



FERGUSON

SIGNAL WARRANT STUDY

for

**Pine Grove Road (SR 0026/0045)
& Water Street (SR 0026) / Nixon Road (T-334)**

***Ferguson Township
Centre County, Pennsylvania***

Submitted:

November 30, 2021



SIGNAL WARRANT STUDY
for
Pine Grove Road (SR 0026/0045)
& Water Street (SR 0026) / Nixon Road (T-334)

Ferguson Township
Centre County, Pennsylvania

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Submitted: November 30, 2021



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Project Background

This report presents results of a traffic signal warrant study for the intersection of Pine Grove Road (SR 0026/0045 & Water Street (SR 0026) / Nixon Road (T-334) in the village of Pine Grove Mills, Ferguson Township, Centre County Pennsylvania. The purpose of the study is to determine if a traffic signal is warranted. Recent planning studies—in particular, the Pine Grove Mills Small Area Plan—identified the intersection as problematic for pedestrian crossings, because of the long crossing distances, lack of pedestrian refuges, intersection sight distance, and turning traffic volumes.

Existing Site Conditions

Figure 1 shows an aerial view of the Pine Grove Road & Water Street / Nixon Road intersection. The subject intersection is the central cross-roads intersection in the village of Pine Grove Mills. The area around the intersection is characterized by commercial and residential buildings located close to the street—typical of a small town built in the early 19th Century. The intersection is formed by two state-owned roads (Pine Grove Road, Water Street) and one Township owned road (Nixon Road). Pine Grove Road (SR 0026/0045) and Water Street (SR 0026) are classified arterials in both the federal and Ferguson Township networks. Nixon Road (T-334) is classified as a collector street in the Township network but is not federally classified.

Figure 1: Aerial Image of the Pine Grove Road & Water Street/Nixon Road Intersection

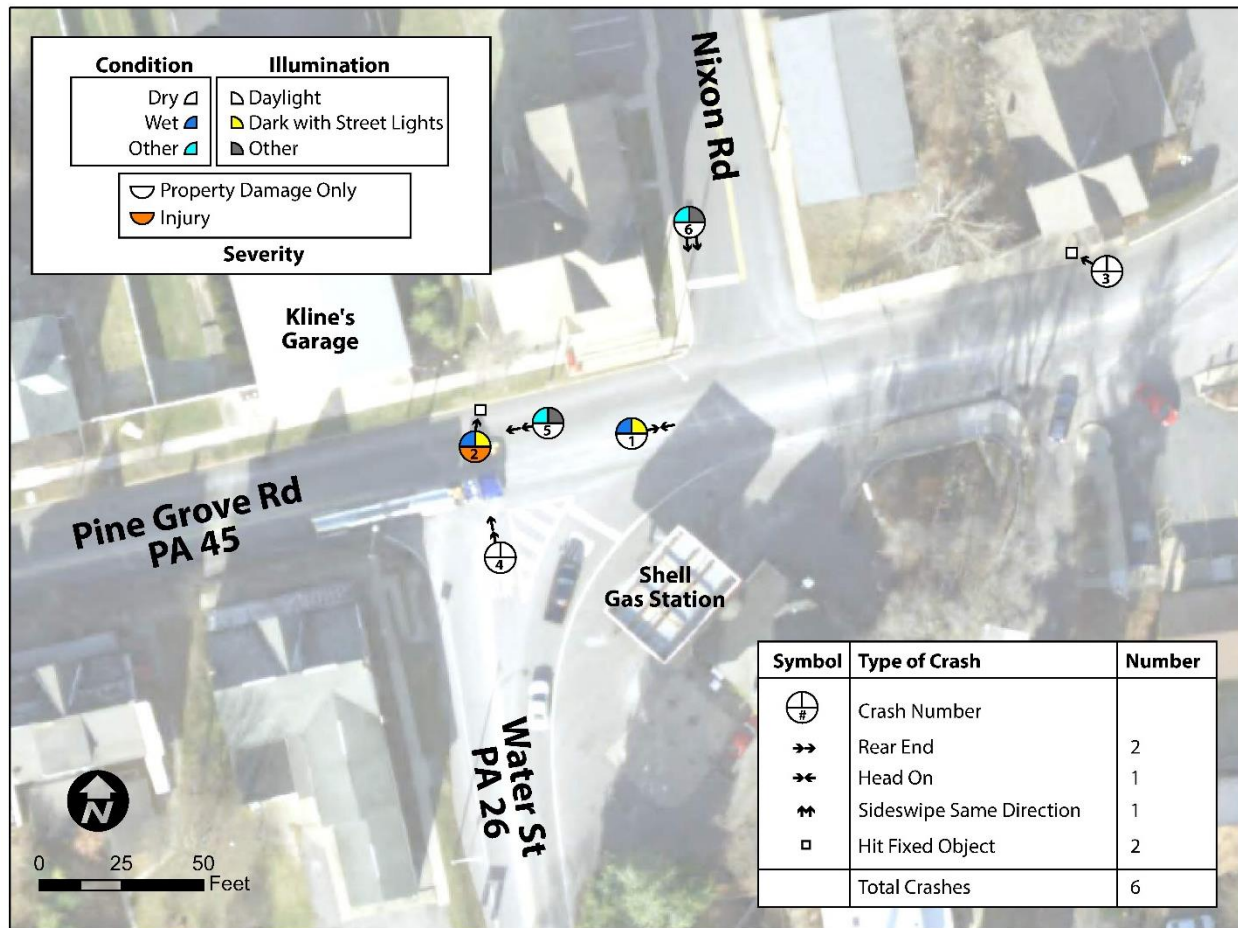


Water Street and Nixon Road operate with stop control, with “free-flow” movement on Pine Grove Road. Water Street is configured with a channelized right turn and striped “pork chop” island. All other approaches have single lanes. Left turns are restricted from Nixon Road because of a sight distance restriction created by the roadway curvature and a building located close to the street. The posted speed limit is 25 miles per hour on all intersecting approaches.

Crash History Evaluation

Crash history at the intersection for the 5-year period of January 1, 2016 to December 31, 2020 were assembled from Ferguson Township Police records into a GIS format. **Figure 2** provides a collision diagram of the six (6) crashes in the vicinity of the intersection. The crash location, collision type, and various environmental factors are given by the points and arrow diagrams, depicting the collision directions of the vehicles involved. There were two (2) rear end, one (1) head-on, one (1) sideswipe same direction, and two (2) hit fixed object collisions.

**Figure 2. Collision Diagram for the Pine Grove Road & Water Street/Nixon Road Intersection
January 1, 2016 to December 31, 2020**



Traffic Data Collection

Traffic counts were completed by Tri-State Data Collection during August 2021, when both Penn State University and State College Area School District were in full session.

Automatic traffic recorders (ATRs) were placed at four (4) locations—one on each approach to the intersection. Complete, continuous 24-hour traffic count data were collected for Tuesday, August 24, 2021, and Wednesday, August 25, 2021. Traffic volume, classification, and speed were collected for all approaches. For Tuesday, August 24, 2021, the average daily traffic (ADT) volume on Pine Grove Road

was 8,494 vehicles per day east of Water Street and 2,306 vehicles per day west of Water Street. The ADT on Water Street was 4,573 vehicles per day, and the ADT on Nixon Road was 1,000 vehicles per day. The raw ATR data is provided in **Appendix A**.

Intersection turning movement volumes were counted during a continuous, 13-hour period (5:30 AM to 6:30 PM) at the intersection on Tuesday, August 24, 2021, encompassing the morning and afternoon commuter traffic peaks. These counts also documented pedestrian crossings, bicycle activity, and the number of heavy vehicles by movement through the intersection. The raw turning movement count data is provided in **Appendix B**.

Figure 3 summarizes the ATR and intersection count volumes by mode (vehicles, bikes, pedestrians), along with heavy truck volumes and speed data along each of the intersecting roadways, in the vicinity of Pine Grove Mills.

Traffic Volume Development and COVID-Adjustments

The raw ATR and turning movement traffic count data were developed into a format necessary for input to the traffic signal warrant analysis. Documentation of the following is provided in **Appendix C**:

1. Create Base Volume Summary – The raw ATR and intersection turning movement volumes were combined and summarized for each intersection approach by 15-minute interval for a continuous 24-hour period. ATR data was used for the 12:00 AM to 5:30 AM and 6:30 PM to 12:00 am periods. Turning movement data was used for the 5:30 AM to 6:30 PM period.
2. Reduce Right Turn Volume with Minimal Conflict – The MUTCD guidance indicates that minor street right turns should not be included in the warranting volume if the vehicles enter the major street with “minimal conflict”. The right-turn movements from Water Street were observed using the video count files supplied by Tri-State Data Collection. Right turns that stopped and then proceeded without additional delay were tallied as having “minimal conflict” with the major street traffic (**Table 1**). The minimal-conflict right-turn vehicles were removed from the minor street volume each 15-minute interval according to the percentage of the right turns that entered with minimal conflict.

