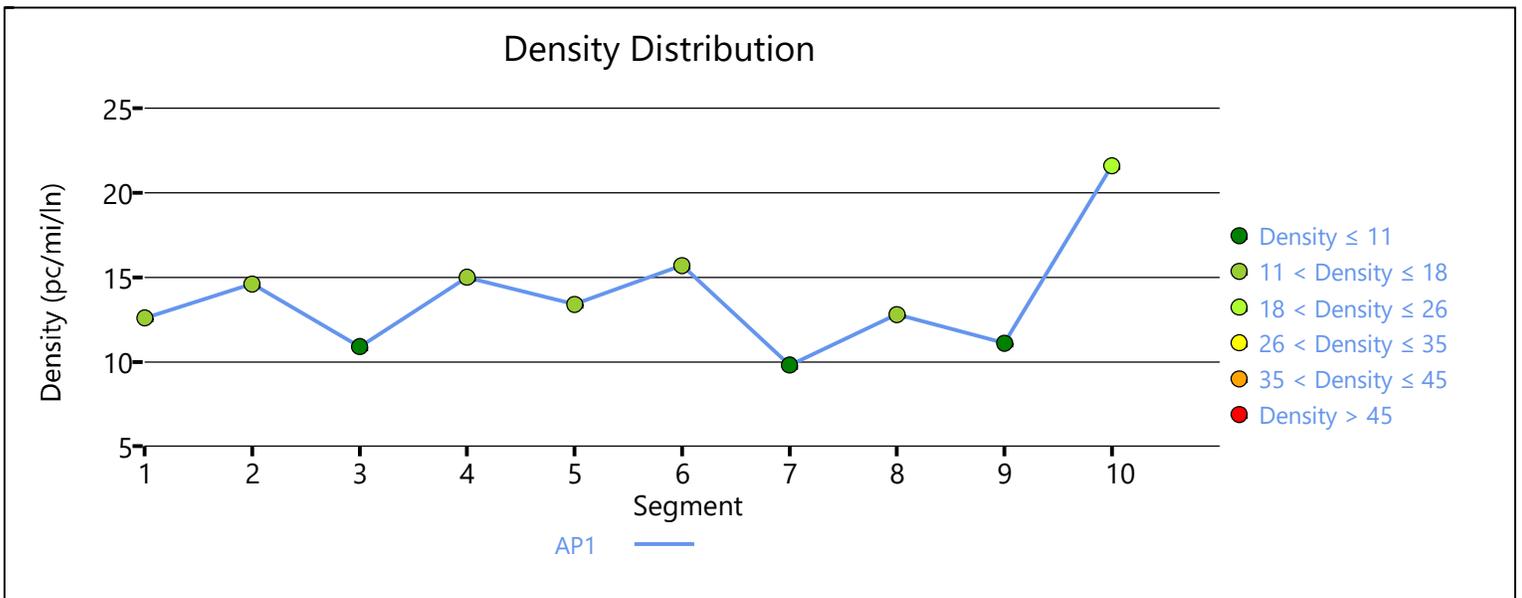
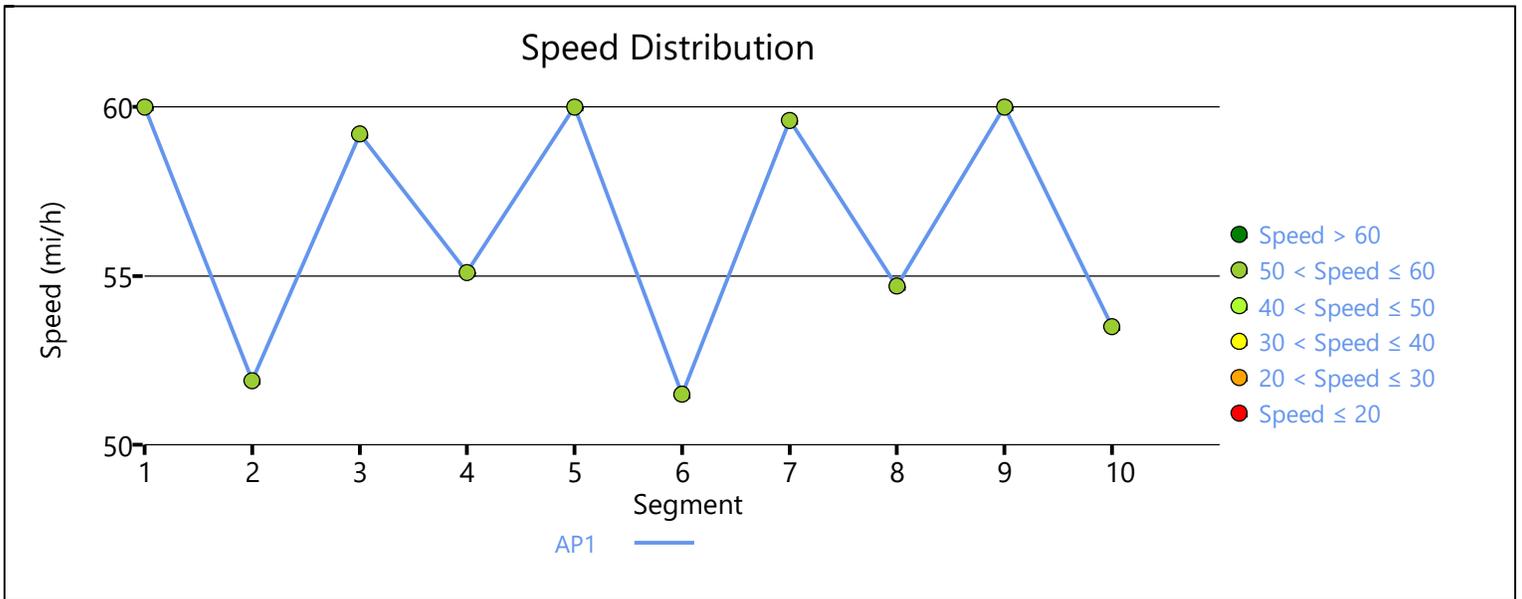
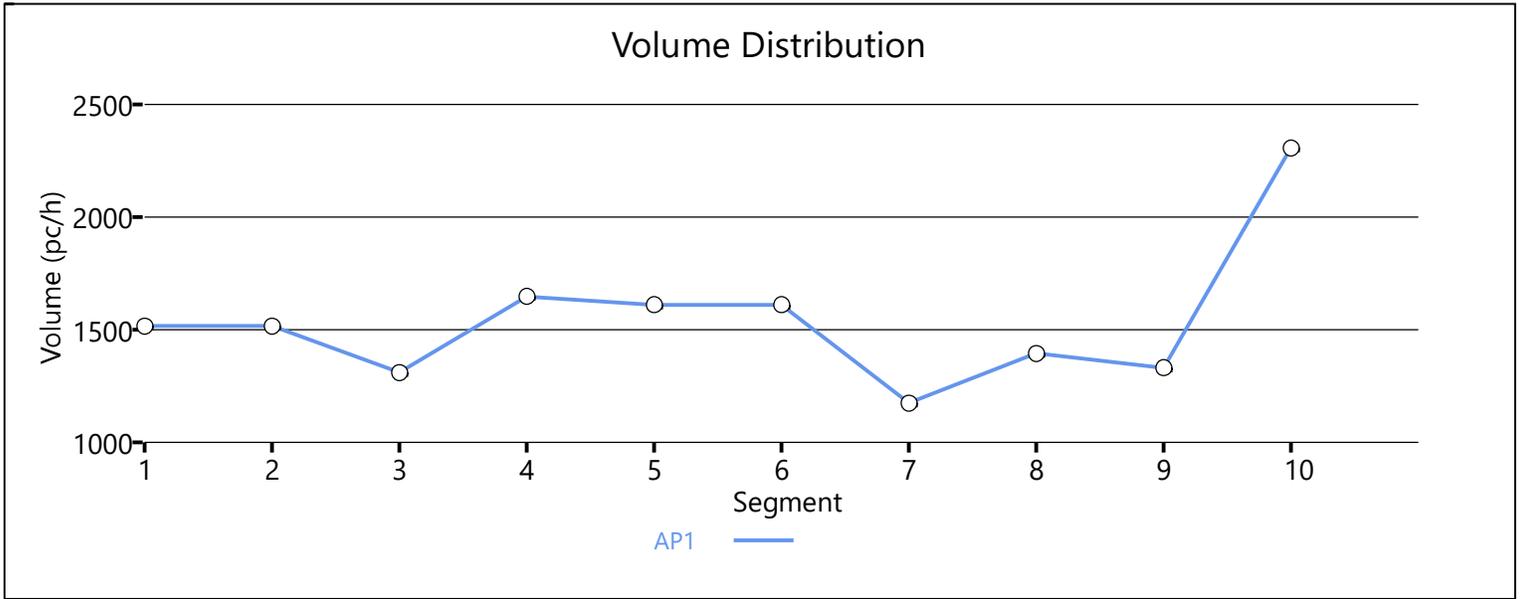
Space Mean Speed, mi/h	58.2	Density, veh/mi/ln	11.8
Average Travel Time, min	5.90	Density, pc/mi/ln	12.9

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2050
Jurisdiction	PennDOT D-6	Time Analyzed	AM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	EB_10 SR 1 EB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.85	0.869	3802	4600	0.83	58.4	32.6	D

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.85	0.72	0.869	0.721	3802	948	4600	2000	0.83	0.47	50.8	50.8	37.4	32.3	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.901	2921	4600	0.64	59.1	24.3	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.86	0.901	0.800	3152	231	4600	2000	0.69	0.12	53.9	53.9	29.2	23.6	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.894	3111	4600	0.68	60.0	25.9	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.84	0.894	0.824	3111	854	4600	2000	0.68	0.43	50.9	50.9	30.6	28.3	D

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.918	2359	4600	0.51	59.6	19.7	C

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.85	0.918	0.803	2615	256	4600	2000	0.57	0.13	54.0	54.0	24.2	22.1	C

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.908	2577	4600	0.56	60.0	21.5	C

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.95	0.908	0.807	3476	899	4600	2000	0.76	0.45	52.0	52.0	33.4	32.2	D

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3945	3405	2.64	57.7	26.7	23.9	6.00	D

Facility Overall Results

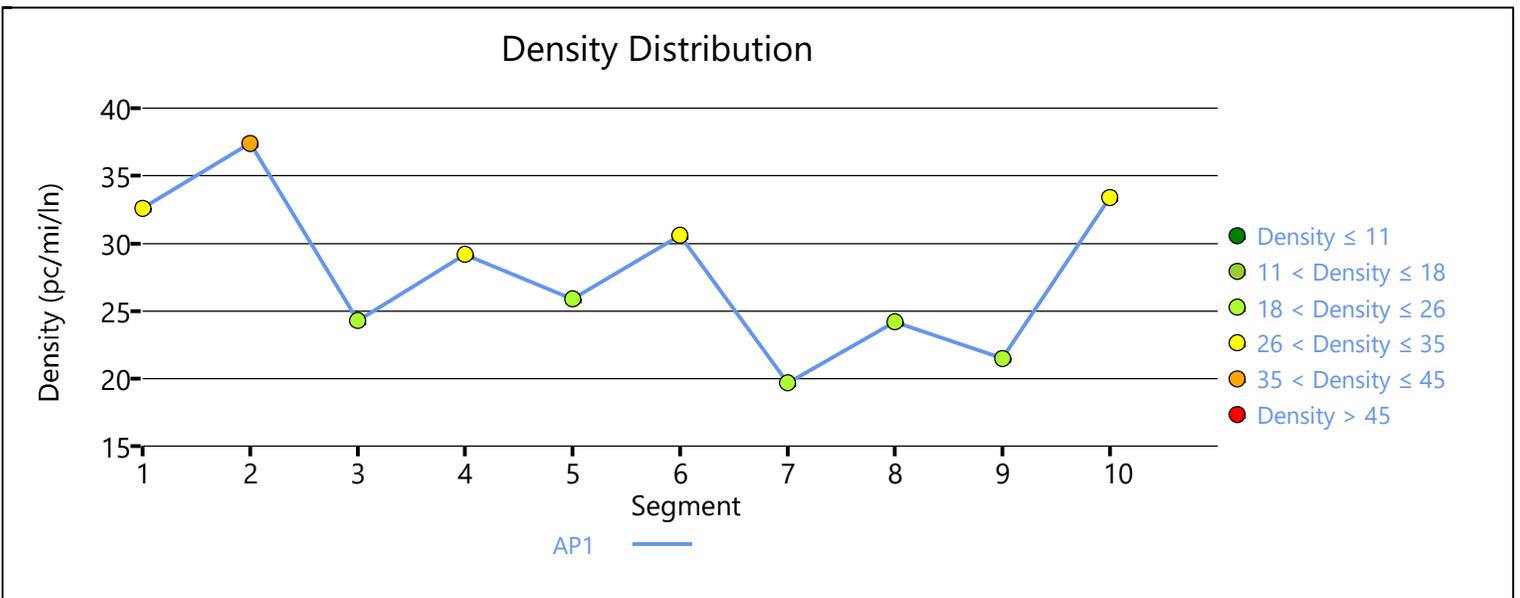
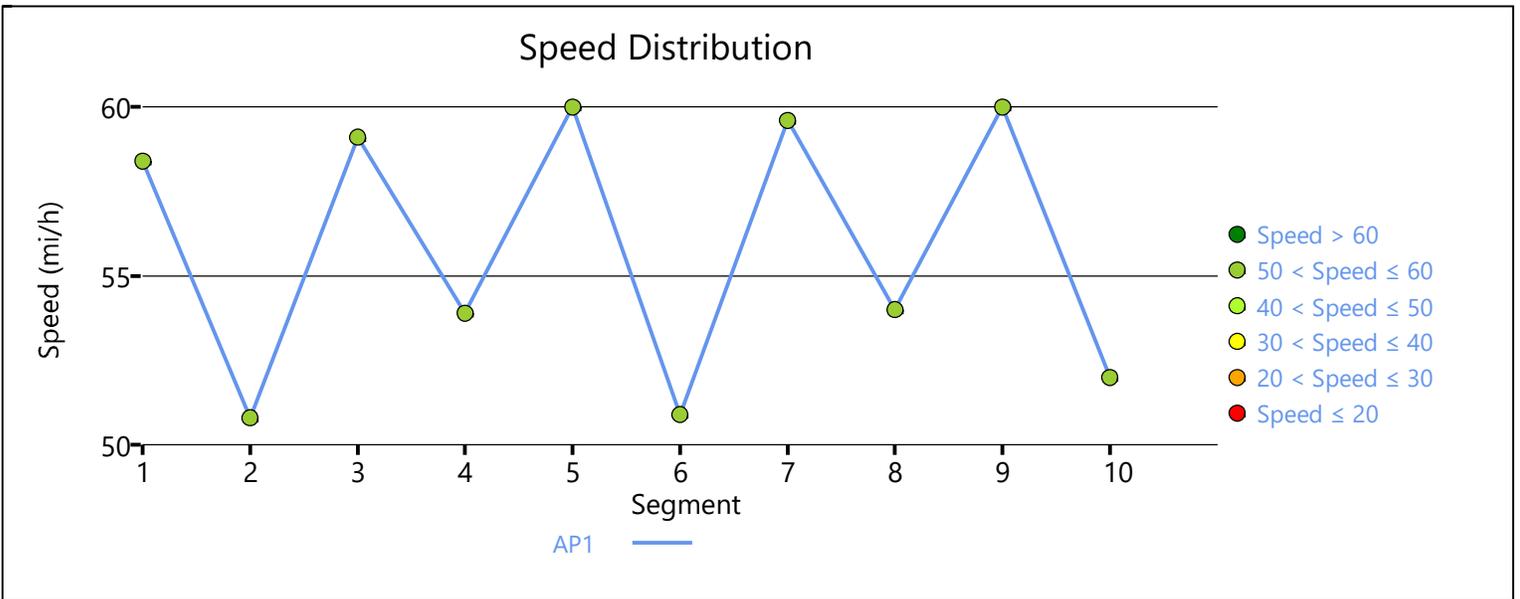
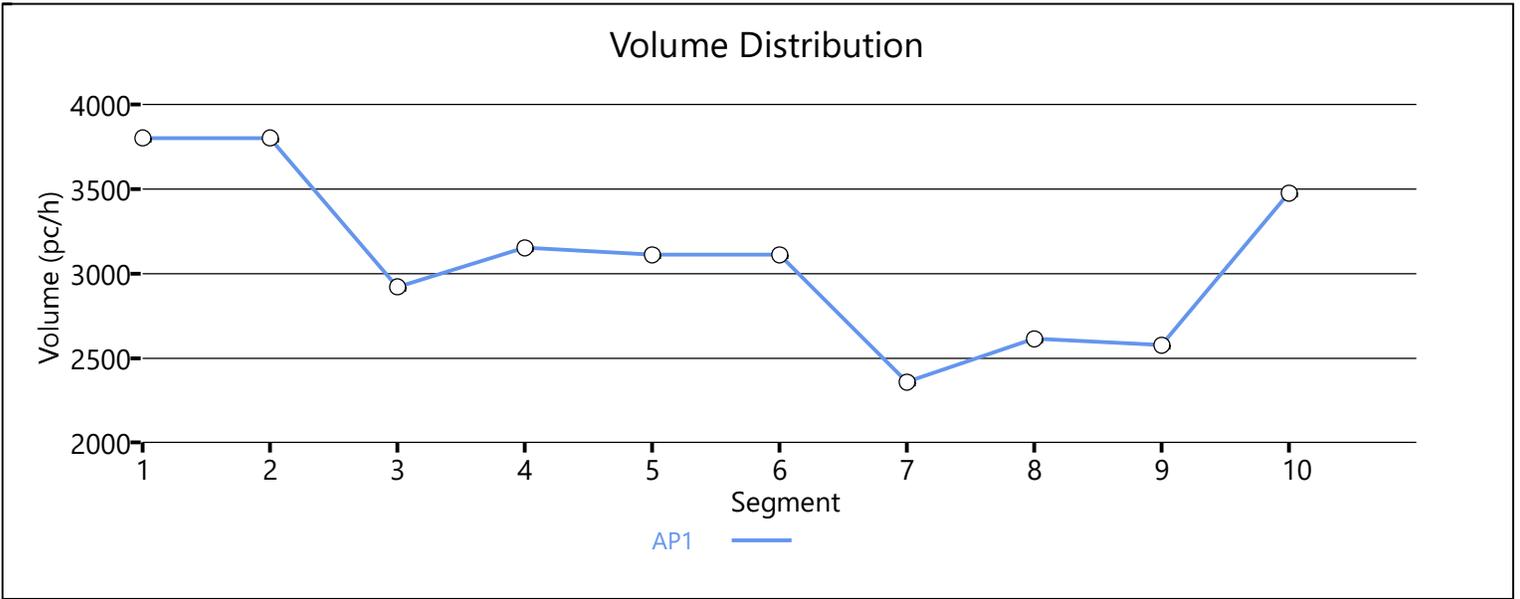
Space Mean Speed, mi/h	57.7	Density, veh/mi/ln	23.9
Average Travel Time, min	6.00	Density, pc/mi/ln	26.7

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.
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Comments





HCS Freeway Facilities Report

Project Information

Analyst	ASR	Date	11/4/2022
Agency	AECOM	Analysis Year	2050
Jurisdiction	PennDOT D-6	Time Analyzed	PM
Project Description	SR 1 Analysis	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	10
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.73		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	NB_01 SR 1 NB	4500	2
2	Diverge	Diverge	NB_02 SR 1 NB to Newark Road Off Ramp	1500	2
3	Basic	Basic	NB_03 SR 1 NB between Newark Road Ramps	1375	2
4	Merge	Merge	NB_04 SR 1 NB from Newark Road On-Ramp	1500	2
5	Basic	Basic	NB_05 SR 1 NB	10645	2
6	Diverge	Diverge	NB_06 SR 1 NB to SR 82 Off Ramp	1500	2
7	Basic	Basic	NB_07 SR 1 NB between SR 82 Ramps	2415	2
8	Merge	Merge	NB_08 SR 1 NB from SR 82 On Ramp	1500	2
9	Basic	Basic	NB_09 SR 1 NB	4675	2
10	Merge	Merge	EB_10 SR 1 EB from Baltimore Pike	655	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.891	1764	4600	0.38	60.0	14.7	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.86	0.891	0.747	1764	311	4600	2000	0.38	0.16	51.8	51.8	17.0	14.7	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.917	1529	4600	0.33	59.2	12.7	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.78	0.917	0.839	1899	370	4600	2000	0.41	0.18	55.0	55.0	17.3	13.8	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.908	1861	4600	0.40	60.0	15.5	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.91	0.908	0.832	1861	539	4600	2000	0.40	0.27	51.4	51.4	18.1	17.6	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.942	1353	4600	0.29	59.6	11.3	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.85	0.942	0.861	1610	257	4600	2000	0.35	0.13	54.6	54.6	14.7	14.2	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.929	1536	4600	0.33	60.0	12.8	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.91	0.929	0.929	2662	1126	4600	2000	0.58	0.56	53.2	53.2	25.0	25.8	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	2279	1979	1.20	58.2	15.0	13.7	5.90	B

Facility Overall Results

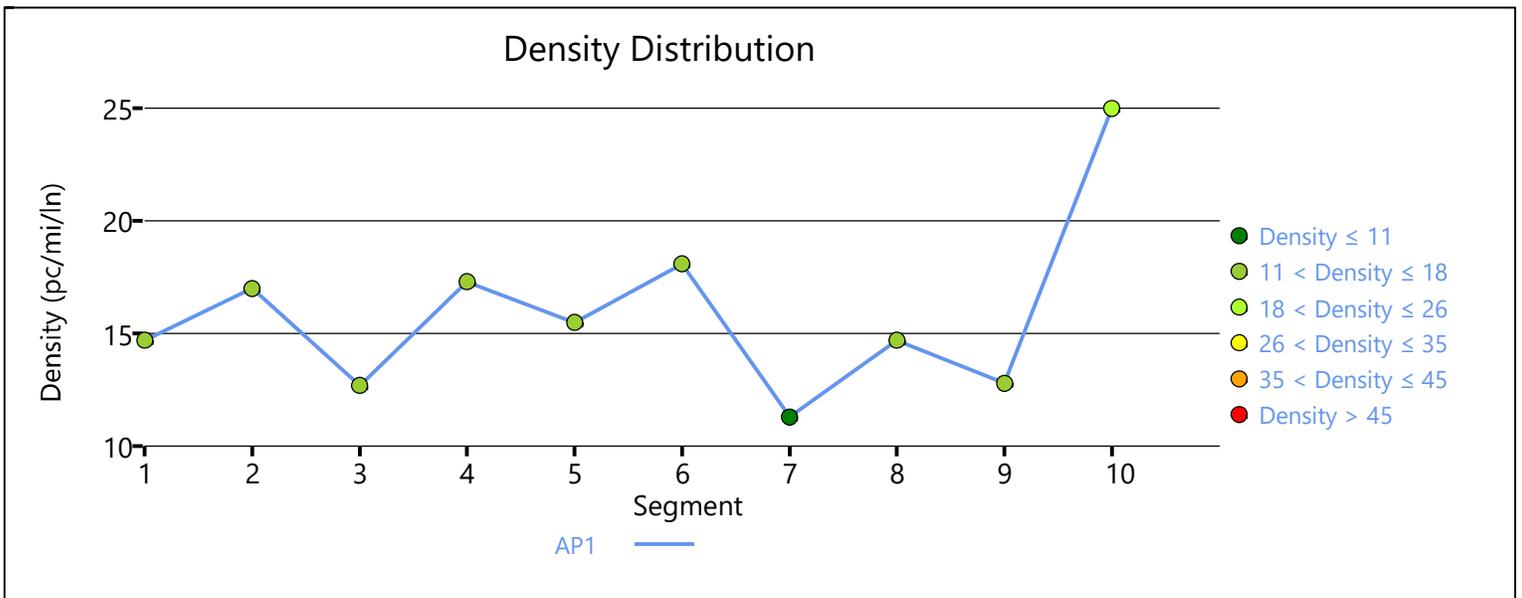
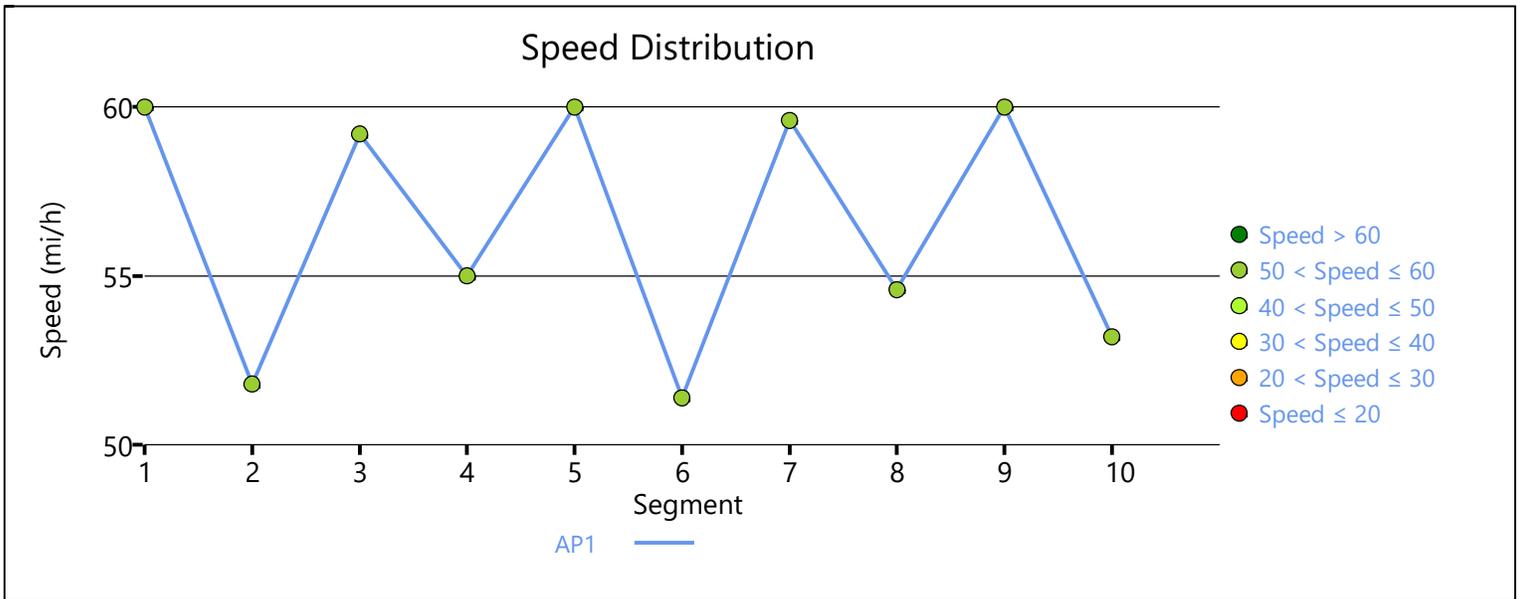
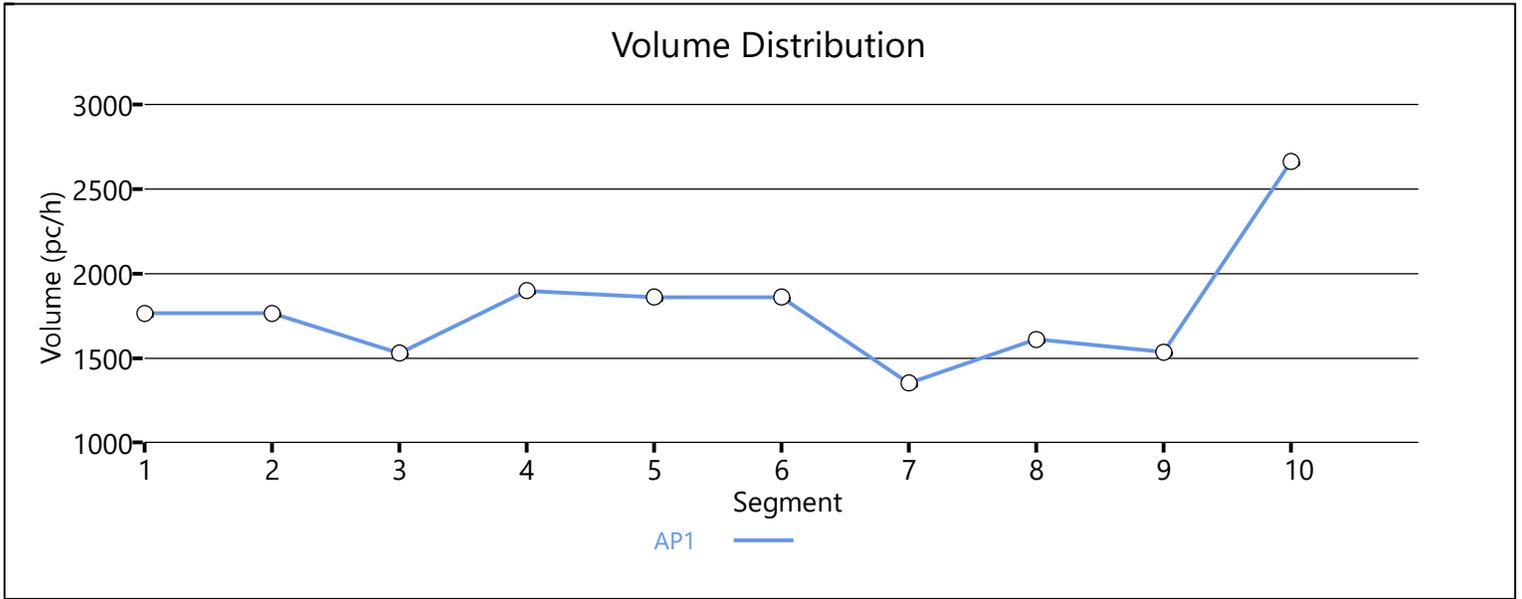
Space Mean Speed, mi/h	58.2	Density, veh/mi/ln	13.7
Average Travel Time, min	5.90	Density, pc/mi/ln	15.0

Messages

WARNING 1 Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and end of the facility.