**Table 1. Evaluation of Southbound Water Street Right Turns
that enter with “Minimal Conflict”**

Southbound Water Street (SR 0026)	Minimal Conflict Right-Turns	Other Right-Turns
AM Peak Hour (7:15 AM to 8:15 AM)	11 (32%)	23 (68%)
PM Peak Hour (4:30 PM to 5:30 PM)	26 (59%)	18 (41%)

3. Adjust Traffic Volume to account for COVID Impacts – To develop traffic volume adjustments that account for traffic impacts of the COVID pandemic, the 2021 traffic counts were compared to other counts taken prior to the pandemic, as follows:

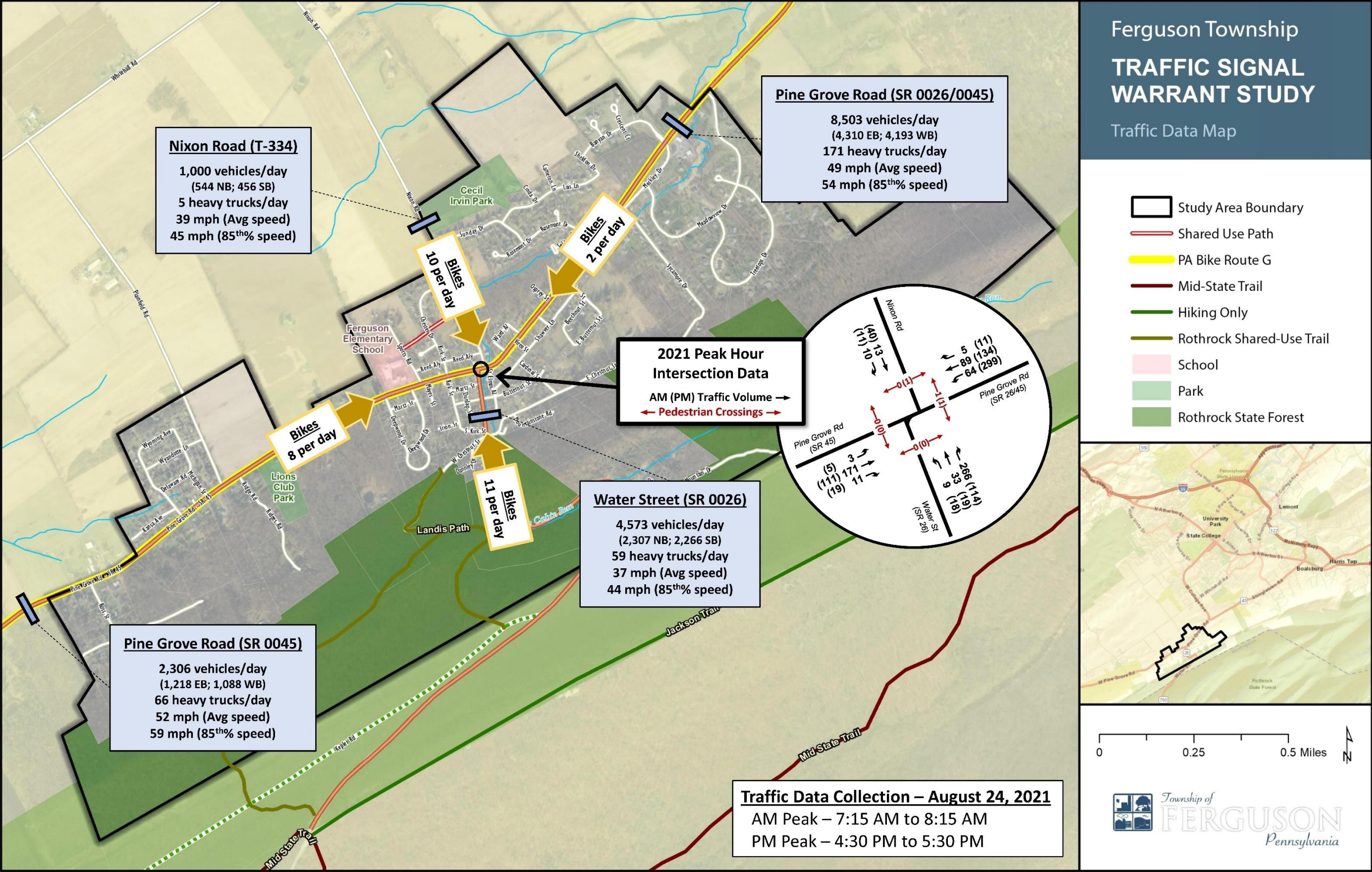
Pine Grove Road, east of Water Street/Nixon Road (August 30, 2018)

TUE, 8/24/2021		THU, 8/30/2018		2021 vs. 2018	
				Difference	% Difference
12:00 AM	24	12:00 AM	37	-13	-54.2%
1:00 AM	28	01:00 AM	22	6	21.4%
2:00 AM	9	02:00 AM	12	-3	-33.3%
3:00 AM	24	03:00 AM	30	-6	-25.0%
4:00 AM	53	04:00 AM	52	1	1.9%
5:00 AM	178	05:00 AM	196	-18	-10.1%
6:00 AM	409	06:00 AM	478	-69	-16.9%
7:00 AM	692	07:00 AM	831	-139	-20.1%
8:00 AM	654	08:00 AM	643	11	1.7%
9:00 AM	481	09:00 AM	536	-55	-11.4%
10:00 AM	450	10:00 AM	485	-35	-7.8%
11:00 AM	430	11:00 AM	474	-44	-10.2%
12:00 PM	489	12:00 PM	500	-11	-2.2%
1:00 PM	497	01:00 PM	535	-38	-7.6%
2:00 PM	575	02:00 PM	564	11	1.9%
3:00 PM	708	03:00 PM	777	-69	-9.7%
4:00 PM	727	04:00 PM	869	-142	-19.5%
5:00 PM	687	05:00 PM	839	-152	-22.1%
6:00 PM	452	06:00 PM	540	-88	-19.5%
7:00 PM	336	07:00 PM	428	-92	-27.4%
8:00 PM	256	08:00 PM	271	-15	-5.9%
9:00 PM	165	09:00 PM	189	-24	-14.5%
10:00 PM	122	10:00 PM	126	-4	-3.3%
11:00 PM	57	11:00 PM	80	-23	-40.4%
Total	8,503	Total	9,514	-1,011	-11.9%

Water Street (SR 0026), north of Pine Grove Road (SR 0026/0045)

TUE, 8/24/2021		TUE, 10/3/2017		2021 vs. 2017	
				Difference	% Difference
12:00 AM	14	12:00 AM	9	5	35.7%
1:00 AM	18	01:00 AM	10	8	44.4%
2:00 AM	9	02:00 AM	9	0	0.0%
3:00 AM	17	03:00 AM	26	-9	-52.9%
4:00 AM	43	04:00 AM	80	-37	-86.0%
5:00 AM	122	05:00 AM	219	-97	-79.5%
6:00 AM	295	06:00 AM	440	-145	-49.2%
7:00 AM	388	07:00 AM	409	-21	-5.4%
8:00 AM	313	08:00 AM	269	44	14.1%
9:00 AM	210	09:00 AM	196	14	6.7%
10:00 AM	241	10:00 AM	215	26	10.8%
11:00 AM	196	11:00 AM	219	-23	-11.7%
12:00 PM	236	12:00 PM	227	9	3.8%
1:00 PM	248	01:00 PM	237	11	4.4%
2:00 PM	317	02:00 PM	363	-46	-14.5%
3:00 PM	371	03:00 PM	480	-109	-29.4%
4:00 PM	433	04:00 PM	500	-67	-15.5%
5:00 PM	399	05:00 PM	321	78	19.5%
6:00 PM	230	06:00 PM	206	24	10.4%
7:00 PM	152	07:00 PM	142	10	6.6%
8:00 PM	137	08:00 PM	91	46	33.6%
9:00 PM	84	09:00 PM	75	9	10.7%
10:00 PM	61	10:00 PM	42	19	31.1%
11:00 PM	39	11:00 PM	18	21	53.8%
Total	4,573	Total	4,803	-230	-5.0%

Figure 3. Traffic Data Collection Summary for the Pine Grove Road & Water Street/Nixon Road Intersection



The 2021 counts were adjusted for each hour of the day according to the Percent (%) Difference. That is, where the 2021 counts were lower than the pre-COVID counts, the 2021 volumes were increased by the Percent Difference; where the 2021 counts were higher than the pre-COVID counts, the 2021 volumes were reduced by the Percent Difference.

Signal Warrant Analysis

The applicable MUTCD traffic signal warrants were evaluated, according to the project scope. **Table 2** describes the warrants, indicates their applicability, and the warrant determination. Detailed documentation of the volume-based signal warrant evaluations (Four Hour, Eight Hour, and Peak Hour) is provided in **Appendix D**, using the PennDOT Signal Warrants spreadsheets.

Evaluation Criteria & Assumptions

The following assumptions and criteria were used in the signal warrant analysis:

- The “70% Factor” criteria were considered appropriate for use in the vehicular based warrants, based on Pine Grove Mills being considered a “Community less than 10,000 Population”.
- The major street (Pine Grove Road) has a single lane of moving traffic, and the minor street (Water Street) was evaluated as one moving lane of traffic. According to MUTCD guidance, Water Street approach is considered “one lane,” since the traffic volumes are NOT equally distributed between left and right turn movements.
- The two days of ATR traffic data were reviewed, and data from the date with the higher traffic volume (Tuesday, August 24, 2021) was used in the signal warrant analysis.

Signal Warrant Evaluation

Table 2 summarizes the results of the signal warrant analysis. Five (5) of the nine (9) MUTCD Traffic Signal Warrants were evaluated. The other four (4) were not applicable (N/A) to the intersection conditions.

None of the vehicular volume warrants were found to be met, even after implementing COVID adjustments. The following observations are based on a sensitivity analysis of the volumes to gauge how much more traffic would need to grow before the warrants could be satisfied:

- When COVID adjustments are added, only 2 unique hours meet the 8 Hour Warrant Criteria, and zero unique hours meet the 4 Hour Warrant Criteria. The Peak Hour Warrant is not met.
- The COVID-adjusted volumes would have to increase uniformly by another 50% before the Peak Hour Warrant would be met for one hour of the day.
- The COVID-adjusted volumes would have to increase by another 75% (uniformly) before the 4-Hour Warrant would be met and 90% (uniformly) before the 8 Hour Warrant would be met.
- The highest traffic volumes of the day occur in the afternoon from about 3 PM to 5 PM. With a uniform 25% increase in the COVID-adjusted volumes, the 4 Hour warrant is met continuously from 3-5 PM. However, this only counts as 2 unique hours toward the signal warrant criteria.
- Based on the MUTCD guidance and observations of traffic operations at the intersection, only 15 to 25 percent of Water Street right turns count toward the signal warrant.

Table 2. Traffic Signal Warrant Results

Warrant	Evaluated? Met?	Explanation of Evaluation
#1 – 8 Hour Vehicular Volume	Evaluated Not Met.	Evaluated using the 70% Factor volumes to meet either Condition A or Condition B, and for the 56% volumes to meet combination of Condition A and Condition B.
#2 – 4 Hour Vehicular Volume	Evaluated Not Met.	Evaluated using the 70% Factor chart (Figure 4C-2, MUTCD) for a one-lane/one-lane approach scenario.
#3 – Peak Hour	Evaluated Not Met.	Evaluated using the 70% Factor chart (Figure 4C-4, MUTCD) for a one-lane/one-lane approach scenario.
#4 – Pedestrian Volume	Evaluated Not Met.	Evaluated using the 70% Factor charts (Figures 4C-6 and 4C-8, MUTCD). No hour of the day had more than five (5) pedestrian crossings. During the AM and PM peak hours, only one (1) crossing was observed. Based on the current Pine Grove Road traffic volume, 150 crossings per hour for four or more separate hours of the day are needed to meet the Four Hour Pedestrian warrant, and 250 crossings per hour are needed to meet the Peak Hour Pedestrian warrant.
#5 – School Crossing	N/A	Location is near but not adjacent to a school. No school zone or school crossing is present. The crossing volume is below the 20 peds per hour minimum necessary to meet the warrant.
#6 – Coordinated Signal System	N/A	No other traffic signals within a mile of the intersection.
#7 – Crash Experience	Evaluated Not Met.	All three criteria are not met. A. Adequate trial of other measures not completed or documented. B. During the last 5 years, no 12-month period contained 5 or more correctable crashes. C. Volume criteria are not met.
#8 – Roadway Network	N/A	Not applicable, based on conditions.
#9 – Intersection Near a Grade Crossing	N/A	Not applicable, based on conditions.

Conclusion

A traffic signal is not warranted at the intersection of Pine Grove Road (SR 0026/0045) & Water Street (SR 0026) / Nixon Road (T-334), based on traffic, crash, and pedestrian crossing conditions that were observed in August 2021.

Appendix A

Automatic Traffic Recorder Data – Raw Data

A.1 Automatic Traffic Recorder Data – Raw Data

Pine Grove Road (SR 0026/0045), east of Water Street/Nixon Road

Tri-State Traffic Data, Inc.

Page 1

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	4	150	43	2	17	1	0	1	0	0	0	0	0	218
15:00	3	140	44	1	25	0	0	2	1	0	0	0	0	216
16:00	4	187	54	1	23	1	0	1	1	0	0	0	0	272
17:00	5	138	36	0	24	0	0	2	0	0	0	0	0	205
18:00	4	123	32	1	15	0	0	1	0	0	0	0	0	176
19:00	4	91	19	0	11	0	0	0	1	0	0	0	0	126
20:00	0	61	15	0	5	0	0	0	0	0	0	0	0	81
21:00	0	39	7	0	3	0	0	0	0	0	0	0	0	49
22:00	0	19	7	0	4	0	0	0	0	0	0	0	0	30
23:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
Day Total	24	954	258	5	128	2	0	7	3	0	0	0	0	1381
Percent	1.7%	69.1%	18.7%	0.4%	9.3%	0.1%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.	17:00 5	16:00 187	16:00 54	14:00 2	15:00 25	14:00 1		15:00 2	15:00 1					16:00 272

Tri-State Traffic Data, Inc.

Page 2

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

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
08/24/21	0	11	3	0	0	0	0	0	0	0	0	0	0	14
01:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
02:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
03:00	0	8	4	0	1	0	0	0	1	0	0	0	0	14
04:00	0	31	11	0	4	0	0	0	0	0	0	0	0	46
05:00	3	100	33	0	21	1	0	0	0	0	0	0	0	158
06:00	6	208	71	1	44	4	0	2	0	0	0	0	0	336
07:00	2	369	87	3	53	0	0	11	2	0	0	0	0	527
08:00	0	292	89	7	36	1	1	6	1	0	0	0	0	433
09:00	3	188	51	2	42	1	0	3	3	0	0	0	0	293
10:00	0	193	55	1	24	1	0	1	3	2	0	0	0	280
11:00	7	137	57	0	22	3	0	4	1	0	0	0	0	231
12 PM	6	145	55	1	34	3	1	3	1	0	0	0	0	249
13:00	2	169	44	3	23	3	0	3	0	1	0	0	0	248
14:00	4	148	49	6	19	0	0	5	4	0	0	0	0	235
15:00	3	167	63	5	19	6	0	3	1	0	0	0	0	267
16:00	5	149	47	3	36	1	0	2	0	0	0	0	0	243
17:00	2	172	45	2	22	0	0	1	0	0	0	0	0	244
18:00	1	120	31	2	17	0	0	2	0	0	0	0	0	173
19:00	4	91	13	0	15	0	0	0	2	0	0	0	0	125
20:00	3	58	12	0	6	0	0	1	0	0	0	0	0	80
21:00	1	39	7	0	4	0	0	0	0	0	0	0	0	51
22:00	0	24	6	0	3	0	0	0	0	0	0	0	0	33
23:00	0	15	2	0	0	0	0	0	0	0	0	0	0	17
Day Total	52	2843	838	36	446	24	2	47	19	3	0	0	0	4310
Percent	1.2%	66.0%	19.4%	0.8%	10.3%	0.6%	0.0%	1.1%	0.4%	0.1%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	08:00	08:00	07:00	06:00	08:00	07:00	09:00	10:00				07:00
Vol.	7	369	89	7	53	4	1	11	3	2				527
PM Peak	12:00	17:00	15:00	14:00	16:00	15:00	12:00	14:00	14:00	13:00				15:00
Vol.	6	172	63	6	36	6	1	5	4	1				267

Tri-State Traffic Data, Inc.

Page 3

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

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
08/25/21	0	10	1	0	0	0	0	0	0	0	0	0	0	11
01:00	0	6	1	0	0	0	0	0	1	0	0	0	0	8
02:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
03:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	24	7	1	8	1	0	0	1	0	0	0	0	42
05:00	1	97	35	1	16	1	0	0	0	0	0	0	0	151
06:00	5	185	65	0	49	4	0	2	0	0	0	0	0	310
07:00	2	339	91	1	39	1	0	8	1	0	0	0	0	482
08:00	1	287	77	8	41	0	0	7	0	0	0	0	0	421
09:00	5	189	54	3	34	0	0	5	0	0	0	0	0	290
10:00	8	177	48	6	24	1	0	7	0	0	0	0	0	271
11:00	3	139	44	0	21	2	0	2	3	0	0	0	0	214
12 PM	1	130	42	2	22	1	1	3	2	0	0	0	0	204
13:00	3	154	45	1	19	2	0	4	0	1	0	0	0	229
14:00	1	134	47	4	16	1	0	2	0	0	0	0	0	205
15:00	5	158	67	6	31	2	1	2	0	0	0	0	0	272
16:00	6	161	45	2	25	2	0	2	1	0	0	0	0	244
17:00	5	151	50	1	30	0	0	3	0	0	0	0	0	240
18:00	2	101	37	0	14	0	0	1	0	0	0	0	0	155
19:00	7	81	20	0	13	1	0	1	0	0	0	0	0	123
20:00	4	79	22	0	8	1	0	0	0	0	0	0	0	114
21:00	0	52	6	0	2	0	0	1	0	0	0	0	0	61
22:00	0	26	4	0	0	0	0	0	0	0	0	0	0	30
23:00	0	7	3	0	1	0	0	0	0	0	0	0	0	11
Day Total	59	2696	812	36	413	20	2	50	9	1	0	0	0	4098
Percent	1.4%	65.8%	19.8%	0.9%	10.1%	0.5%	0.0%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	08:00	06:00	06:00		07:00	11:00					07:00
Vol.	8	339	91	8	49	4		8	3					482
PM Peak	19:00	16:00	15:00	15:00	15:00	13:00	12:00	13:00	12:00	13:00				15:00
Vol.	7	161	67	6	31	2	1	4	2	1				272

Tri-State Traffic Data, Inc.

Page 4

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

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
08/26/21	0	7	0	0	0	0	0	0	1	0	0	0	0	8
01:00	0	1	2	0	1	0	0	0	1	0	0	0	0	5
02:00	0	2	1	0	0	0	0	0	1	0	0	0	0	4
03:00	0	7	2	0	0	0	0	0	1	0	0	0	0	10
04:00	0	31	12	0	11	0	0	0	0	0	0	0	0	54
05:00	1	95	33	0	25	0	0	0	1	0	0	0	0	155
06:00	1	209	64	0	41	0	0	4	0	0	0	0	0	319
07:00	2	331	99	3	51	2	0	6	2	0	0	0	0	496
08:00	1	294	82	5	43	0	0	4	1	0	0	0	0	430
09:00	3	193	55	1	26	6	0	3	1	0	0	0	0	288
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	8	1170	350	9	198	8	0	17	9	0	0	0	0	1769
Percent	0.5%	66.1%	19.8%	0.5%	11.2%	0.5%	0.0%	1.0%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	07:00	08:00	07:00	09:00		07:00	07:00					07:00
Vol.	3	331	99	5	51	6		6	2					496
PM Peak														
Vol.														
Grand Total	143	7663	2258	86	1185	54	4	121	40	4	0	0	0	11558
Percent	1.2%	66.3%	19.5%	0.7%	10.3%	0.5%	0.0%	1.0%	0.3%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

Page 5

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	6	202	80	1	15	0	0	4	0	0	0	0	0	308
15:00	2	276	79	0	21	1	0	7	1	0	0	0	0	387
16:00	10	314	87	0	22	0	0	4	0	0	0	0	0	437
17:00	5	337	84	0	20	0	0	4	0	0	0	0	0	450
18:00	2	181	48	0	7	1	0	0	0	0	0	0	0	239
19:00	4	149	37	2	11	0	0	1	1	0	0	0	0	205
20:00	1	123	25	0	5	0	0	0	0	0	0	0	0	154
21:00	1	112	21	0	6	0	0	0	0	0	0	0	0	140
22:00	3	93	31	0	7	0	0	0	1	0	0	0	0	135
23:00	1	39	5	0	3	0	0	0	0	0	0	0	0	48
Day Total	35	1826	497	3	117	2	0	20	3	0	0	0	0	2503
Percent	1.4%	73.0%	19.9%	0.1%	4.7%	0.1%	0.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.	16:00 10	17:00 337	16:00 87	19:00 2	16:00 22	15:00 1		15:00 7	15:00 1					17:00 450

Tri-State Traffic Data, Inc.