Comments





	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.73	0.805	0.692	920	210	4600	2000	0.20	0.10	52.0	52.0	8.8	7.9	A

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.829	728	4600	0.16	59.7	6.1	A

Segment 5: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.93	0.829	0.711	1095	367	4600	2000	0.24	0.18	54.7	54.7	10.0	10.4	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.792	1086	4600	0.24	60.0	9.0	A

Segment 7: Diverge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.89	0.792	0.750	1086	241	4600	2000	0.24	0.12	51.9	51.9	10.5	8.4	A

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.797	874	4600	0.19	59.4	7.3	A

Segment 9: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.80	0.797	0.733	1118	244	4600	2000	0.24	0.12	55.1	55.1	10.1	8.8	A

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.787	1104	4600	0.24	60.0	9.2	A

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1171	1000	0.58	58.3	8.7	7.0	5.90	A

Facility Overall Results

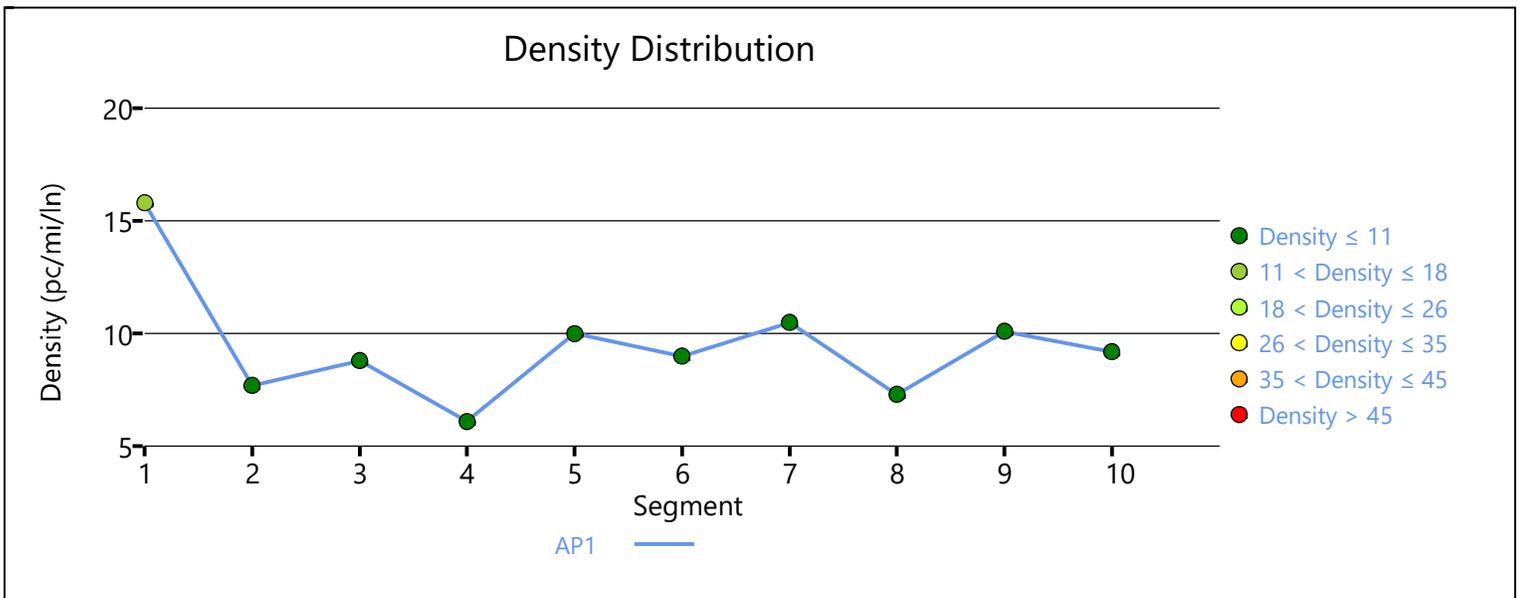
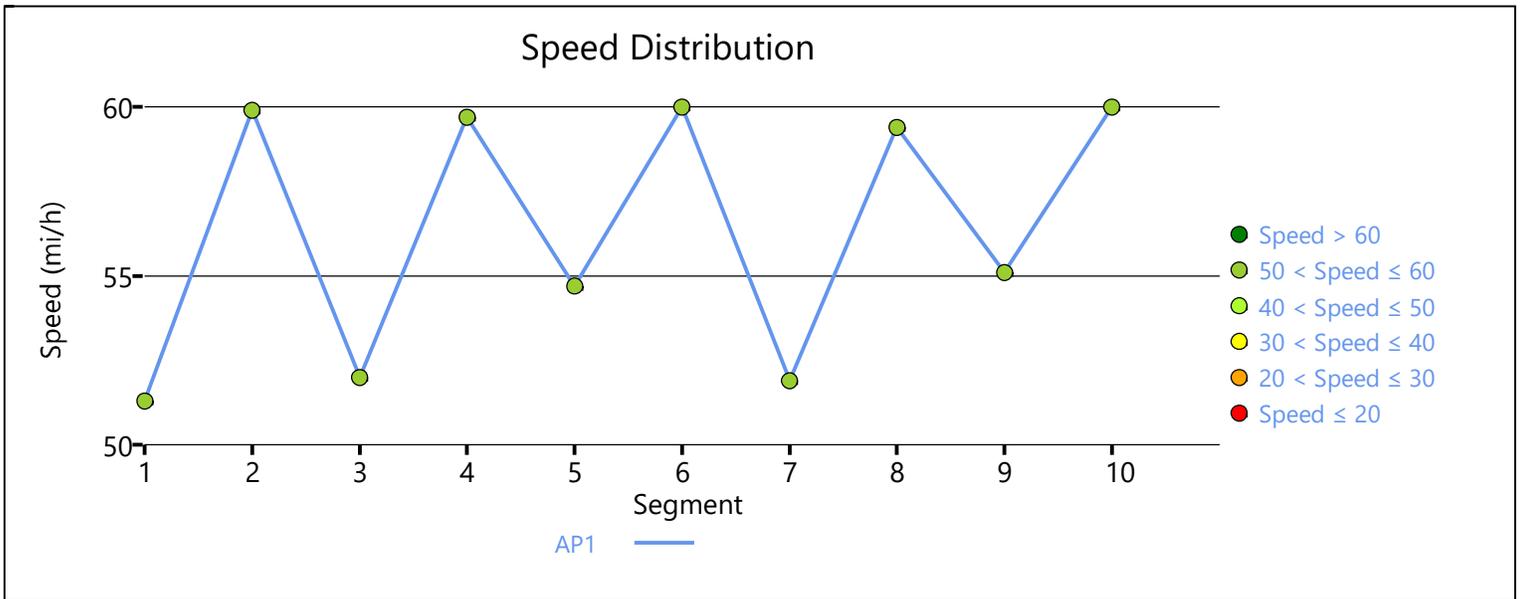
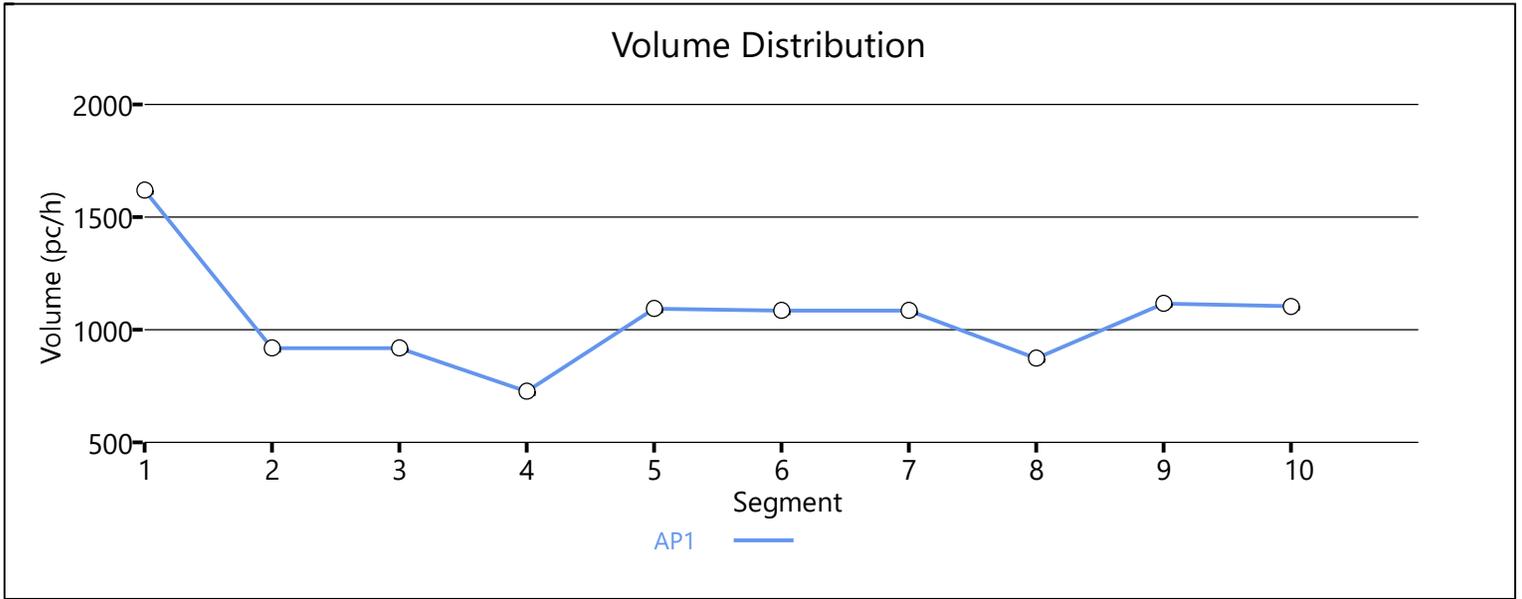
Space Mean Speed, mi/h	58.3	Density, veh/mi/ln	7.0
Average Travel Time, min	5.90	Density, pc/mi/ln	8.7

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments



	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.87	0.950	0.856	1939	302	4600	2000	0.42	0.15	51.8	51.8	18.7	16.7	B

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.966	1621	4600	0.35	59.7	13.5	B

Segment 5: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.92	0.966	0.778	2449	828	4600	2000	0.53	0.41	54.1	54.1	22.6	20.8	C

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.902	2454	4600	0.53	60.0	20.4	C

Segment 7: Diverge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.86	0.902	0.831	2454	239	4600	2000	0.53	0.12	51.9	51.9	23.6	20.1	C

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	2235	4600	0.49	59.4	18.6	C

Segment 9: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.90	0.909	0.913	2700	465	4600	2000	0.59	0.23	54.2	54.2	24.9	21.1	C

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	2682	4600	0.58	60.0	22.4	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3068	2800	1.57	58.2	19.9	18.3	5.90	C