Page 6

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

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
08/24/21	0	7	1	0	1	0	0	1	0	0	0	0	0	10
01:00	0	15	4	0	3	0	0	0	0	0	0	0	0	22
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	7	2	0	0	0	0	1	0	0	0	0	0	10
04:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
05:00	0	13	4	1	1	0	0	0	1	0	0	0	0	20
06:00	0	48	15	0	7	0	0	2	1	0	0	0	0	73
07:00	1	109	31	3	17	0	1	1	2	0	0	0	0	165
08:00	5	141	51	1	17	0	1	2	3	0	0	0	0	221
09:00	6	112	46	0	14	5	1	3	1	0	0	0	0	188
10:00	1	104	54	0	6	1	1	1	2	0	0	0	0	170
11:00	4	131	45	1	13	2	1	1	1	0	0	0	0	199
12 PM	3	169	45	2	14	1	2	4	0	0	0	0	0	240
13:00	1	167	62	2	13	0	1	2	1	0	0	0	0	249
14:00	3	217	91	6	18	1	1	2	1	0	0	0	0	340
15:00	11	292	97	1	30	2	0	8	0	0	0	0	0	441
16:00	5	348	102	6	19	0	0	4	0	0	0	0	0	484
17:00	4	346	80	0	12	0	0	1	0	0	0	0	0	443
18:00	4	223	37	1	9	2	0	2	1	0	0	0	0	279
19:00	4	161	40	0	4	1	0	1	0	0	0	0	0	211
20:00	2	145	26	0	2	0	0	1	0	0	0	0	0	176
21:00	0	87	20	0	6	0	0	1	0	0	0	0	0	114
22:00	2	62	17	0	8	0	0	0	0	0	0	0	0	89
23:00	0	33	5	0	2	0	0	0	0	0	0	0	0	40
Day Total	56	2945	876	24	216	15	9	38	14	0	0	0	0	4193
Percent	1.3%	70.2%	20.9%	0.6%	5.2%	0.4%	0.2%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	10:00	07:00	07:00	09:00	07:00	09:00	08:00					08:00
Vol.	6	141	54	3	17	5	1	3	3					221
PM Peak	15:00	16:00	16:00	14:00	15:00	15:00	12:00	15:00	13:00					16:00
Vol.	11	348	102	6	30	2	2	8	1					484

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Page 7

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

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
08/25/21	0	10	1	0	0	0	0	0	1	0	0	0	0	12
01:00	0	14	5	0	1	0	0	0	1	0	0	0	0	21
02:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
03:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
04:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
05:00	0	16	6	0	0	0	0	0	2	0	0	0	0	24
06:00	1	49	7	3	5	1	0	1	0	0	0	0	0	67
07:00	4	84	24	4	15	0	0	3	0	1	0	0	0	135
08:00	0	119	36	2	8	0	0	5	0	0	0	0	0	170
09:00	1	105	33	1	14	0	1	2	0	0	0	0	0	157
10:00	1	130	43	1	14	0	0	2	1	0	0	0	0	192
11:00	2	131	46	1	13	2	0	1	0	0	0	0	0	196
12 PM	5	154	48	2	15	0	1	2	2	0	0	0	0	229
13:00	7	138	66	1	12	1	0	3	1	0	0	0	0	229
14:00	5	209	73	5	27	2	1	7	1	0	0	0	0	330
15:00	3	281	93	3	16	0	0	3	1	0	0	0	0	400
16:00	5	358	105	4	16	0	0	2	0	0	0	0	0	490
17:00	5	336	79	0	22	1	0	3	0	0	0	0	0	446
18:00	3	220	57	1	8	0	0	0	0	0	0	0	0	289
19:00	5	160	38	0	4	1	0	0	0	0	0	0	0	208
20:00	3	116	34	0	4	0	0	0	1	0	0	0	0	158
21:00	1	89	21	0	6	1	0	1	1	0	0	0	0	120
22:00	1	60	19	0	4	0	0	0	0	0	0	0	0	84
23:00	0	37	4	0	0	0	0	0	0	0	0	0	0	41
Day Total	52	2829	840	28	204	9	3	35	12	1	0	0	0	4013
Percent	1.3%	70.5%	20.9%	0.7%	5.1%	0.2%	0.1%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	11:00	07:00	07:00	11:00	09:00	08:00	05:00	07:00				11:00
Vol.	4	131	46	4	15	2	1	5	2	1				196
PM Peak	13:00	16:00	16:00	14:00	14:00	14:00	12:00	14:00	12:00					16:00
Vol.	7	358	105	5	27	2	1	7	2					490

Tri-State Traffic Data, Inc.

Page 8

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

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
08/26/21	0	9	2	0	1	0	0	0	1	0	0	0	0	13
01:00	0	9	5	0	0	0	0	0	1	0	0	0	0	15
02:00	0	10	1	0	0	0	0	0	2	0	0	0	0	13
03:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6
05:00	0	11	6	0	0	1	0	1	1	0	0	0	0	20
06:00	1	44	16	1	3	3	0	1	0	0	0	0	0	69
07:00	0	115	42	3	16	0	0	5	0	0	0	0	0	181
08:00	1	103	36	2	8	4	1	2	1	0	0	0	0	158
09:00	0	85	40	0	11	1	1	2	4	0	0	0	0	144
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	2	395	149	6	40	9	2	11	10	0	0	0	0	624
Percent	0.3%	63.3%	23.9%	1.0%	6.4%	1.4%	0.3%	1.8%	1.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	07:00	08:00	08:00	07:00	09:00					07:00
Vol.	1	115	42	3	16	4	1	5	4					181
PM Peak														
Vol.														
Grand Total	145	7995	2362	61	577	35	14	104	39	1	0	0	0	11333
Percent	1.3%	70.5%	20.8%	0.5%	5.1%	0.3%	0.1%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

Page 1

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	5	0	0	0	0	7	24	103	51	20	6	1	0	1	218
15:00	2	0	0	0	0	2	28	78	80	21	3	2	0	0	216
16:00	12	0	0	0	0	4	31	97	81	41	8	0	0	0	274
17:00	12	1	0	0	0	1	32	70	69	22	2	0	0	0	209
18:00	6	0	1	0	0	0	9	61	60	30	9	0	0	1	177
19:00	2	1	0	0	0	0	22	50	39	10	2	0	0	0	126
20:00	3	0	0	0	0	1	17	30	20	6	3	1	0	0	81
21:00	0	0	0	0	0	3	4	20	12	5	3	1	1	0	49
22:00	0	0	0	0	0	0	3	16	10	0	1	0	0	0	30
23:00	0	0	0	0	0	0	1	4	2	1	0	0	0	0	8
Total	42	2	1	0	0	18	171	529	424	156	37	5	1	2	1388

Tri-State Traffic Data, Inc.

Page 2

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 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
08/24/21	0	0	0	0	0	1	2	3	3	3	1	1	0	0	14
01:00	0	0	0	0	0	0	0	3	3	0	0	0	0	0	6
02:00	0	0	0	0	0	0	1	2	1	1	2	0	0	0	7
03:00	0	0	0	0	0	1	1	5	3	1	3	0	0	0	14
04:00	0	0	1	0	0	2	5	17	11	6	3	1	0	0	46
05:00	0	0	0	0	1	0	18	58	60	21	0	0	0	0	158
06:00	1	0	1	0	0	4	40	131	128	25	6	0	0	0	336
07:00	5	0	0	0	0	3	59	224	185	46	6	0	0	0	528
08:00	8	0	0	0	0	7	64	160	155	35	4	1	0	1	435
09:00	4	0	0	0	2	10	38	103	96	37	1	2	1	0	294
10:00	3	0	0	0	0	10	30	118	94	19	7	0	0	0	281
11:00	4	1	0	0	1	6	28	90	73	22	5	1	0	0	231
12 PM	3	0	1	0	0	8	46	81	79	24	7	0	0	0	249
13:00	5	0	0	0	0	8	36	99	75	24	2	0	0	0	249
14:00	10	1	0	0	0	7	40	112	51	12	5	0	0	0	238
15:00	11	0	2	0	0	3	45	94	75	32	5	1	0	0	268
16:00	5	1	0	1	0	4	18	93	91	28	4	0	0	0	245
17:00	13	0	0	0	0	0	21	100	84	25	2	1	0	0	246
18:00	6	0	0	0	0	1	19	59	56	24	9	1	0	0	175
19:00	1	0	0	0	0	2	19	57	32	11	3	0	0	0	125
20:00	2	0	0	0	1	5	14	28	18	8	2	1	1	0	80
21:00	1	0	0	0	0	1	1	27	13	6	2	0	0	0	51
22:00	0	0	0	0	0	1	7	7	10	6	1	0	1	0	33
23:00	0	0	0	0	0	0	2	4	7	2	1	1	0	0	17
Total	82	3	5	1	5	84	554	1675	1403	418	81	11	3	1	4326

Tri-State Traffic Data, Inc.

Page 3

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 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
08/25/21	0	0	0	0	0	0	4	2	3	1	1	0	0	0	11
01:00	0	0	0	0	0	2	1	2	0	3	0	0	0	0	8
02:00	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5
03:00	0	0	0	0	0	0	1	0	2	1	1	0	0	0	5
04:00	0	0	0	0	0	1	6	11	11	12	1	0	0	0	42
05:00	0	0	0	0	0	0	11	63	56	11	8	2	0	0	151
06:00	1	0	1	0	0	7	26	123	112	30	9	1	0	0	310
07:00	11	0	0	0	0	9	85	201	144	31	3	0	0	0	484
08:00	2	0	0	0	1	3	64	201	123	21	6	0	0	0	421
09:00	3	1	1	0	3	11	40	107	102	21	1	1	0	0	291
10:00	2	1	0	0	0	5	24	107	104	22	6	0	0	0	271
11:00	2	2	0	0	0	6	27	68	80	27	1	1	0	0	214
12 PM	8	0	0	0	0	5	30	70	61	24	7	1	0	0	206
13:00	4	0	0	0	0	3	34	99	67	18	2	0	1	2	230
14:00	0	0	0	0	0	4	35	82	62	16	5	1	0	0	205
15:00	5	1	1	0	2	0	32	118	79	29	5	0	0	0	272
16:00	14	1	0	0	2	8	29	89	73	21	5	2	0	0	244
17:00	8	0	1	0	0	1	19	77	97	33	6	0	0	0	242
18:00	2	0	1	0	1	1	13	54	60	19	4	1	0	0	156
19:00	1	1	0	0	1	3	11	44	36	23	3	0	0	0	123
20:00	4	0	0	0	2	4	18	43	30	14	1	0	0	0	116
21:00	1	0	0	0	0	1	5	19	22	11	1	0	1	0	61
22:00	0	0	0	0	0	0	5	12	6	5	2	0	0	0	30
23:00	0	0	0	0	0	0	2	4	2	2	1	0	0	0	11
Total	68	7	5	0	12	74	522	1600	1333	395	79	10	2	2	4109

Tri-State Traffic Data, Inc.