Facility Overall Results

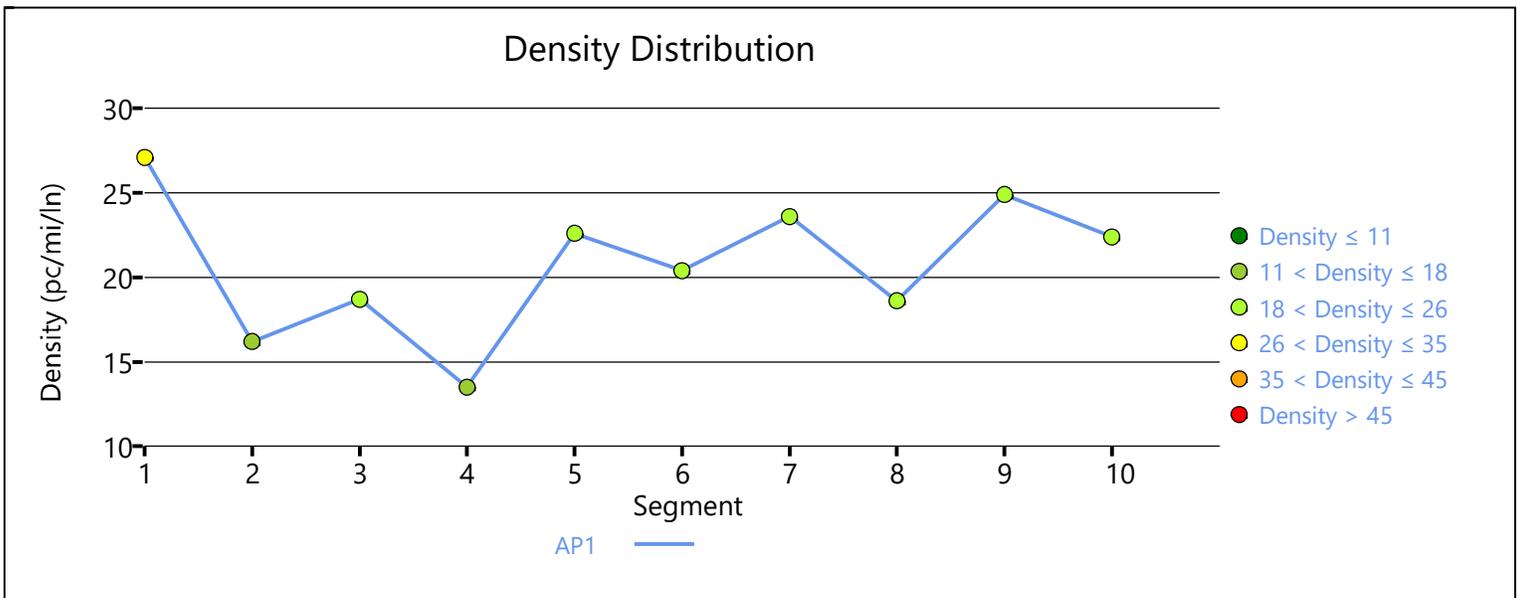
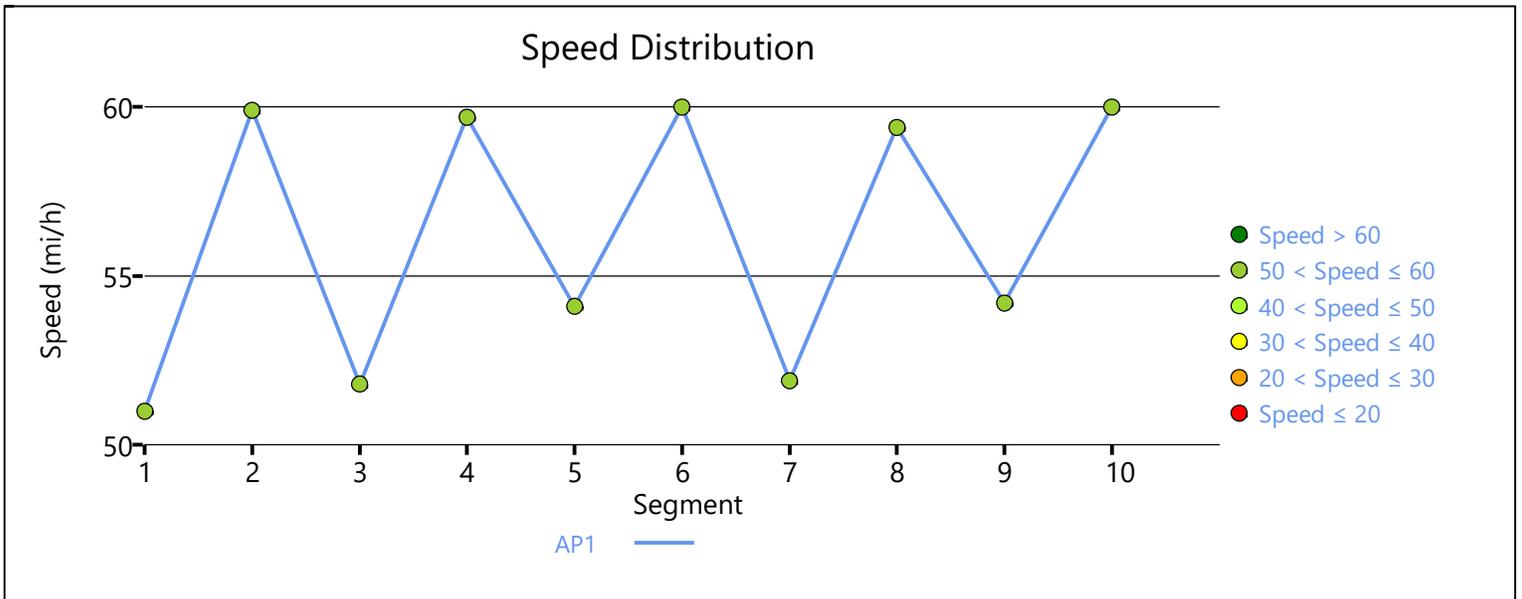
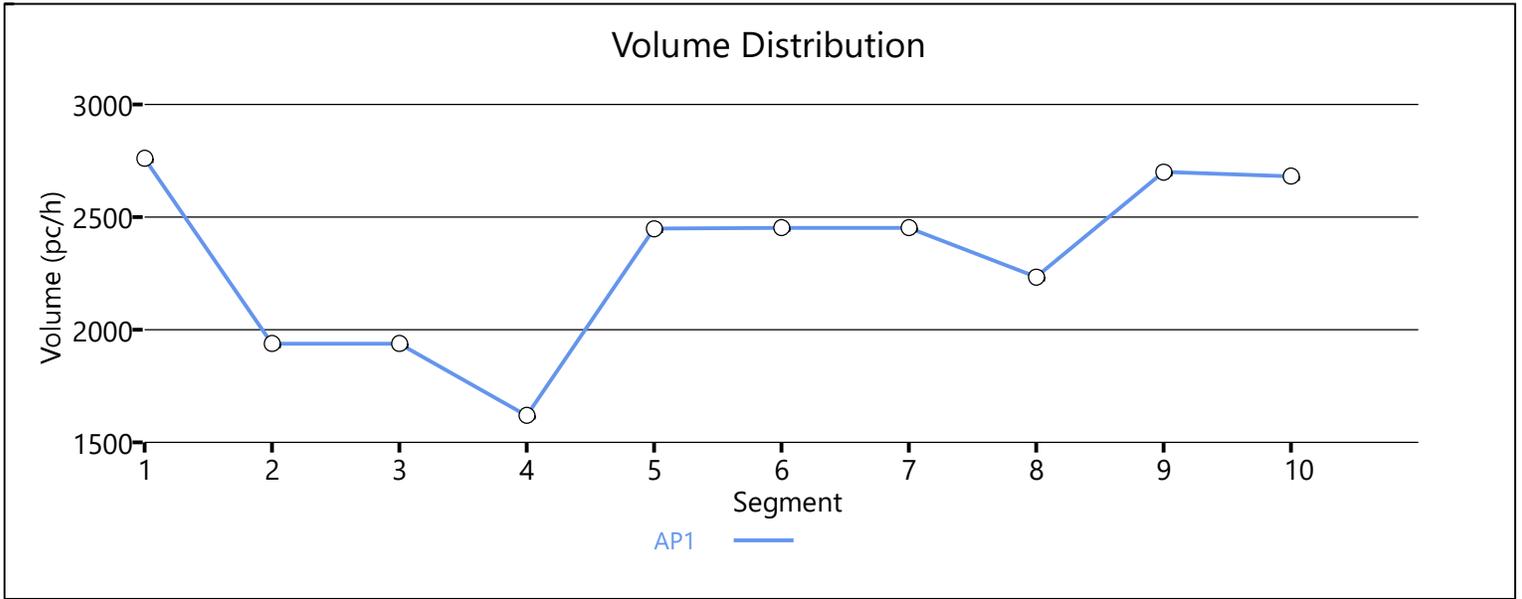
Space Mean Speed, mi/h	58.2	Density, veh/mi/ln	18.3
Average Travel Time, min	5.90	Density, pc/mi/ln	19.9

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments



	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.73	0.805	0.692	1085	245	4600	2000	0.24	0.12	51.9	51.9	10.5	9.4	A

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.829	859	4600	0.19	59.7	7.2	A

Segment 5: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.93	0.829	0.711	1284	425	4600	2000	0.28	0.21	54.7	54.7	11.7	11.9	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.792	1274	4600	0.28	60.0	10.6	A

Segment 7: Diverge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.90	0.89	0.792	0.750	1274	262	4600	2000	0.28	0.13	51.9	51.9	12.3	10.0	A

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.797	1045	4600	0.23	59.4	8.7	A

Segment 9: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.88	0.80	0.797	0.733	1325	280	4600	2000	0.29	0.14	55.0	55.0	12.0	10.4	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.787	1310	4600	0.28	60.0	10.9	A

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1380	1180	0.69	58.3	10.3	8.2	5.90	A

Facility Overall Results

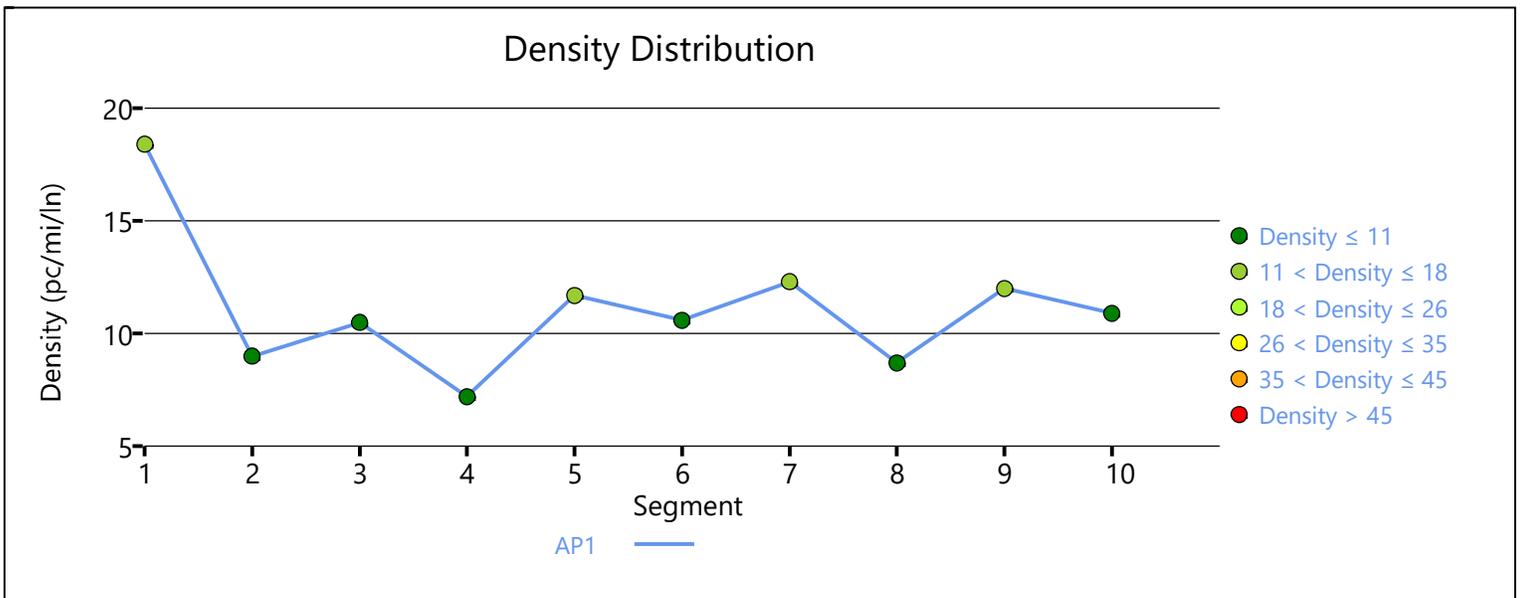
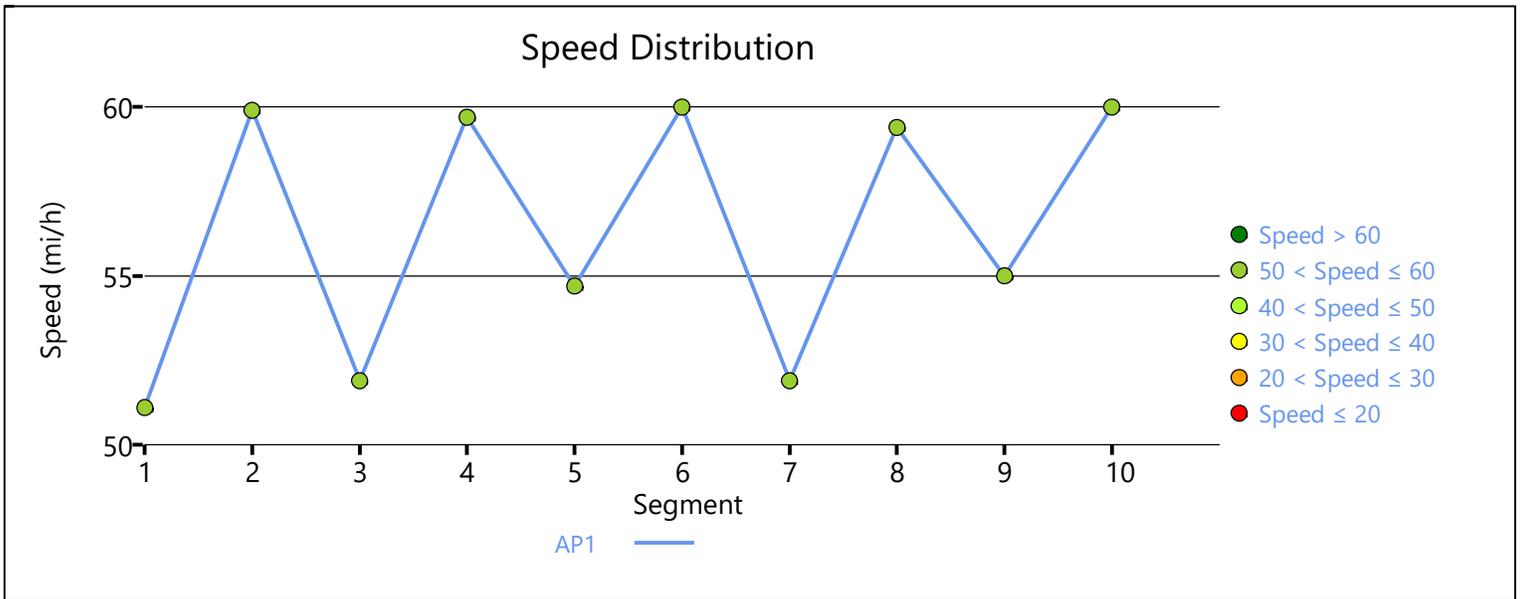
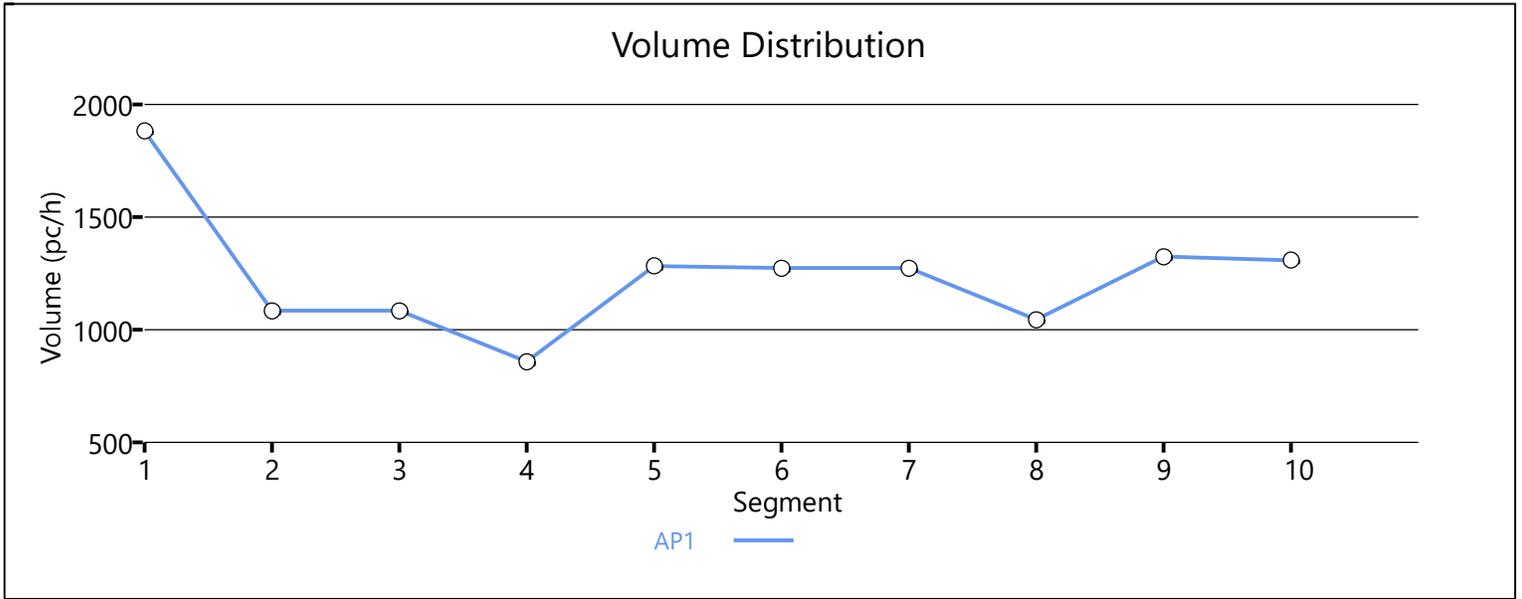
Space Mean Speed, mi/h	58.3	Density, veh/mi/ln	8.2
Average Travel Time, min	5.90	Density, pc/mi/ln	10.3

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments



	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.87	0.950	0.856	2249	350	4600	2000	0.49	0.18	51.7	51.7	21.8	19.4	B

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.966	1881	4600	0.41	59.7	15.7	B

Segment 5: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.92	0.966	0.778	2846	965	4600	2000	0.62	0.48	53.7	53.7	26.5	23.8	C

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.902	2851	4600	0.62	60.0	23.8	C

Segment 7: Diverge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.86	0.902	0.831	2851	274	4600	2000	0.62	0.14	51.8	51.8	27.5	23.6	C