Page 4

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 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
08/26/21	0	0	0	0	0	0	0	4	3	1	0	0	0	0	8
01:00	0	0	0	0	0	0	0	3	2	0	0	0	0	0	5
02:00	0	0	0	0	0	0	1	1	1	1	0	0	0	0	4
03:00	0	0	0	0	0	0	2	2	3	1	2	0	0	0	10
04:00	0	0	0	0	0	1	5	11	31	2	3	1	0	0	54
05:00	0	0	0	0	0	2	11	54	61	21	6	0	0	0	155
06:00	4	0	1	0	0	4	40	138	97	29	6	1	0	0	320
07:00	13	0	0	0	0	5	50	221	170	37	2	0	0	0	498
08:00	5	0	0	0	1	10	52	170	142	39	10	1	0	0	430
09:00	6	0	0	0	0	7	34	112	94	31	5	2	0	0	291
10:00	2	0	0	0	0	5	18	85	84	24	8	1	1	0	228
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	30	0	1	0	1	34	213	801	688	186	42	6	1	0	2003
Grand Total	222	12	12	1	18	210	1460	4605	3848	1155	239	32	7	5	11826

15th Percentile : 44 MPH
50th Percentile : 49 MPH
85th Percentile : 54 MPH
95th Percentile : 58 MPH

Stats
Mean Speed(Average) : 49 MPH
10 MPH Pace Speed : 46-55 MPH
Number in Pace : 8453
Percent in Pace : 71.5%
Number of Vehicles > 55 MPH : 1438
Percent of Vehicles > 55 MPH : 12.2%

Tri-State Traffic Data, Inc.

Page 5

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	2	0	0	0	4	8	83	154	48	9	0	0	0	0	308
15:00	3	1	0	0	6	10	91	148	108	19	2	0	0	0	388
16:00	10	0	0	0	1	15	133	195	72	11	1	0	0	0	438
17:00	6	0	0	0	0	13	102	228	86	11	5	0	0	0	451
18:00	9	0	0	0	0	10	71	87	43	15	4	0	0	0	239
19:00	3	0	0	0	0	12	64	84	35	7	1	0	0	0	206
20:00	3	0	0	0	1	7	55	62	24	3	0	0	0	0	155
21:00	2	0	0	0	3	11	35	62	20	8	0	0	0	0	141
22:00	1	0	0	0	1	7	33	59	26	6	2	0	0	0	135
23:00	0	0	0	0	0	6	8	20	11	3	0	0	0	0	48
Total	39	1	0	0	16	99	675	1099	473	92	15	0	0	0	2509

Tri-State Traffic Data, Inc.

Page 6

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 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
08/24/21	0	0	0	0	0	3	2	3	2	0	0	0	0	0	10
01:00	0	0	0	0	1	2	2	7	6	4	0	0	0	0	22
02:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
03:00	0	0	0	0	0	1	4	4	1	0	0	0	0	0	10
04:00	0	0	0	0	1	1	2	3	0	0	0	0	0	0	7
05:00	0	0	0	0	2	0	10	7	0	1	0	0	0	0	20
06:00	3	0	0	0	0	1	18	34	13	4	1	0	0	0	74
07:00	7	0	0	0	2	12	49	67	22	6	0	0	0	0	165
08:00	5	1	0	0	1	16	87	79	28	6	0	0	0	0	223
09:00	3	0	1	4	1	10	67	75	21	6	0	0	0	0	188
10:00	4	1	1	4	2	8	51	74	18	4	3	0	0	0	170
11:00	6	0	0	3	1	5	53	85	41	6	1	0	0	0	201
12 PM	5	0	0	4	5	8	52	112	47	9	0	0	0	0	242
13:00	6	0	0	1	0	11	68	105	45	13	0	0	0	0	249
14:00	13	0	0	0	3	21	90	143	61	13	0	0	0	0	344
15:00	20	0	0	2	4	37	141	154	77	7	1	0	0	0	443
16:00	11	0	0	0	0	17	160	215	69	13	1	0	0	0	486
17:00	11	0	0	0	0	17	96	195	109	14	2	0	0	0	444
18:00	4	0	0	0	1	29	95	94	48	9	0	0	0	0	280
19:00	1	0	0	3	7	17	70	73	35	4	1	0	0	0	211
20:00	0	0	0	0	2	8	64	68	29	3	2	0	0	0	176
21:00	2	0	0	0	2	10	31	45	17	5	2	0	0	0	114
22:00	0	0	0	0	2	3	31	31	19	2	0	0	0	1	89
23:00	0	0	0	0	0	5	12	12	9	2	0	0	0	0	40
Total	101	2	2	21	37	242	1256	1685	718	131	14	0	0	1	4210

Tri-State Traffic Data, Inc.

Page 7

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 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
08/25/21	0	0	0	1	0	1	2	5	2	0	1	0	0	0	12
01:00	0	0	0	0	0	6	3	7	2	1	2	0	0	0	21
02:00	0	0	0	0	0	1	2	0	0	1	0	1	0	0	5
03:00	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3
04:00	0	0	0	0	0	0	3	0	1	2	1	0	0	0	7
05:00	2	0	0	0	1	5	8	1	6	1	0	0	0	0	24
06:00	4	0	0	0	1	4	15	28	11	4	0	0	0	0	67
07:00	11	1	0	1	2	20	39	49	12	2	0	0	0	0	137
08:00	5	0	0	0	1	10	85	50	15	4	0	0	0	0	170
09:00	3	0	0	0	3	10	48	67	21	5	0	1	0	0	158
10:00	4	0	0	0	0	14	51	77	42	3	3	0	0	0	194
11:00	7	0	0	0	1	12	33	91	45	4	3	0	0	0	196
12 PM	8	0	0	0	0	10	60	102	44	7	0	0	0	0	231
13:00	6	0	0	0	1	10	60	100	47	4	1	0	1	0	230
14:00	3	0	0	2	6	25	100	124	59	11	0	1	0	0	331
15:00	11	0	0	0	1	30	110	172	66	8	2	0	0	0	400
16:00	13	0	0	0	2	14	118	234	101	9	0	0	0	0	491
17:00	14	0	0	0	1	15	96	200	104	13	4	0	0	0	447
18:00	2	0	0	0	0	21	77	127	58	3	1	0	0	0	289
19:00	3	0	0	0	5	13	54	97	29	5	1	0	1	0	208
20:00	2	0	0	0	1	12	59	61	20	4	0	0	0	0	159
21:00	0	0	0	0	1	14	44	40	20	1	0	0	0	0	120
22:00	0	0	0	0	1	7	27	28	15	5	1	0	0	0	84
23:00	1	0	0	0	0	4	8	17	8	2	1	0	0	0	41
Total	99	1	0	4	28	258	1103	1678	729	99	21	3	2	0	4025

Tri-State Traffic Data, Inc.

Page 8

Street: Pine Grove Rd
Location: East of Meadowview
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 2
Station ID: 2

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB																
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	
08/26/21	0	0	0	0	1	2	5	3	1	1	0	0	0	0	13	
01:00	0	0	0	1	0	0	4	5	4	1	0	0	0	0	15	
02:00	0	0	0	0	0	1	3	5	1	2	1	0	0	0	13	
03:00	0	0	0	0	0	1	1	0	2	1	0	0	0	0	5	
04:00	0	0	0	0	0	1	0	3	2	0	0	0	0	0	6	
05:00	0	0	0	1	0	1	6	7	4	0	1	0	0	0	20	
06:00	3	0	0	0	6	1	22	28	7	2	0	0	0	0	69	
07:00	14	0	0	0	0	15	63	67	17	7	0	0	0	0	183	
08:00	7	0	4	0	4	15	55	52	20	2	0	0	0	0	159	
09:00	5	0	0	1	6	18	34	50	28	2	0	0	0	0	144	
10:00	4	0	0	0	0	7	51	77	31	4	0	0	0	0	174	
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	33	0	4	3	17	62	244	297	117	22	2	0	0	0	801	
Grand Total	272	4	6	28	98	661	3278	4759	2037	344	52	3	2	1	11545	

15th Percentile : 41 MPH
50th Percentile : 46 MPH
85th Percentile : 51 MPH
95th Percentile : 54 MPH

Stats
Mean Speed(Average) : 46 MPH
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 8037
Percent in Pace : 69.6%
Number of Vehicles > 55 MPH : 402
Percent of Vehicles > 55 MPH : 3.5%

A.2 Automatic Traffic Recorder Data – Raw Data

Pine Grove Road (SR 0045), west of Water Street/Nixon Road

Tri-State Traffic Data, Inc.

Page 1

Street: West Pine Grove
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	1	38	17	1	6	1	0	1	0	0	0	0	0	65
14:00	4	29	17	1	3	1	0	0	0	0	0	0	0	55
15:00	1	45	17	0	10	0	0	2	0	0	0	0	0	75
16:00	7	52	22	0	6	0	0	2	1	0	0	0	0	90
17:00	4	48	10	0	9	0	0	1	0	0	0	0	0	72
18:00	2	36	9	0	8	0	0	0	0	0	0	0	0	55
19:00	2	21	6	0	2	0	0	0	0	0	0	0	0	31
20:00	0	14	9	0	1	0	0	0	0	0	0	0	0	24
21:00	0	8	1	0	2	0	0	0	0	0	0	0	0	11
22:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Day Total	21	298	109	2	48	2	0	6	1	0	0	0	0	487
Percent	4.3%	61.2%	22.4%	0.4%	9.9%	0.4%	0.0%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.	16:00 7	16:00 52	16:00 22	13:00 1	15:00 10	13:00 1		15:00 2	16:00 1					16:00 90

Tri-State Traffic Data, Inc.

Page 2

Street: West Pine Grove
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

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
08/24/21	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	3	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	0	1	0	0	0	0	0	1	0	0	0	0	2
04:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
05:00	1	27	6	0	5	0	0	0	0	0	0	0	0	39
06:00	0	58	19	0	6	3	0	0	0	0	0	0	0	86
07:00	2	104	28	0	12	0	0	2	1	0	0	0	0	149
08:00	0	58	17	3	11	1	1	3	0	0	0	0	0	94
09:00	4	38	17	1	6	0	0	1	2	0	0	0	0	69
10:00	1	41	14	1	8	0	0	0	1	0	0	0	0	66
11:00	9	38	19	0	9	2	0	1	1	0	0	0	0	79
12 PM	8	50	18	0	10	1	0	0	1	0	0	0	0	88
13:00	3	45	16	0	6	1	0	0	0	0	0	0	0	71
14:00	2	40	12	1	9	0	0	1	2	0	0	0	0	67
15:00	0	50	22	2	4	1	0	0	1	0	0	0	0	80
16:00	1	40	27	1	15	0	0	0	0	0	0	0	0	84
17:00	4	51	15	1	7	0	0	1	0	0	0	0	0	79
18:00	4	32	16	0	6	0	0	1	0	0	0	0	0	59
19:00	0	25	7	0	5	0	0	0	2	0	0	0	0	39
20:00	0	19	3	0	2	0	0	1	0	0	0	0	0	25
21:00	0	10	4	0	1	0	0	0	0	0	0	0	0	15
22:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Day Total	39	747	266	10	123	9	1	11	12	0	0	0	0	1218
Percent	3.2%	61.3%	21.8%	0.8%	10.1%	0.7%	0.1%	0.9%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	08:00	07:00	06:00	08:00	08:00	09:00					07:00
Vol.	9	104	28	3	12	3	1	3	2					149
PM Peak	12:00	17:00	16:00	15:00	16:00	12:00		14:00	14:00					12:00
Vol.	8	51	27	2	15	1		1	2					88

Tri-State Traffic Data, Inc.

Page 3

Street: West Pine Grove
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

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
08/25/21	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	2	0	0	0	0	0	0	1	0	0	0	0	3
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	5	1	0	1	0	0	0	2	0	0	0	0	9
05:00	0	28	7	1	2	0	0	0	0	0	0	0	0	38
06:00	2	42	22	0	8	1	0	0	0	0	0	0	0	75
07:00	3	94	33	1	12	1	0	0	0	0	0	0	0	144
08:00	3	48	17	4	5	0	0	3	0	0	0	0	0	80
09:00	3	47	16	0	8	1	0	3	0	0	0	0	0	78
10:00	3	44	21	2	4	0	0	3	0	0	0	0	0	77
11:00	1	30	12	0	8	0	0	0	1	0	0	0	0	52
12 PM	3	33	11	1	9	1	1	2	1	0	0	0	0	62
13:00	0	39	10	0	9	0	0	0	0	0	0	0	0	58
14:00	3	35	22	0	3	0	0	1	0	0	0	0	0	64
15:00	3	35	20	2	9	0	1	1	0	0	0	0	0	71
16:00	1	47	13	0	13	0	0	1	2	0	0	0	0	77
17:00	2	49	25	0	11	0	0	1	0	0	0	0	0	88
18:00	2	28	17	0	3	0	0	0	0	0	0	0	0	50
19:00	5	17	1	0	8	0	0	0	0	0	0	0	0	31
20:00	3	34	12	0	1	1	0	0	0	0	0	0	0	51
21:00	0	21	4	0	1	0	0	0	0	0	0	0	0	26
22:00	0	5	2	0	1	0	0	0	0	0	0	0	0	8
23:00	0	3	1	0	0	0	0	0	1	0	0	0	0	5
Day Total	37	691	268	11	116	5	2	15	8	0	0	0	0	1153
Percent	3.2%	59.9%	23.2%	1.0%	10.1%	0.4%	0.2%	1.3%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	08:00	07:00	06:00		08:00	04:00					07:00
Vol.	3	94	33	4	12	1		3	2					144
PM Peak	19:00	17:00	17:00	15:00	16:00	12:00	12:00	12:00	16:00					17:00
Vol.	5	49	25	2	13	1	1	2	2					88

Tri-State Traffic Data, Inc.

Page 4

Street: West Pine Grove
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

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
08/26/21	0	2	1	0	0	0	0	1	0	0	0	0	0	4
01:00	0	0	1	0	0	0	0	0	1	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
04:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
05:00	1	30	9	0	4	0	0	0	1	0	0	0	0	45
06:00	1	50	19	0	4	0	0	1	1	0	0	0	0	76
07:00	2	93	23	1	11	0	0	1	0	0	0	0	0	131
08:00	2	48	26	4	8	0	1	1	0	0	0	0	0	90
09:00	2	51	13	0	6	1	0	2	1	0	0	0	0	76
10:00	6	34	20	2	6	0	0	2	0	0	0	0	0	70
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	14	315	113	7	40	1	1	8	5	0	0	0	0	504
Percent	2.8%	62.5%	22.4%	1.4%	7.9%	0.2%	0.2%	1.6%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	08:00	08:00	07:00	09:00	08:00	09:00	01:00					07:00
Vol.	6	93	26	4	11	1	1	2	1					131
PM Peak														
Vol.														
Grand Total	111	2051	756	30	327	17	4	40	26	0	0	0	0	3362
Percent	3.3%	61.0%	22.5%	0.9%	9.7%	0.5%	0.1%	1.2%	0.8%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

Page 5

Street: West Pine Grove
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	47	8	0	9	1	0	1	2	0	0	0	0	68
14:00	1	43	26	1	4	0	0	1	1	0	0	0	0	77
15:00	1	52	30	0	9	1	0	2	1	0	0	0	0	96
16:00	4	59	24	0	8	0	0	5	0	0	0	0	0	100
17:00	0	79	20	0	8	0	0	1	0	0	0	0	0	108
18:00	2	46	18	0	1	0	0	1	0	0	0	0	0	68
19:00	2	33	6	1	3	0	0	0	0	0	0	0	0	45
20:00	0	36	10	0	3	0	0	0	0	0	0	0	0	49
21:00	0	29	6	0	3	0	0	0	0	0	0	0	0	38
22:00	2	27	9	0	2	0	0	0	1	0	0	0	0	41
23:00	1	7	2	0	1	0	0	0	0	0	0	0	0	11
Day Total	13	458	159	2	51	2	0	11	5	0	0	0	0	701
Percent	1.9%	65.3%	22.7%	0.3%	7.3%	0.3%	0.0%	1.6%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.	16:00 4	17:00 79	15:00 30	14:00 1	13:00 9	13:00 1		16:00 5	13:00 2					17:00 108

Tri-State Traffic Data, Inc.

Page 6

Street: West Pine Grove
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

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
08/24/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	1	0	0	0	0	1	0	0	0	0	0	5
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
05:00	0	7	2	0	2	0	0	0	1	0	0	0	0	12
06:00	0	16	8	0	8	0	0	0	0	0	0	0	0	32
07:00	0	22	11	0	6	0	0	1	1	0	0	0	0	41
08:00	1	38	14	2	4	0	0	1	1	0	0	0	0	61
09:00	2	24	16	0	7	2	0	2	1	0	0	0	0	54
10:00	2	24	12	0	2	1	0	1	1	0	0	0	0	43
11:00	1	35	10	0	2	1	0	1	0	0	0	0	0	50
12 PM	0	32	12	1	2	2	0	0	0	0	0	0	0	49
13:00	1	45	11	1	7	0	0	0	0	0	0	0	0	65
14:00	0	50	24	2	6	1	0	1	1	0	0	0	0	85
15:00	5	68	27	2	8	2	0	2	0	0	0	0	0	114
16:00	2	79	19	2	8	0	0	2	0	0	0	0	0	112
17:00	5	83	22	0	5	0	0	0	0	0	0	0	0	115
18:00	1	57	14	0	4	0	0	0	2	0	0	0	0	78
19:00	3	39	12	0	5	0	0	1	0	0	0	0	0	60
20:00	2	31	7	0	1	0	0	1	1	0	0	0	0	43
21:00	0	21	9	0	4	0	0	1	0	0	0	0	0	35
22:00	0	18	4	0	2	0	0	0	0	0	0	0	0	24
23:00	0	2	1	0	2	0	0	0	0	0	0	0	0	5
Day Total	25	698	237	10	85	9	0	15	9	0	0	0	0	1088
Percent	2.3%	64.2%	21.8%	0.9%	7.8%	0.8%	0.0%	1.4%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	09:00	08:00	06:00	09:00		09:00	05:00					08:00
Vol.	2	38	16	2	8	2		2	1					61
PM Peak	15:00	17:00	15:00	14:00	15:00	12:00		15:00	18:00					17:00
Vol.	5	83	27	2	8	2		2	2					115

Tri-State Traffic Data, Inc.

Page 7

Street: West Pine Grove
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

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
08/25/21	0	1	0	1	0	0	0	0	0	0	0	0	0	2
01:00	0	2	0	0	0	0	0	0	1	0	0	0	0	3
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	2	2	0	0	0	0	0	2	0	0	0	0	6
06:00	0	9	8	0	5	0	0	0	0	0	0	0	0	22
07:00	0	20	6	1	10	0	0	1	1	1	0	0	0	40
08:00	0	26	15	2	5	0	0	1	0	0	0	0	0	49
09:00	0	24	11	1	4	0	1	2	0	0	0	0	0	43
10:00	0	26	14	0	3	0	0	1	1	0	0	0	0	45
11:00	0	25	11	1	2	0	0	2	0	0	0	0	0	41
12 PM	2	24	16	0	4	0	0	1	1	0	0	0	0	48
13:00	2	25	18	0	10	1	0	2	2	0	0	0	0	60
14:00	2	44	15	1	7	0	0	3	0	0	0	0	0	72
15:00	3	75	22	2	8	0	0	0	1	0	0	0	0	111
16:00	4	65	29	3	7	0	0	0	0	0	0	0	0	108
17:00	3	87	23	0	8	0	0	1	0	0	0	0	0	122
18:00	0	53	22	1	1	0	0	0	0	0	0	0	0	77
19:00	1	36	9	0	0	1	0	0	0	0	0	0	0	47
20:00	1	28	4	0	3	0	0	0	1	0	0	0	0	37
21:00	0	26	10	0	5	0	0	1	1	0	0	0	0	43
22:00	0	14	7	0	1	0	0	0	1	0	0	0	0	23
23:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Day Total	18	621	244	13	83	2	1	15	12	1	0	0	0	1010
Percent	1.8%	61.5%	24.2%	1.3%	8.2%	0.2%	0.1%	1.5%	1.2%	0.1%	0.0%	0.0%	0.0%	
AM Peak		08:00	08:00	08:00	07:00		09:00	09:00	05:00	07:00				08:00
Vol.		26	15	2	10		1	2	2	1				49
PM Peak	16:00	17:00	16:00	16:00	13:00	13:00		14:00	13:00					17:00
Vol.	4	87	29	3	10	1		3	2					122

Tri-State Traffic Data, Inc.