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	2599	4600	0.57	59.4	21.7	C

Segment 9: Merge

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.90	0.909	0.913	3119	520	4600	2000	0.68	0.26	53.7	53.7	29.0	24.3	C

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	3099	4600	0.67	60.0	25.8	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3557	3248	1.89	58.1	23.1	21.3	5.90	C

Facility Overall Results

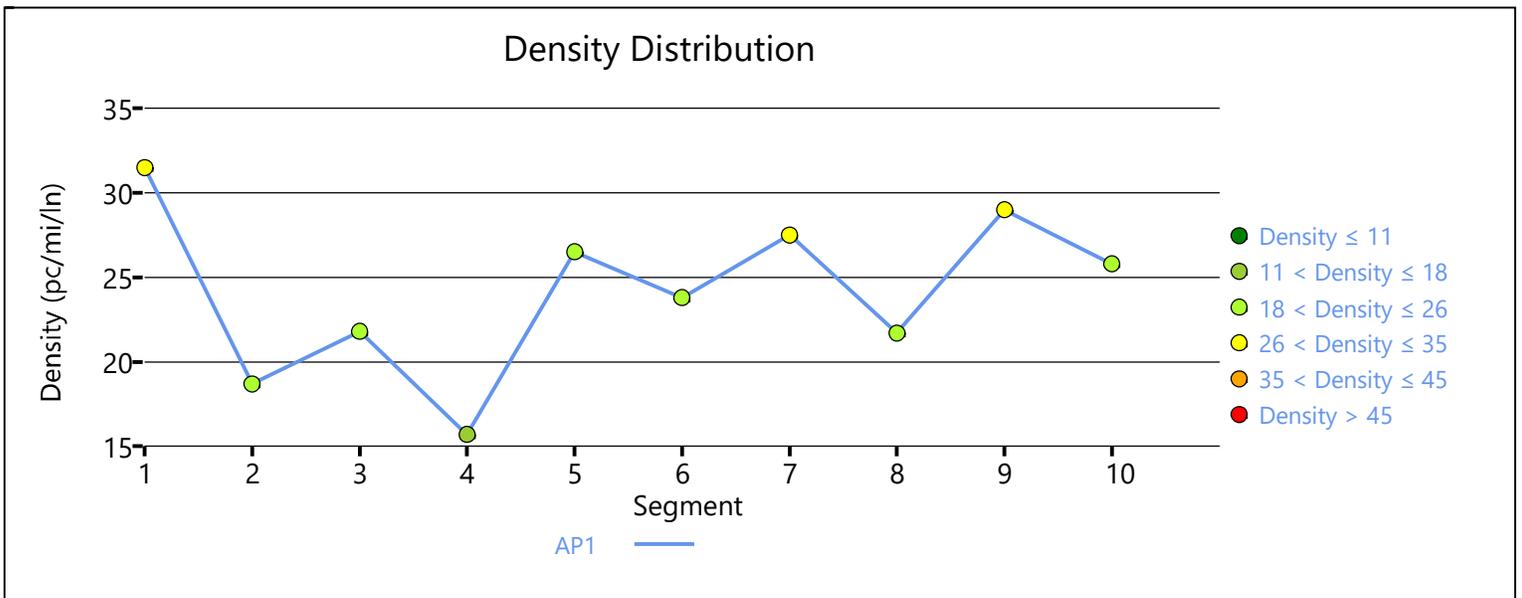
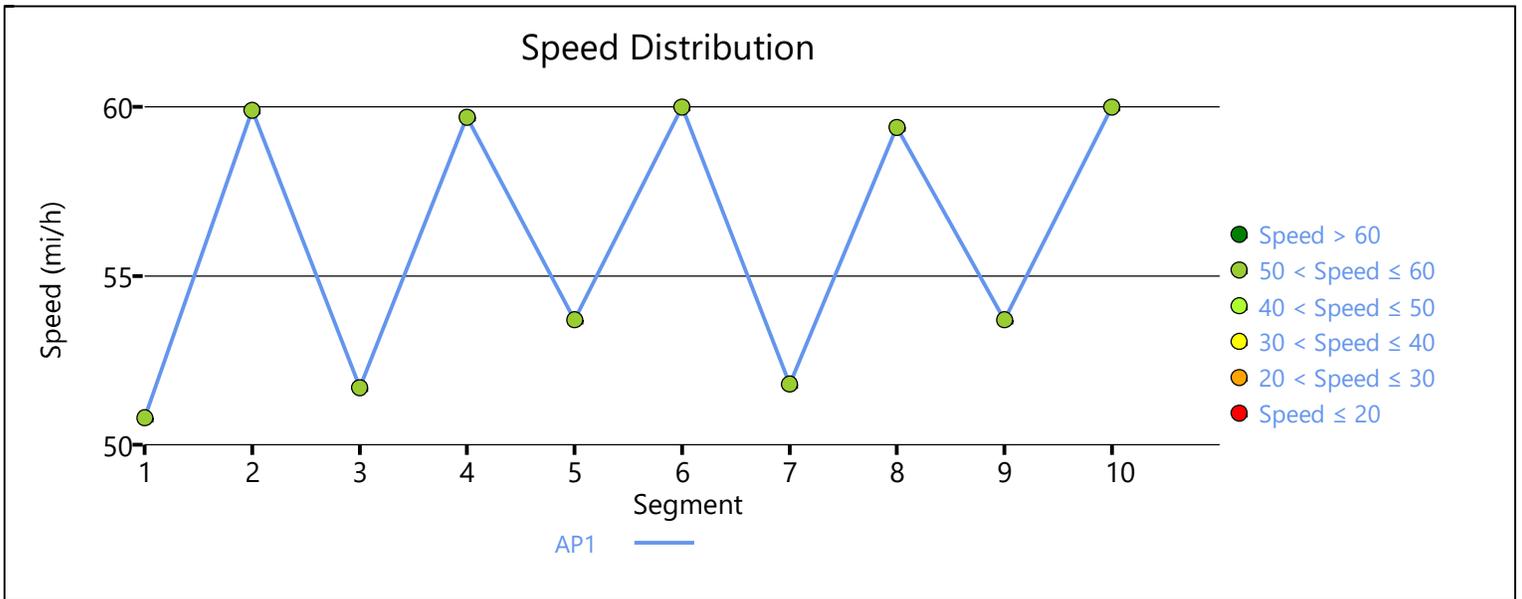
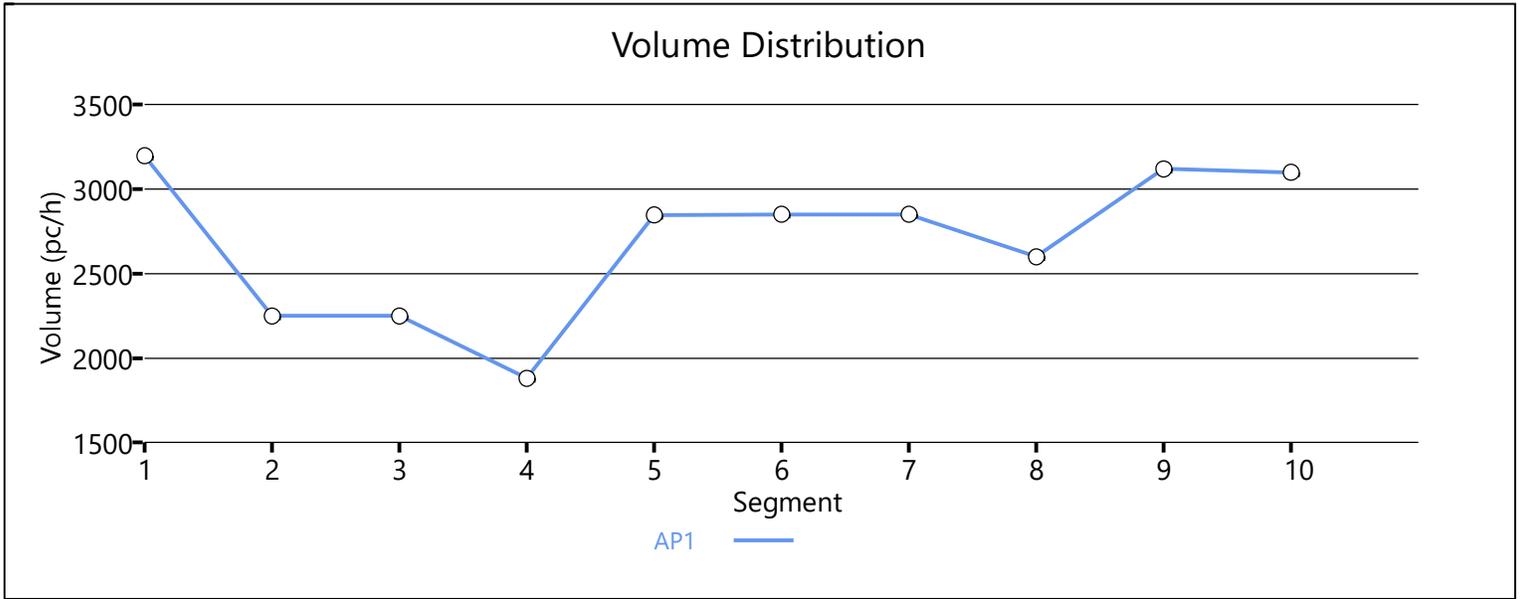
Space Mean Speed, mi/h	58.1	Density, veh/mi/ln	21.3
Average Travel Time, min	5.90	Density, pc/mi/ln	23.1

Messages

WARNING 1	Beginning and ending the facility with a basic freeway segment is highly recommended. Use caution when interpreting results of a Freeway Facility without a basic segment bounding the beginning and
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end of the facility.

Comments

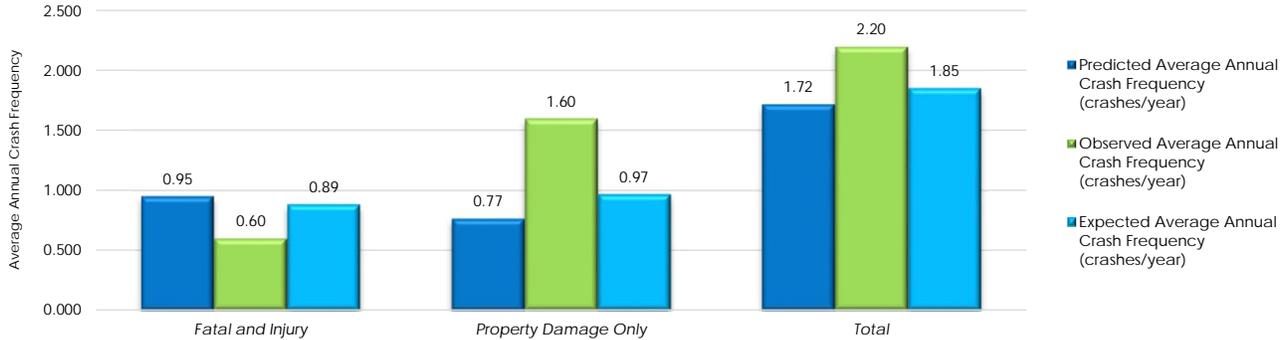


Appendix G
Highway Safety Manual
Analysis

Project Safety Performance Summary Report

Project Description SR 1 Sec 210 Reconstruction
 Date 12/16/2022
 Analysis Year 2022
 Analysis Type Site Level Analysis
 Facility Type(s) Urban/Suburban Collectors

Summary of Average Safety Performance for the Project (crashes/year)



Project Totals	Fatal and Injury Crashes	Property Damage Only Crashes	Total Crashes
Predicted Average Annual Crash Frequency	0.95	0.77	1.72
Observed Average Annual Crash Frequency	0.60	1.60	2.20
Expected Average Annual Crash Frequency	0.89	0.97	1.85
Potential for Safety Improvement (PSI)	-0.07	0.20	0.13

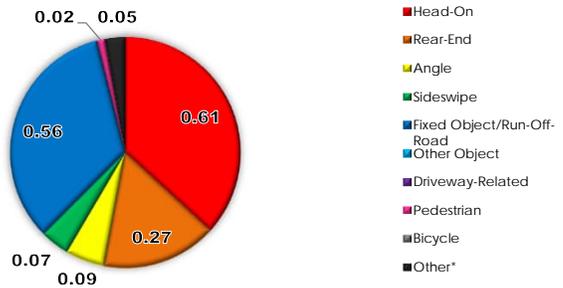
Total Project Summary

Segments	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00
Observed Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00
Expected Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00

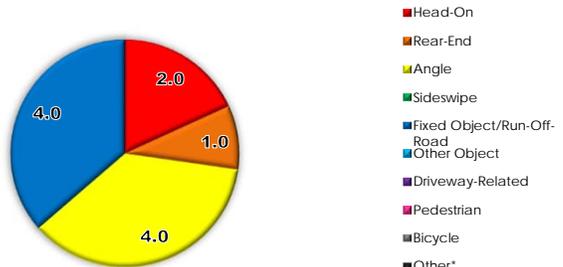
Intersections	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	0.95	0.77	0.00
Observed Average Annual Crash Frequency (crashes/yr)	0.60	1.60	2.20
Expected Average Annual Crash Frequency (crashes/yr)	0.89	0.97	1.85

Total	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	0.95	0.77	1.72
Observed Average Annual Crash Frequency (crashes/yr)	0.60	1.60	2.20
Expected Average Annual Crash Frequency (crashes/yr)	0.89	0.97	1.85

Project Total: Predicted Crashes by Crash Type



Project Total: Observed Crashes by Crash Type

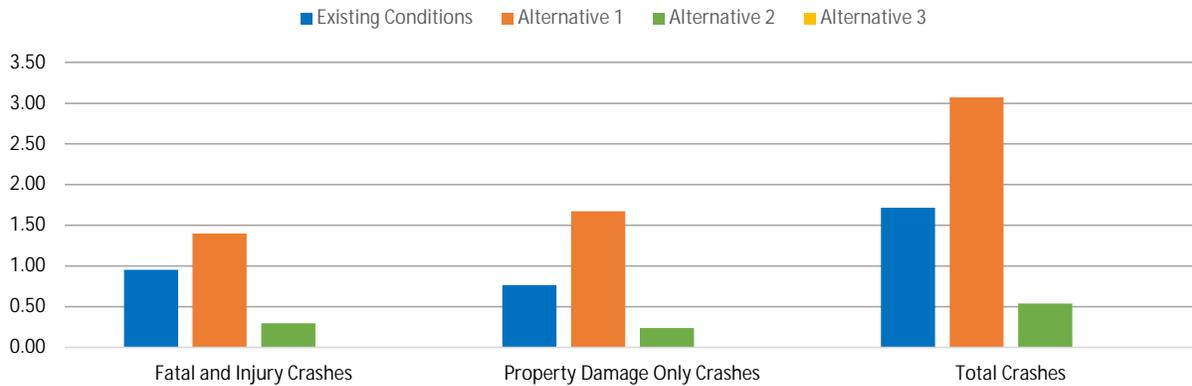


*Note: "Other Crashes" include animal, overturn, parked vehicle, noncollisions, and other single-/multiple-vehicle crashes

Alternatives Analysis - Safety Performance Summary

Project Description SR 1 Sec 210 Reconstruction
 Date 12/16/2022
 Analysis Year 2022
 Analysis Type

Summary of Predicted Crash Performance - Alternative Analysis



Safety Performance Summary

<u>Project Totals</u>	Total Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	1.72	3.07	0.54	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	1.35	-1.18	--

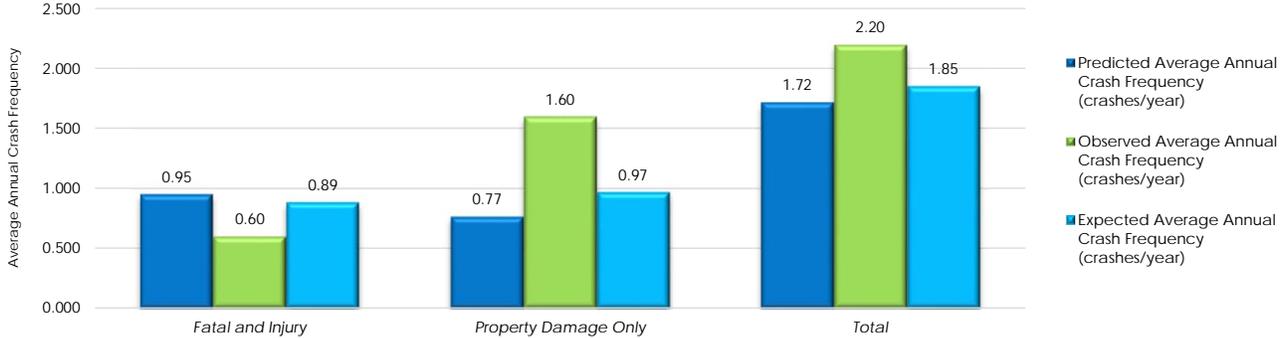
<u>Project Totals</u>	Fatal and Injury Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	0.95	1.40	0.30	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	0.45	-0.65	--

<u>Project Totals</u>	Property Damage Only Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	0.77	1.67	0.24	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	0.91	-0.53	--

Project Safety Performance Summary Report

Project Description SR 1 Sec 210 Reconstruction
 Date 12/16/2022
 Analysis Year 2030
 Analysis Type Site Level Analysis
 Facility Type(s) Urban/Suburban Collectors

Summary of Average Safety Performance for the Project (crashes/year)



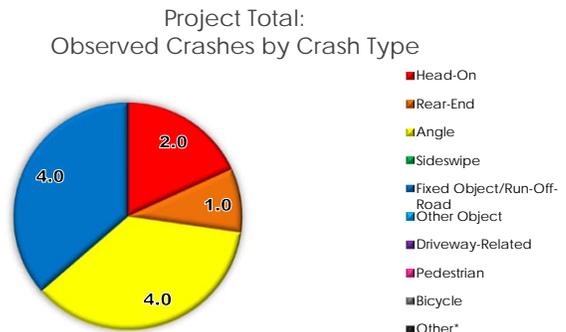
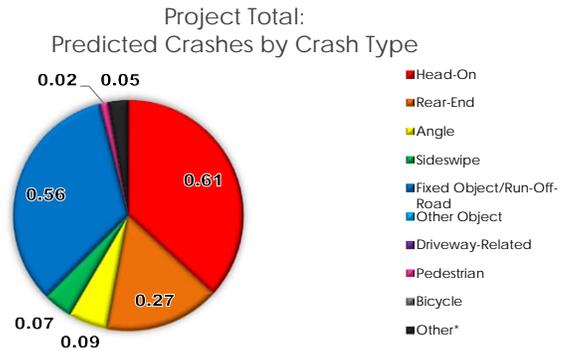
Project Totals	Fatal and Injury Crashes	Property Damage Only Crashes	Total Crashes
Predicted Average Annual Crash Frequency	0.95	0.77	1.72
Observed Average Annual Crash Frequency	0.60	1.60	2.20
Expected Average Annual Crash Frequency	0.89	0.97	1.85
Potential for Safety Improvement (PSI)	-0.07	0.20	0.13

Total Project Summary

Segments	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00
Observed Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00
Expected Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00

Intersections	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	0.95	0.77	0.00
Observed Average Annual Crash Frequency (crashes/yr)	0.60	1.60	2.20
Expected Average Annual Crash Frequency (crashes/yr)	0.89	0.97	1.85

Total	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	0.95	0.77	1.72
Observed Average Annual Crash Frequency (crashes/yr)	0.60	1.60	2.20
Expected Average Annual Crash Frequency (crashes/yr)	0.89	0.97	1.85

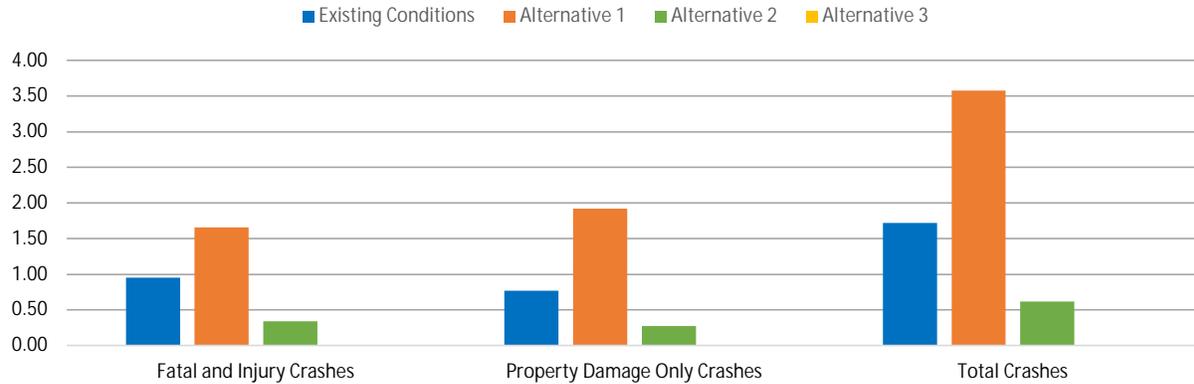


*Note: "Other Crashes" include animal, overturn, parked vehicle, noncollisions, and other single-/multiple-vehicle crashes

Alternatives Analysis - Safety Performance Summary

Project Description SR 1 Sec 210 Reconstruction
 Date 12/16/2022
 Analysis Year 2030
 Analysis Type

Summary of Predicted Crash Performance - Alternative Analysis



Safety Performance Summary

<u>Project Totals</u>	Total Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	1.72	3.58	0.61	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	1.86	-1.11	--

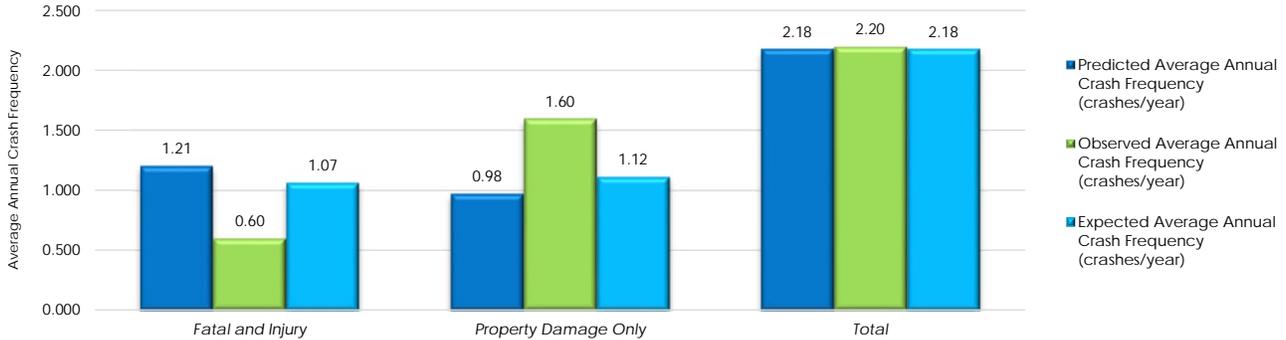
<u>Project Totals</u>	Fatal and Injury Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	0.95	1.66	0.34	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	0.71	-0.61	--

<u>Project Totals</u>	Property Damage Only Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	0.77	1.92	0.27	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	1.15	-0.49	--

Project Safety Performance Summary Report

Project Description SR 1 Sec 210 Reconstruction
 Date 12/16/2022
 Analysis Year 2050
 Analysis Type Site Level Analysis
 Facility Type(s) Urban/Suburban Collectors

Summary of Average Safety Performance for the Project (crashes/year)



Project Totals	Fatal and Injury Crashes	Property Damage Only Crashes	Total Crashes
Predicted Average Annual Crash Frequency	1.21	0.98	2.18
Observed Average Annual Crash Frequency	0.60	1.60	2.20
Expected Average Annual Crash Frequency	1.07	1.12	2.18
Potential for Safety Improvement (PSI)	-0.14	0.14	0.00

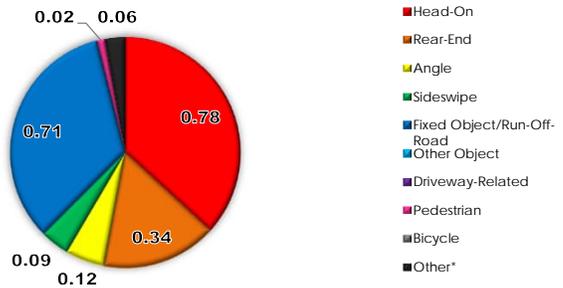
Total Project Summary

Segments	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00
Observed Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00
Expected Average Annual Crash Frequency (crashes/yr)	0.00	0.00	0.00

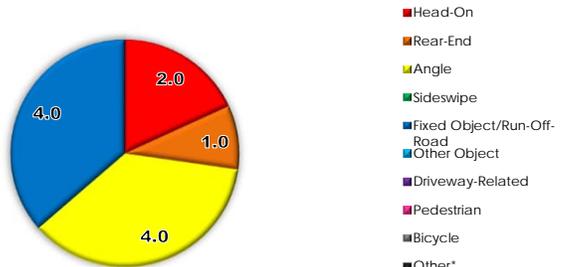
Intersections	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	1.21	0.98	0.00
Observed Average Annual Crash Frequency (crashes/yr)	0.60	1.60	2.20
Expected Average Annual Crash Frequency (crashes/yr)	1.07	1.12	2.18

Total	Fatal and Injury	Property Damage Only	Total
Predicted Average Annual Crash Frequency (crashes/yr)	1.21	0.98	2.18
Observed Average Annual Crash Frequency (crashes/yr)	0.60	1.60	2.20
Expected Average Annual Crash Frequency (crashes/yr)	1.07	1.12	2.18

Project Total: Predicted Crashes by Crash Type



Project Total: Observed Crashes by Crash Type

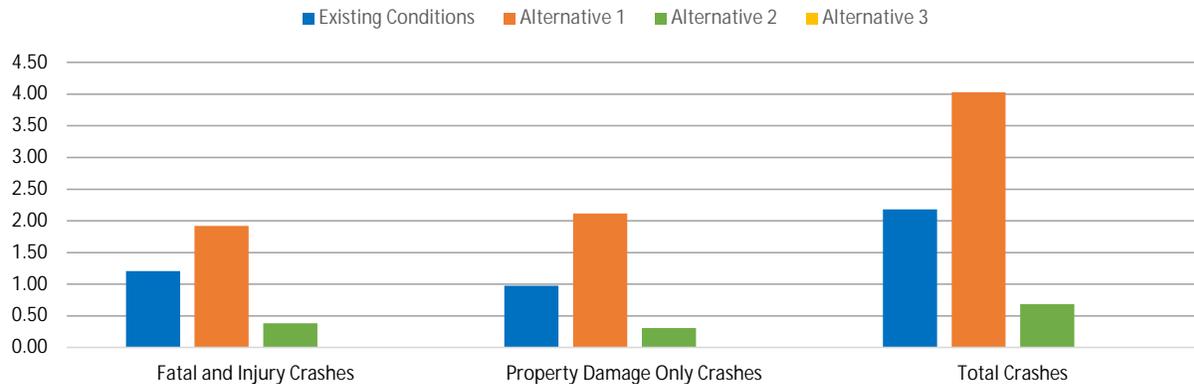


*Note: "Other Crashes" include animal, overturn, parked vehicle, noncollisions, and other single-/multiple-vehicle crashes

Alternatives Analysis - Safety Performance Summary

Project Description SR 1 Sec 210 Reconstruction
 Date 12/16/2022
 Analysis Year 2050
 Analysis Type

Summary of Predicted Crash Performance - Alternative Analysis



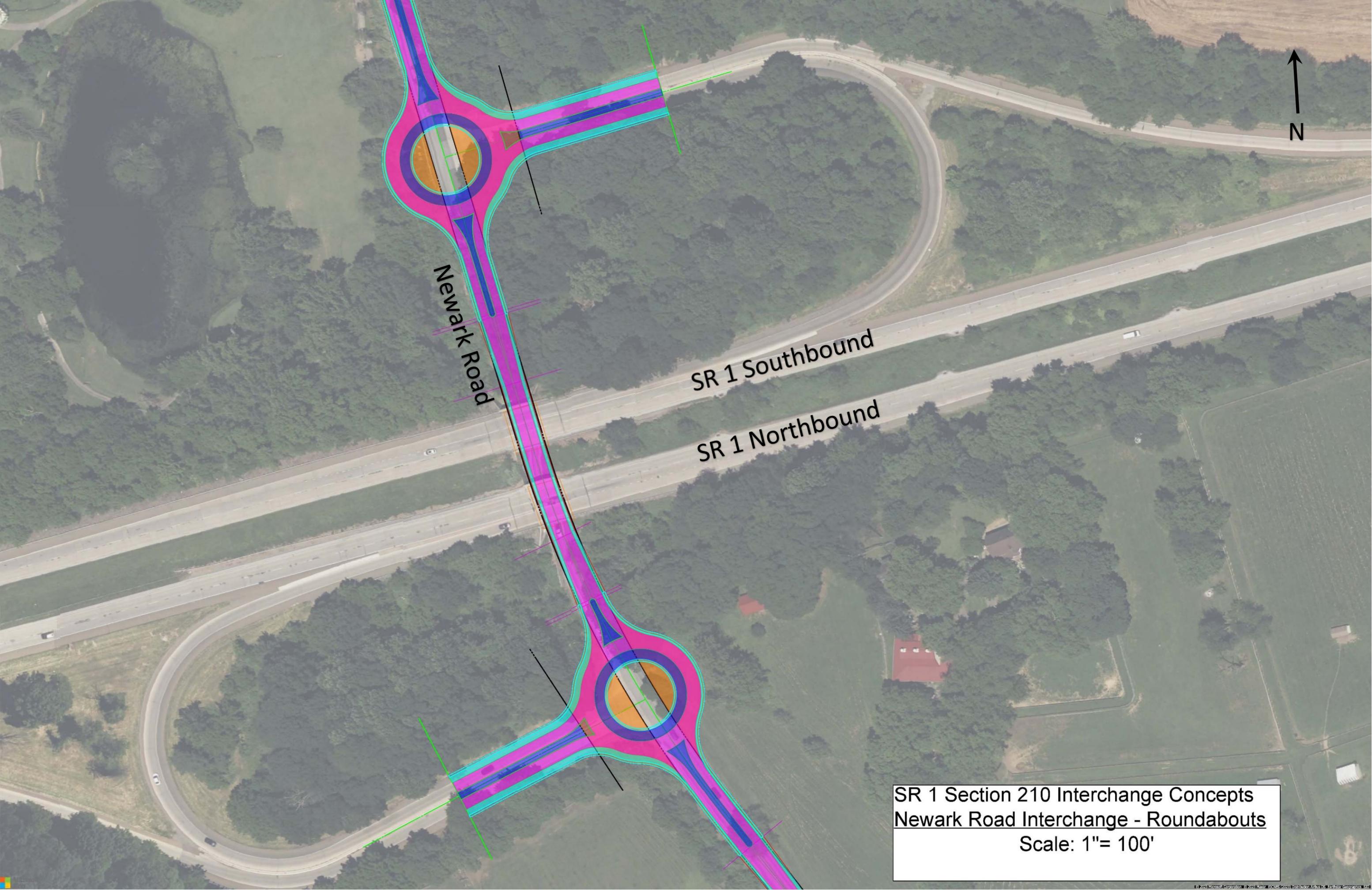
Safety Performance Summary

<u>Project Totals</u>	Total Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	2.18	4.03	0.68	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	1.85	-1.50	--