Page 8

Street: West Pine Grove
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

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
08/26/21	0	4	1	0	0	0	0	0	1	0	0	0	0	6
01:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
02:00	0	4	1	0	0	0	0	0	1	0	0	0	0	6
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	5	3	0	0	0	0	0	1	0	0	0	0	9
06:00	0	11	10	1	5	0	0	0	0	0	0	0	0	27
07:00	0	29	18	1	11	0	1	2	1	0	0	0	0	63
08:00	0	27	14	4	6	1	0	4	1	0	0	0	0	57
09:00	0	13	18	0	2	0	0	1	1	0	0	0	0	35
10:00	0	16	13	2	4	0	0	0	1	0	0	0	0	36
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	0	111	78	8	28	1	1	7	8	0	0	0	0	242
Percent	0.0%	45.9%	32.2%	3.3%	11.6%	0.4%	0.4%	2.9%	3.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.		07:00	07:00	08:00	07:00	08:00	07:00	08:00	00:00					07:00
		29	18	4	11	1	1	4	1					63
PM Peak Vol.														
Grand Total	56	1888	718	33	247	14	2	48	34	1	0	0	0	3041
Percent	1.8%	62.1%	23.6%	1.1%	8.1%	0.5%	0.1%	1.6%	1.1%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

Page 1

Street: West Pine Grove Rd
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	0	0	1	0	1	1	8	26	18	8	2	0	0	65
14:00	0	0	0	0	0	0	5	6	17	16	11	0	0	0	55
15:00	0	0	0	0	0	0	2	14	25	20	12	2	0	0	75
16:00	2	0	1	0	1	0	3	14	25	32	8	3	1	0	90
17:00	4	0	0	0	1	0	3	6	27	23	7	2	0	0	73
18:00	0	1	0	0	0	0	1	11	17	16	6	3	0	0	55
19:00	0	0	0	0	0	1	2	7	11	5	4	1	0	0	31
20:00	0	0	0	0	1	0	2	5	10	3	0	2	1	0	24
21:00	0	0	0	0	0	1	1	4	2	0	1	1	1	0	11
22:00	0	0	0	0	0	0	0	0	5	3	0	0	0	0	8
23:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	6	1	1	1	3	3	20	75	166	136	57	16	3	0	488

Tri-State Traffic Data, Inc.

Page 2

Street: West Pine Grove Rd
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 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
08/24/21	0	1	0	0	0	0	0	2	2	0	0	1	0	0	6
01:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
02:00	0	0	0	0	0	2	0	0	0	2	0	0	0	0	4
03:00	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
04:00	0	0	0	0	0	0	1	3	1	2	2	0	0	0	9
05:00	0	1	0	0	0	0	1	2	15	14	5	1	0	0	39
06:00	2	0	0	0	0	0	2	12	35	19	12	2	1	1	86
07:00	2	1	1	3	0	2	10	48	45	29	9	0	0	0	150
08:00	7	3	3	1	0	3	3	14	30	18	9	4	0	0	95
09:00	0	0	0	0	0	0	1	17	23	20	6	0	2	0	69
10:00	1	0	0	0	0	0	6	18	15	17	9	0	0	0	66
11:00	1	5	0	0	0	1	5	22	18	21	3	0	3	0	79
12 PM	1	0	1	0	1	1	8	18	29	18	11	0	0	0	88
13:00	3	0	0	0	1	1	6	15	23	13	8	1	0	0	71
14:00	2	1	0	0	0	0	1	21	26	11	3	2	0	0	67
15:00	0	1	0	0	0	1	3	17	29	22	5	2	0	0	80
16:00	3	0	2	2	1	0	2	13	31	23	6	1	0	0	84
17:00	3	1	0	1	0	1	6	12	25	16	9	5	0	0	79
18:00	1	0	0	0	0	0	1	7	22	18	6	2	1	1	59
19:00	0	0	0	0	0	1	6	6	12	7	6	0	0	1	39
20:00	2	0	0	0	0	1	3	11	3	6	0	0	0	0	26
21:00	0	0	0	0	0	0	0	0	9	3	1	2	0	0	15
22:00	0	0	0	0	0	0	1	2	2	2	0	0	0	0	7
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	28	14	7	7	3	14	66	260	396	282	111	23	7	3	1221

Tri-State Traffic Data, Inc.

Page 3

Street: West Pine Grove Rd
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 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
08/25/21	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
01:00	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	0	0	0	0	1	5	1	1	1	0	0	0	9
05:00	0	0	0	0	0	0	0	3	15	12	5	1	1	1	38
06:00	0	1	0	0	0	1	3	7	32	23	6	2	0	0	75
07:00	4	4	6	3	0	3	14	31	39	29	8	3	0	0	144
08:00	0	0	0	0	0	2	6	23	25	16	5	1	2	0	80
09:00	0	1	0	0	0	1	5	22	20	21	8	0	0	0	78
10:00	0	0	0	0	1	0	7	20	21	19	7	2	0	0	77
11:00	1	0	0	0	0	1	1	5	21	15	7	1	0	0	52
12 PM	0	2	1	0	2	1	6	10	22	9	7	2	0	0	62
13:00	0	0	0	1	0	0	0	12	18	18	8	1	0	0	58
14:00	2	0	0	0	0	1	8	12	11	21	8	1	0	0	64
15:00	3	1	0	0	0	0	8	15	27	14	3	0	0	0	71
16:00	1	0	0	0	1	0	2	6	30	24	11	2	0	0	77
17:00	1	1	1	0	0	2	6	17	29	25	5	0	1	0	88
18:00	1	2	0	0	0	0	3	9	15	10	8	0	1	1	50
19:00	4	0	0	0	0	0	0	2	12	9	3	2	0	0	32
20:00	1	0	0	0	0	0	6	16	12	10	6	0	0	0	51
21:00	0	0	0	0	0	0	2	6	9	5	3	0	0	1	26
22:00	0	1	0	0	0	0	1	1	2	3	0	0	0	0	8
23:00	0	0	0	0	0	0	0	1	2	1	1	0	0	0	5
Total	18	13	8	4	4	14	80	224	366	286	111	18	5	3	1154

Tri-State Traffic Data, Inc.

Page 4

Street: West Pine Grove Rd
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 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
08/26/21	0	0	0	0	0	0	0	1	1	2	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	2	3	1	1	0	0	0	7
05:00	0	1	0	0	0	0	1	7	15	13	6	1	0	1	45
06:00	0	1	0	0	0	0	1	17	24	22	6	4	1	0	76
07:00	3	1	0	4	4	3	6	31	41	26	11	2	0	0	132
08:00	1	1	0	2	2	3	3	18	32	17	7	3	0	1	90
09:00	1	2	0	0	1	2	5	12	21	23	8	0	0	1	76
10:00	1	3	0	1	0	0	3	22	22	12	4	2	0	0	70
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	9	0	7	7	8	19	110	163	117	43	12	1	3	505
Grand Total	58	37	16	19	17	39	185	669	1091	821	322	69	16	9	3368

15th Percentile : 45 MPH
50th Percentile : 52 MPH
85th Percentile : 59 MPH
95th Percentile : 63 MPH

Stats
Mean Speed(Average) : 52 MPH
10 MPH Pace Speed : 51-60 MPH
Number in Pace : 1912
Percent in Pace : 56.8%
Number of Vehicles > 55 MPH : 1237
Percent of Vehicles > 55 MPH : 36.7%

Tri-State Traffic Data, Inc.

Page 5

Street: West Pine Grove Rd
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	0	0	1	0	0	3	13	29	16	5	1	0	0	68
14:00	1	0	0	0	0	0	4	9	35	23	4	1	0	0	77
15:00	0	0	0	0	0	1	3	14	23	32	18	4	0	1	96
16:00	0	0	0	0	0	0	1	23	38	24	11	3	0	0	100
17:00	2	0	0	0	2	0	2	11	44	32	13	2	0	0	108
18:00	4	0	0	0	1	4	1	17	20	15	5	1	0	0	68
19:00	1	0	0	0	0	0	1	10	22	10	1	0	0	0	45
20:00	0	0	0	0	0	1	4	7	20	13	2	1	1	0	49
21:00	0	0	0	0	0	1	1	3	15	12	4	2	0	0	38
22:00	0	0	0	0	0	0	2	7	16	11	4	1	0	0	41
23:00	0	0	0	0	0	0	0	3	4	3	0	1	0	0	11
Total	8	0	0	1	3	7	22	117	266	191	67	17	1	1	701

Tri-State Traffic Data, Inc.

Page 6

Street: West Pine Grove Rd
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 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
08/24/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	1	2	2	0	0	0	0	5
04:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
05:00	0	0	0	0	0	0	1	1	5	2	3	0	0	0	12
06:00	1	0	0	0	0	0	2	4	9	7	6	3	0	0	32
07:00	1	0	0	0	0	1	2	9	15	8	3	1	1	0	41
08:00	4	0	0	0	0	0	3	19	22	15	0	0	0	0	63
09:00	1	0	0	0	0	1	1	18	24	7	2	0	0	0	54
10:00	0	0	0	0	1	0	2	12	19	9	0	0	0	0	43
11:00	0	0	0	0	1	1	4	7	16	15	6	0	0	0	50
12 PM	2	0	0	0	0	0	2	11	17	12	3	2	0	0	49
13:00	1	0	0	0	0	1	3	6	27	17	10	0	0	0	65
14:00	4	0	0	1	0	0	6	24	22	19	8	1	1	0	86
15:00	2	0	1	2	0	1	9	23	36	28	10	2	0	0	114
16:00	4	0	0	1	2	1	0	26	39	32	8	0	0	0	113
17:00	1	0	1	0	1	1	0	17	34	41	14	3	1	1	115
18:00	2	0	0	0	0	0	1	9	23	32	6	5	0	0	78
19:00	1	1	0	0	0	2	2	12	25	16	1	0	0	0	60
20:00	2	0	0	0	0	5	1	11	13	6	6	0	0	0	44
21:00	0	0	0	0	0	1	0	3	17	9	4	0	0	1	35
22:00	0	0	0	0	0	0	2	8	6	7	1	0	0	0	24
23:00	0	0	0	0	0	0	0	1	2	0	0	2	0	0	5
Total	26	1	2	5	5	15	42	222	374	286	91	19	3	2	1093

Tri-State Traffic Data, Inc.