<u>Project Totals</u>	Fatal and Injury Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	1.21	1.92	0.38	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	0.71	-0.83	--

<u>Project Totals</u>	Property Damage Only Crashes			
	<i>Existing Conditions</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Predicted Average Annual Crash Frequency	0.98	2.12	0.31	--
Expected Average Annual Crash Frequency	--	--	--	--
Change from Existing Conditions	--	1.14	-0.67	--

Appendix H
Alternative Schematics

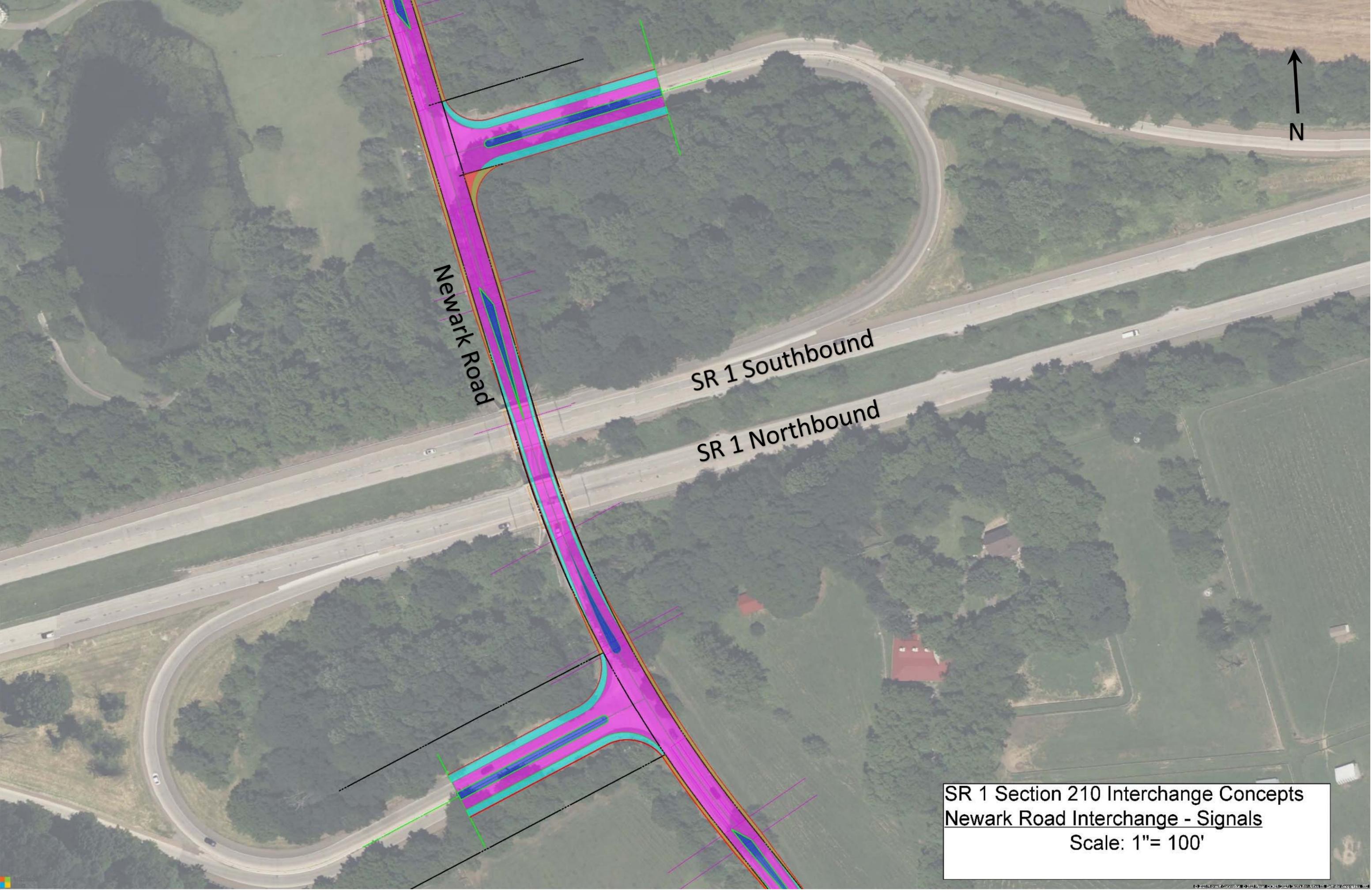


Newark Road

SR 1 Southbound

SR 1 Northbound

SR 1 Section 210 Interchange Concepts
Newark Road Interchange - Roundabouts
Scale: 1"= 100'



Newark Road

SR 1 Southbound

SR 1 Northbound

SR 1 Section 210 Interchange Concepts
Newark Road Interchange - Signals
Scale: 1"= 100'

Appendix I
Intersection Control
Evaluation (ICE) Forms
and Tools

**PennDOT
ICE Form**

Pennsylvania Department of Transportation
 Intersection Control Evaluation (ICE) Form
 Stage I: Screening



To fulfill the requirements of Stage 1 (Screening) of PennDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Engineer (DTE) for the project's location.

Project Information			
Project Name	SR 0001 Section 210 Reconstruction	Project Setting	Urban
Submitted By	Agency/Company	AECOM	Email
Project Purpose and Goals <i>(What is the catalyst for this project and what are the intended outcomes?)</i>	AECOM will develop a Confidential Safety Study evaluating the traffic crash data within the project limits to determine what, if any, existing highway safety concerns are present, and then identify how these safety concerns would be addressed by the proposed project using the design exceptions, if any, and by using full-design criteria. Crash resumes along with homogeneous crash report and crash cluster data will be requested from the district via crash data request forms. Crash data for a period of 5 consecutive most recent years will be requested and analyzed for roadway segments within the project limits.		
Project Setting Description <i>(Describe the area surrounding the intersection)</i>			
County	Chester	Project Locality (Township/Borough/City)	New Garden Township
PennDOT District	District 6	Project Type (select most appropriate)	Corridor Improvement Project
Multimodal Context <i>(Describe pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development pattern)</i>			

Basic Intersection Information							
Major Street							
Major Street Route Number(s)	SR 3033	Major Street Route Name(s)	Newark Rd	SR Segment #	80	SR Offset	528
Primary Functional Classification	Minor Arterial	Secondary Functional Class. (if app.)		Existing AADT	3,526	Existing Control	Two-way Stop-Controlled
Major Street Ownership	Sidewalks are present along: <u>Neither side of the roadway</u>						
Crosswalks?	<input type="checkbox"/>	On-Street Bike Facilities?	<input type="checkbox"/>	Multi-Use Path?	<input type="checkbox"/>	Scheduled Bus Service?	<input type="checkbox"/>
Approach #1	Number of Lanes (Count Shared Lanes as Through):	Left-Turn	Through	Right-Turn			
	AM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn	1	56	
	PM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn	221	154	
Approach #2	Number of Lanes (Count Shared Lanes as Through):	Left-Turn	Through	Right-Turn			
	AM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn	64	142	
	PM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn	105	164	
Minor Street							
Minor Street Route Number(s)	SR 0001 Ramps	Minor Street Route Name(s)	SR 0001 On/Off Ramp	SR Segment #		SR Offset	
Primary Functional Classification	Principal Arterial	Secondary Functional Class. (if app.)		Existing AADT (if available)			
Minor Street Ownership	Sidewalks are present along: <u>Neither side of the roadway</u>						
Crosswalks?	<input type="checkbox"/>	On-Street Bike Facilities?	<input type="checkbox"/>	Multi-Use Path?	<input type="checkbox"/>	Scheduled Bus Service?	<input type="checkbox"/>
Approach #1	Number of Lanes (Count Shared Lanes as Through):	Left-Turn	Through	Right-Turn			
	AM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn	1	48	
	PM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn	59	38	
Approach #2	Number of Lanes (Count Shared Lanes as Through):	Left-Turn	Through	Right-Turn			
	AM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn	132		
	PM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn			
Approach #3	Number of Lanes (Count Shared Lanes as Through):	Left-Turn	Through	Right-Turn			
	AM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn			
	PM Peak Hour Traffic Volumes:	Left-Turn	Through	Right-Turn			

Crash History (Existing Intersections Only)	
Append the most recent five-years of crash data for the intersection from the CDART. If the crash data evidences any issues relating to safety performance, discuss briefly here:	
<p>The most recent five (5) year crash data evidenced four angle crashes occurred between major and minor street movements. Three of these crashes occurred at the SR 0001 Southbound Ramp intersection (stop-controlled) while the other one occurred at the SR 0001 Northbound Ramp intersection (stop-controlled). There were four hit fixed object crashes, two head-on crashes, and one rear-end crash at the SR 0001 Southbound Ramp intersection. All crashes had contributing driver actions including driving under the influence, speeding, improper or careless turn, or proceeding without clearance.</p>	

Screening Evaluation			
Provide a brief justification as to why each of the following control strategies should be advanced or not. Justification should consider potential environmental impacts.			
Note: FHWA's CAP-X Tool is helpful for assessing the viability of alternative intersection forms.			
Control Strategy	Strategy Viable?	Justification	Strategy to be Advanced?
Two-way Stop-Controlled	Yes	As the existing control strategy, a two-way stop-controlled intersections should only be considered "viable" if no other intersection control strategies are anticipated to improve operational and safety performance.	Yes
All-way Stop-Controlled	No	Given the existing traffic volumes on the major approaches, converting the existing intersections to all-way stop-controlled would increase control delays at the intersections to unacceptable levels.	No
Signalized Control	Yes	Introducing a traffic signal at the study intersections could potentially help reduce delays to minor street movements.	Yes
Roundabout	Yes	Introducing a roundabout to the study intersections could potentially help reduce delays and alleviate the likelihood of several crash types between the major and minor street movements.	Yes
Median U-Turn	No	The existing major and minor street movements are two-lane roadways with no median. To develop this intersection type, significant widening would be required near the ramp termini as well as reconstruction of the bridge between intersections.	No
Restricted Crossing U-Turn (RCUT) Signalized	No	Given the relatively low traffic volumes and existing geometry, introducing two new signals and widening the roadway to develop a signalized RCUT intersection would likely have a low cost-benefit ratio.	No
Restricted Crossing U-Turn (RCUT) Unsignalized	No	The existing major and minor street movements are two-lane roadways with no median. To develop this intersection type, significant widening would be required near the ramp termini as well as reconstruction of the bridge between intersections.	No
Jughandle	No	The operational and safety performance issues identified at the study intersections do not stem from major street left-turns.	No
Displaced Left-Turn	No	This control strategy is not applicable given the study intersection contains three approaches.	No
Continuous Green Tee	No	The existing major and minor street movements are two-lane roadways with no median. To develop this intersection type, significant widening would be required near the ramp termini as well as reconstruction of the bridge between intersections.	No
Quadrant Roadway	No	The operational and safety performance issues identified at the study intersections do not stem from major street left-turns.	No
Other			

Resolution			
<i>To be filled out by PennDOT District Traffic Engineer or designee only.</i>			
Project Determination	Multiple Viable Alternatives Identified: Continue to Stage 2		
Comments			
DTE or Designee Name (Type)	Signature	Date	

Pennsylvania Department of Transportation
 Intersection Control Evaluation (ICE) Form
 Stage 2: Initial Control Strategy Assessment



To fulfill the requirements of Stage 2 (Intersection Control Strategy) of PennDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Engineer (DTE) for the project's location.

Project Information		
Project Name	SR 0001 Section 210 Reconstruction	Project ICE Reference Number
Submitted By	Agency/Company	Email
AECOM		
List all viable intersection control strategies identified in Phase 1 (Screening):		
Two-way Stop-Controlled	Signalized Control	Roundabout

Operational Analysis								
Summarize the results of the peak hour analysis performed for each control strategy. Select analysis year based on guidance in the ICE procedures document.								
Overall Intersection Performance								
Opening Year								
Control Strategy	Analysis Year 2030		Delay (sec.)	All queues accommodated?	Peak Hour Analyzed		Delay (sec.)	All queues accommodated?
	Peak Hour Analyzed	Weekday AM Peak			Weekday PM Peak	V/C		
Two-way Stop-Controlled	A		5.5	Yes	A		8.4	Yes
Signalized Control	B		11.6	Yes	B		12.6	No
Roundabout	A		6.3	Yes	A		8.0	Yes
Design Year								
Control Strategy	Analysis Year 2050		Delay (sec.)	All queues accommodated?	Peak Hour Analyzed		Delay (sec.)	All queues accommodated?
	Peak Hour Analyzed	Weekday AM Peak			Weekday PM Peak	V/C		
Two-way Stop-Controlled	A		7.5	Yes	C		21.4	Yes
Signalized Control	B		12.6	Yes	B		13.3	No
Roundabout	A		7.0	Yes	A		9.4	Yes
Provide any additional discussion necessary regarding the results of the operational analysis:								

Costs					
Remaining cognizant of the current level of detail of each control strategy's conceptual design, provide a cost estimate for each. You may want to account for preliminary engineering, required right-of-way acquisitions, construction, and a contingency.					
Control Strategy	Cost (\$)	Estimate Includes:		Control Strategy	Cost (\$)
Two-way Stop-Controlled	\$0	PE, ROW, Construction, Contingency			
Signalized Control	\$2,415,838	PE, ROW, & Construction			
Roundabout	\$2,414,828	PE, ROW, & Construction			

Safety Performance				
Apply the PennDOT HSM Analysis Tool and provide the "Safety B/C" ratio provided by the tool's output. You may wish to append the complete output to this form. For intersection types not accommodated in the tool, manually apply crash modification factors detailed in the ICE policy document or qualitatively describe safety impacts.				
Control Strategy	Anticipated Impact on Safety Performance	Predicted Total Crashes	Predicted Fatal & Injury Crashes	Safety B/C
Two-way Stop-Controlled	No anticipated changes to safety performance.	1.72	0.95	1.00
Signalized Control	Installing a traffic signal will reduce overall crashes but increase rear-end crashes, etc.	3.07	1.40	Control Strategy not preferred.
Roundabout	Installing a roundabout will reduce overall crashes.	0.54	0.30	1.77

Multimodal Accommodations				
Note the existing/anticipated level of pedestrian/bicyclist activity at the study intersection during the peak hours of the typical day.				
	AM Peak Hour		PM Peak Hour	
	Major Street	Minor Street	Major Street	Minor Street
# of ped. crossings (both approaches, if app.):				
# of bicyclists (both approaches, if app.):				
Summarize the ability of each viable control strategy to accommodate the existing/anticipated level of:				
Control Strategy	Pedestrians and Bicycles		Transit Services	Freight Needs
Two-way Stop-Controlled	No existing or anticipated pedestrian and bicycle facilities in site vicinity		No existing or anticipated transit services in site vicinity	
Signalized Control	No existing or anticipated pedestrian and bicycle facilities in site vicinity		No existing or anticipated transit services in site vicinity	
Roundabout	No existing or anticipated pedestrian and bicycle facilities in site vicinity		No existing or anticipated transit services in site vicinity	

Environmental, Utility, and Right-of-Way Impacts	
Summarize any issues related to environmental, utility, or right-of-way (to include relocations) impacts specific to each control strategy.	
Two-way Stop-Controlled	None. This is the existing control strategy and no improvements would be required.
Signalized Control	Minimal potential stream and wetland impacts. Right-of-way impacts <0.25 acres total to approximately 1 - 2 properties. No total property takes. Minimal overhead utility impacts.
Roundabout	Moderate potential stream and wetland impacts. Right-of-way impacts between 0.75 - 1.0 acres total to approximately 4 properties. No total property takes. Moderate overhead utility impacts.

Public Input/Feedback	
Summarize public input received or any stakeholder considerations regarding the control strategies:	Public meeting to be scheduled at a later date.

Benefit-Cost Analysis		
Apply the PennDOT ICE Tool and provide the "Net Present Value" and "Benefit-Cost Ratio" from the "Output" tab for each control strategy. The "Benefit-Cost Ratio" is only applicable for improvements to an existing intersection.		
Control Strategy	Net Present Value	Benefit-Cost Ratio
Two-way Stop-Controlled	Base Case	-
Signalized Control	\$203,005,370	832.57
Roundabout	\$11,680,692	960.42

Control Strategy Evaluation			
Provide a brief justification as to why each of the following is either viable or not viable. If a single control strategy is recommended, select it as the only control strategy to be advanced.			
Control Strategy	Strategy Viable?	Justification	Strategy to be Advanced?
Two-way Stop-Controlled	No	The roundabout control strategy is anticipated to improve both operations and safety performance substantially compared to the existing two-way stop-control. With the interest of having the SR 0001 Northbound and Southbound Ramp intersections operating under the same control strategy, traffic control is anticipated to improve operations of teh ramp termini. In addition, this control strategy will not adequately accomodate future growth.	No
Signalized Control	Yes	While a traffic signal would be anticipated to operate acceptably under both existing and future design year traffic volumes, the roundabout provides the greatest potential for reducing the crash occurrences at the intersection.	No
Roundabout	Yes	As shown through the application of PennDOT HSM tool, the installation of a single-lane roundabout provides the greatest anticipated reduction to crashes at the intersection. The operational analysis show a roundabout is anticipated to operate acceptably under both existing and future conditions.	Yes

Resolution		
To be filled out by PennDOT District Traffic Engineer or designee only		
Project Determination		
Comments		
DTE or Designee Name	Signature	Date

**PennDOT
ICE Tool**

Organization Information	This sheet provides general project information and analysis type selection.
Organization Information	
Agency:	AECOM
Project Name:	SR 0001 Section 210 Reconstruction SR 3033 Newark Road Interchange
Project Reference:	60663709
Intersection:	SR 0001 at SR 3033 Newark Road
City:	New Garden Township
State:	Pennsylvania
Performing Department or Organization:	PennDOT District 6
Date:	6/28/2023
Analyst:	ASR
Analysis Type	Ramp Terminal Interchange

At-Grade Intersections List

This sheet is used to manage the at-grade intersections list. After entering all inputs, use the "Setup Worksheets" button at the bottom of the tab before proceeding with the ICE analysis.

Enter peak period begin and end times:

	Open Year	Design Year
Operating Cycle	2030	2050
Peak Hour Start	From	To
AM peak	7:15 AM	8:15 AM
PM peak	4:45 PM	5:45 PM
Weekend peak	10:00 AM	11:00 AM

Demand forecasts for the opening year *must* be provided below, and travel time/delay forecasts must be given in the Delay worksheet.

Select Analysis Basis: Weekday Count: Enter dates as "mm/dd/yyyy"
 Weekend Count: Enter dates as "mm/dd/yyyy"

Select facility type: At intersections of varying facilities select the roadway that will be more representative of the volume, or interpolate between values.

Specify total volumes or turning counts?

Total Volumes	(Select from drop-down menu)				
Enter the total entering volume (i.e. sum of turning movement counts) for the peak hours. If data is not available for the weekend peak hour please leave blank.					
Units	Year		Year		
	Opening	Design	Opening	Design	
	2030	2050	2030	2050	
	Intersection 1		Intersection 2		
AM peak hour volume	veh/hr	1,168	1,311	882	994
PM peak hour volume	veh/hr	1,310	1,468	1,108	1,252
Weekend peak hour volume:	veh/hr				
Average annual auto occupancy	Passengers per vehicle	1.0	1.0	1.0	1.0
Average annual % trucks	Average %	2.0%	2.0%	2.0%	2.0%

Select intersection types from the following table to include in the ICE analysis. To include an intersection, select "Yes" in the include column, and to exclude an intersection, select "No" in the include column.

Ramp Terminal Control Strategies				
Control #	Include	Short Name	Description	Notes
1	Yes	D4TrafficSignal	Conventional Traffic Signal	
2	No	D4TrafficSignalAlt	Conventional Traffic Signal (Alt.)	
3	Yes	D4MinorStop	Minor Road (ramp) Stop	
4	No	DDI	Crossover Traffic Signal (of DDI)	
5	No	SPUI	Single-Point Diamond Traffic Signal	
6	Yes	RAB1	1-lane Roundabout	
7	No	RAB2	2-lane Roundabout	
8	No	Other1	Other 1	Safety information must be provided
9	No	Other2	Other 2	Safety information must be provided

Press the "Setup Worksheets" button to create hidden worksheets that compute performance measures for each selected control strategy.

Cost Parameters

This sheet defines the basic cost parameters used in the benefit-cost analysis. You may either use the default values or override the defaults with your own values. Note that all costs must be in the same year dollars, preferably in base year dollars. Consult the Bureau of Labor Statistics web site for latest information on the consumer price index to adjust values to current year: <http://www.bls.gov/cpi/>

Type	Category	Unit valuation	Default value	Override value	Use value	Override date	Notes/References
Existing (Base) year for discounting	N/A	N/A	N/A	2030	2030		All costs will be discounted to the Base Year for Discounting. <i>Enter the year in the "Override Value" column.</i>
Opening Year	N/A	N/A	N/A	2030	2030		
Design Year	N/A	N/A	N/A	2050	2050		
Discount rate	N/A	Percent	0.04		0.04		Typical Value
Value of time	Person (weekday)	\$ per person hour	\$ 18.12		\$ 18.12		2019 TTI Urban Mobility Report
	Person (weekend)	\$ per person hour	\$ 18.12		\$ 18.12		
	Trucks	\$ per truck hour	\$ 52.14		\$ 52.14		
Crashes	Fatal & Injury Crashes	\$ per crash	\$ 422,229		\$ 422,229		PennDOT 2016 data
	Property damage only crashes	\$ per crash	\$ 3,102		\$ 3,102		PennDOT 2016 data

These following values define the planning & construction and the operating & maintenance costs of the control strategy alternatives. A single total cost is required for planning and construction. Default values are provided for all operating & maintenance cost, but can be overridden by the user.

Ramp Terminal Intersections	Total Design & Construction	Total Right of Way Costs	Operating & Maintenance	Signal Retiming	Power	Lighting	Signal Maintenance	Roundabout Landscaping	Other	Other 2	Other 3	Other 4	Other 5
Conventional Traffic Signal	\$ 2,400,838	\$ 15,000	Cost Period Every 3 years	\$ 7,500	\$ 6,000	\$ 1,682	\$ 5,625	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)
Minor Road (ramp) Stop	\$ -	\$ -	Cost Period 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1,682	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)
1-lane Roundabout	\$ 2,327,828	\$ 87,000	Cost Period 1 (yearly)	\$ 1 (yearly)	\$ 1 (yearly)	\$ 1,682	\$ 1 (yearly)	\$ 4,000	\$ 1 (yearly)				

Safety Information

Enter safety information from the PennDOT HSM tool for Minor Road Stop, All Way Stop, and Traffic Signal. Roundabout crashes can be computed with CMFs by specifying the base intersection, the area type, and the number of lanes (see below).

Crashes for DLTs, MUTs, Signalized RCUTs, Green-Ts, and Jughandles are computed by applying the respective CMF to the crash values specified for the traffic signal alternative. Crashes for the Unsignalized RCUTs are computed by applying the respective CMF to the crash values specified for the two-way stop alternative.

Ramp Terminal Intersection	Crash Type	Opening Year	Design Year
Conventional Traffic Signal	Total	3.58	4.03
	Fatal & Injury	1.66	1.92
Minor Road (ramp) Stop	Total	1.72	2.18
	Fatal & Injury	0.95	1.21
1-lane Roundabout	Total	0.61	0.68
	Fatal & Injury	0.34	0.38

CMFs	1-lane Roundabout	Total	-
		Fatal & Injury	-

This table contains the same CMFs as the FHWA SPICE tool. The CMFs are automatically applied to the user inputs for Traffic Signal or Minor Road

Delay Information

Use this sheet to enter the delay information for each of the included control strategies.

				Opening Year						Design Year					
Ramp Terminal Intersections				Intersection 1			Intersection 2			Intersection 1			Intersection 2		
Control Strategy		Delay Type	Units	AM peak	PM peak	Weekend peak	AM peak	PM peak	Weekend peak	AM peak	PM peak	Weekend peak	AM peak	PM peak	Weekend peak
Conventional Traffic Signal	Single Input	Single Input	sec/veh	28.9	14.1		11.6	12.6		35.7	16.5		12.6	13.3	
Minor Road (ramp) Stop	Single Input	Single Input	sec/veh	56.1	10.0		5.5	8.4		124.0	26.3		7.5	21.4	
1-lane Roundabout	Single Input	Single Input	sec/veh	9.9	8.5		6.3	8.0		12.4	9.9		7.0	9.4	

Outputs

This sheet compiles the data from summary tables in individual alternatives sheets. To populate the output sheet press the "Setup Worksheets" button in the

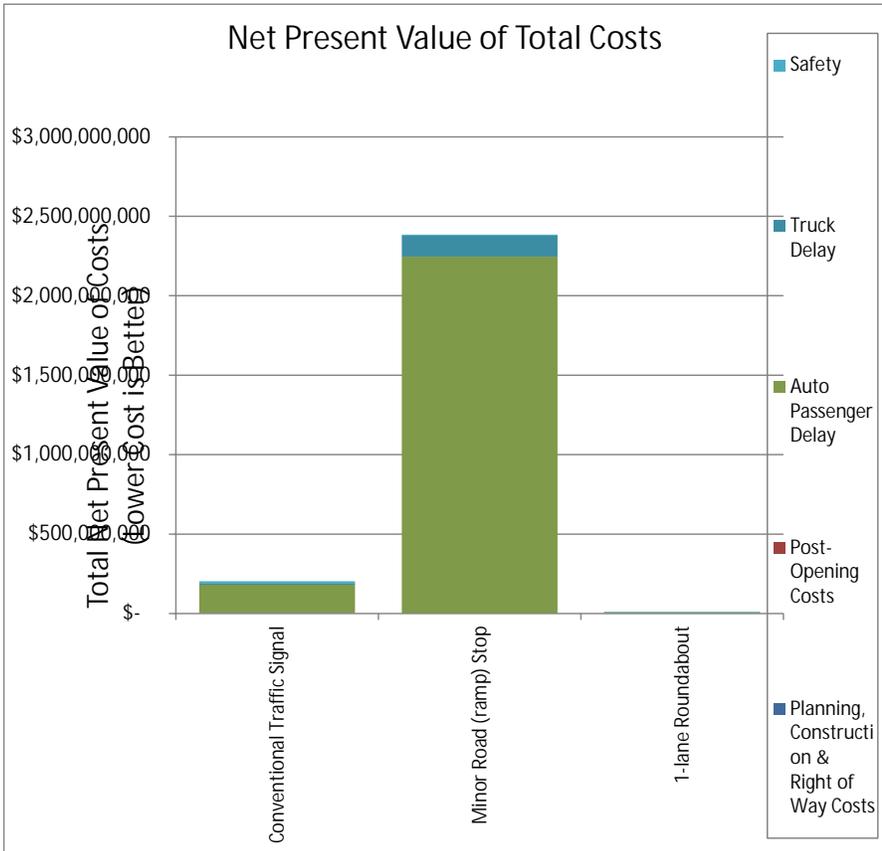
Agency:	AECOM
Project Name:	SR 0001 Section 210 Reconstruction SR 3033 New
Project Reference:	60663709
Intersection:	SR 0001 at SR 3033 Newark Road
City:	New Garden Township
State:	Pennsylvania
Performing Department or Organization:	PennDOT District 6
Date:	6/28/2023
Analyst:	ASR
Analysis Type	Ramp Terminal Interchange

Analysis Summary

Cost Categories	Net Present Value of Costs		
	Conventional Traffic Signal	Minor Road (ramp) Stop	1-lane Roundabout
Planning, Construction & F	\$ 2,415,838	\$ -	\$ 2,414,828
Post-Opening Costs	\$ 232,069	\$ 24,541	\$ 82,902
Auto Passenger Delay	\$ 178,792,292	\$ 2,246,000,824	\$ 6,570,093
Truck Delay	\$ 10,499,426	\$ 131,894,494	\$ 385,823
Safety	\$ 11,065,745	\$ 6,595,640	\$ 2,227,046
Total cost	\$203,005,370	\$2,384,515,499	\$11,680,692

To exclude cost categories from the comparison clear all values in the row.

Select Base Case for Benefit-Cost Comparison:	Minor Road (ramp) Stop			Note: The "Benefit-Cost Ratio" is only applicable for improvements to an existing int
Benefit Categories	Net Present Value of Benefits Relative to Base Case			
	Conventional Traffic Signal	Minor Road (ramp) Stop	1-lane Roundabout	
Auto Passenger Delay	\$ 2,067,208,532		\$ 2,239,430,731	
Truck Delay	\$ 121,395,068		\$ 131,508,670	
Safety	\$ (4,470,105)		\$ 4,368,594	
Net Present Value of Benefit	\$ 2,184,133,495		\$ 2,375,307,995	
Net Present Value of Cost	\$ 2,623,366		\$ 2,473,189	
Benefit-Cost (B/C) Ratio	832.57		960.42	
Delay B/C	834.27		958.66	
Safety B/C	Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.		1.77	



Warnings and Error Log

[Not used]