Page 7

Street: West Pine Grove Rd
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 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
08/25/21	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
02:00	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
05:00	0	0	0	0	0	0	0	0	3	3	0	0	0	0	6
06:00	0	0	0	0	0	0	0	1	7	9	4	0	1	0	22
07:00	3	0	0	0	0	0	4	9	10	10	4	1	0	0	41
08:00	0	0	0	0	1	1	6	15	18	5	2	1	0	0	49
09:00	0	0	0	1	0	1	0	12	17	10	2	0	0	0	43
10:00	0	0	0	0	0	0	5	9	17	10	3	1	0	0	45
11:00	0	0	0	0	0	1	1	10	11	13	3	2	0	0	41
12 PM	0	0	0	1	0	0	1	10	15	13	6	1	0	1	48
13:00	1	0	0	0	0	1	1	11	21	16	8	1	0	0	60
14:00	1	0	0	1	0	2	5	18	19	15	9	2	0	0	72
15:00	1	1	0	0	1	2	4	20	41	28	12	1	0	0	111
16:00	2	0	0	0	6	3	1	17	34	33	11	1	0	0	108
17:00	2	0	0	0	1	1	1	14	40	35	18	10	0	0	122
18:00	0	0	0	0	0	0	0	16	22	32	6	0	0	1	77
19:00	1	0	0	0	0	0	1	10	23	6	6	0	0	0	47
20:00	0	0	0	0	0	3	7	3	10	11	2	1	0	0	37
21:00	2	0	0	0	0	1	2	6	11	12	9	1	0	0	44
22:00	0	0	0	0	0	0	0	5	5	7	4	1	1	0	23
23:00	0	0	0	0	0	0	2	2	2	0	0	0	0	0	6
Total	13	1	1	3	9	16	43	190	328	269	111	24	2	2	1012

Tri-State Traffic Data, Inc.

Page 8

Street: West Pine Grove Rd
Location: West of Ross St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 1
Station ID: 1

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

WB															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
08/26/21	1	0	0	0	0	0	1	2	1	0	1	0	0	0	6
01:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
02:00	0	0	0	1	0	0	0	1	2	0	1	0	1	0	6
03:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
05:00	0	0	0	0	0	0	0	0	2	3	3	0	1	0	9
06:00	0	0	0	0	0	0	1	5	13	3	3	1	0	1	27
07:00	2	0	0	0	1	1	3	12	25	9	7	2	0	1	63
08:00	1	0	0	0	0	1	5	15	14	16	5	0	0	0	57
09:00	0	0	0	0	3	3	3	8	5	8	5	0	0	0	35
10:00	0	0	0	0	1	0	3	4	21	4	3	0	0	0	36
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	4	0	0	1	5	5	16	47	83	45	29	3	2	2	242
Grand Total	51	2	3	10	22	43	123	576	1051	791	298	63	8	7	3048

15th Percentile : 46 MPH
50th Percentile : 53 MPH
85th Percentile : 59 MPH
95th Percentile : 63 MPH

Stats
Mean Speed(Average) : 53 MPH
10 MPH Pace Speed : 51-60 MPH
Number in Pace : 1842
Percent in Pace : 60.4%
Number of Vehicles > 55 MPH : 1167
Percent of Vehicles > 55 MPH : 38.3%

A.3 Automatic Traffic Recorder Data – Raw Data

Water Street (SR 0026), south of Pine Grove Road

Tri-State Traffic Data, Inc.

Page 1

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	2	83	30	1	6	1	0	0	0	0	0	0	0	123
15:00	3	65	29	0	12	1	0	1	0	0	0	0	0	111
16:00	4	85	34	1	8	0	0	1	0	0	0	0	0	133
17:00	1	69	29	0	6	0	0	0	0	0	0	0	0	105
18:00	2	57	20	1	7	1	0	0	0	0	0	0	0	88
19:00	1	45	8	0	6	0	0	0	1	0	0	0	0	61
20:00	0	35	9	0	2	0	0	0	0	0	0	0	0	46
21:00	0	17	4	0	2	0	0	0	0	0	0	0	0	23
22:00	0	14	4	0	1	0	0	0	0	0	0	0	0	19
23:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
Day Total	13	472	169	3	50	3	0	2	1	0	0	0	0	713
Percent	1.8%	66.2%	23.7%	0.4%	7.0%	0.4%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.	16:00 4	16:00 85	16:00 34	14:00 1	15:00 12	14:00 1		15:00 1	19:00 1					16:00 133

Tri-State Traffic Data, Inc.

Page 2

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/24/21	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	5	1	0	1	0	0	0	0	0	0	0	0	7
03:00	0	7	3	0	1	0	0	0	0	0	0	0	0	11
04:00	0	25	13	0	1	0	0	0	0	0	0	0	0	39
05:00	2	69	35	0	8	1	0	0	0	0	0	0	0	115
06:00	6	148	60	0	34	3	0	1	0	0	0	0	0	252
07:00	1	214	71	2	23	0	0	6	1	0	0	0	0	318
08:00	1	147	56	2	15	0	0	1	0	0	0	0	0	222
09:00	1	88	29	0	13	2	0	2	2	0	0	0	0	137
10:00	4	100	32	0	8	2	0	1	0	1	0	0	0	148
11:00	1	65	26	0	9	0	0	0	0	0	0	0	0	101
12 PM	1	73	29	1	6	2	1	0	0	0	0	0	0	113
13:00	2	80	28	0	4	1	0	0	0	0	0	0	0	115
14:00	4	73	30	1	14	1	0	1	0	0	0	0	0	124
15:00	1	63	22	2	9	0	0	1	0	0	0	0	0	98
16:00	3	87	29	2	6	0	0	0	0	0	0	0	0	127
17:00	10	87	20	0	8	0	0	0	0	0	0	0	0	125
18:00	1	57	17	1	6	0	0	0	0	0	0	0	0	82
19:00	1	38	12	0	2	0	0	0	0	0	0	0	0	53
20:00	4	30	9	0	5	0	0	0	0	0	0	0	0	48
21:00	1	25	2	0	1	0	0	0	0	0	0	0	0	29
22:00	0	15	6	0	0	0	0	0	0	0	0	0	0	21
23:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
Day Total	44	1514	534	11	174	12	1	13	3	1	0	0	0	2307
Percent	1.9%	65.6%	23.1%	0.5%	7.5%	0.5%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	06:00	06:00		07:00	09:00	10:00				07:00
Vol.	6	214	71	2	34	3		6	2	1				318
PM Peak	17:00	16:00	14:00	15:00	14:00	12:00	12:00	14:00						16:00
Vol.	10	87	30	2	14	2	1	1						127

Tri-State Traffic Data, Inc.

Page 3

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/25/21	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	23	10	0	4	1	0	0	0	0	0	0	0	38
05:00	0	67	32	0	10	0	0	0	0	0	0	0	0	109
06:00	4	128	60	0	26	0	0	1	0	0	0	0	0	219
07:00	2	194	60	0	24	1	0	4	1	0	0	0	0	286
08:00	2	155	47	3	14	1	0	2	0	0	0	0	0	224
09:00	2	94	23	1	12	0	0	3	0	0	0	0	0	135
10:00	4	107	29	3	9	0	0	1	0	0	0	0	0	153
11:00	2	73	26	1	12	1	0	2	0	0	0	0	0	117
12 PM	1	71	30	1	7	0	0	1	0	0	0	0	0	111
13:00	1	81	29	0	9	3	0	2	0	0	0	0	0	125
14:00	2	77	26	3	6	1	0	2	0	0	0	0	0	117
15:00	1	82	38	2	10	0	0	1	1	0	0	0	0	135
16:00	3	86	18	2	6	0	0	0	0	0	0	0	0	115
17:00	3	74	21	1	11	0	0	2	0	0	0	0	0	112
18:00	1	48	16	0	5	1	0	1	0	0	0	0	0	72
19:00	2	50	21	0	1	0	0	0	0	0	0	0	0	74
20:00	2	35	7	0	3	0	0	0	0	0	0	0	0	47
21:00	0	29	3	0	0	0	0	0	0	0	0	0	0	32
22:00	0	13	3	0	0	0	0	0	0	0	0	0	0	16
23:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
Day Total	32	1504	503	17	169	9	0	22	2	0	0	0	0	2258
Percent	1.4%	66.6%	22.3%	0.8%	7.5%	0.4%	0.0%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	08:00	06:00	04:00		07:00	07:00					07:00
Vol.	4	194	60	3	26	1		4	1					286
PM Peak	16:00	16:00	15:00	14:00	17:00	13:00		13:00	15:00					15:00
Vol.	3	86	38	3	11	3		2	1					135

Tri-State Traffic Data, Inc.

Page 4

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/26/21	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	1	2	0	1	0	0	0	0	0	0	0	0	4
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
04:00	0	27	19	0	4	0	0	0	0	0	0	0	0	50
05:00	0	66	34	0	10	0	0	0	0	0	0	0	0	110
06:00	2	142	60	0	30	0	0	1	0	0	0	0	0	235
07:00	2	206	81	0	22	1	0	5	1	0	0	0	1	319
08:00	2	152	37	2	23	0	0	1	0	0	0	0	0	217
09:00	2	91	41	0	3	1	0	3	0	0	0	0	0	141
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	8	698	275	2	93	2	0	10	1	0	0	0	1	1090
Percent	0.7%	64.0%	25.2%	0.2%	8.5%	0.2%	0.0%	0.9%	0.1%	0.0%	0.0%	0.0%	0.1%	
AM Peak	06:00	07:00	07:00	08:00	06:00	07:00		07:00	07:00				07:00	07:00
Vol.	2	206	81	2	30	1		5	1				1	319
PM Peak														
Vol.														
Grand Total	97	4188	1481	33	486	26	1	47	7	1	0	0	1	6368
Percent	1.5%	65.8%	23.3%	0.5%	7.6%	0.4%	0.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

Page 5

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	3	120	33	0	18	0	0	2	0	0	0	0	0	176
15:00	1	158	58	0	30	0	0	3	0	0	0	0	0	250
16:00	4	195	55	0	38	0	0	1	0	0	0	0	0	293
17:00	2	182	42	0	33	0	0	3	0	0	0	0	0	262
18:00	0	79	29	0	10	0	0	0	0	0	0	0	0	118
19:00	1	64	26	1	13	0	0	0	1	0	0	0	0	106
20:00	0	40	14	0	5	0	0	0	0	0	0	0	0	59
21:00	1	62	9	0	5	0	0	0	0	0	0	0	0	77
22:00	1	43	15	0	8	0	0	0	0	0	0	0	0	67
23:00	0	23	7	0	2	0	0	0	0	0	0	0	0	32
Day Total	13	966	288	1	162	0	0	9	1	0	0	0	0	1440
Percent	0.9%	67.1%	20.0%	0.1%	11.3%	0.0%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.	16:00 4	16:00 195	15:00 58	19:00 1	16:00 38			15:00 3	19:00 1					16:00 293

Tri-State Traffic Data, Inc.

Page 6

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/24/21	0	8	0	0	0	0	0	1	0	0	0	0	0	9
01:00	0	5	7	0	2	0	0	0	0	0	0	0	0	14
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
05:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
06:00	1	29	7	0	4	0	0	2	0	0	0	0	0	43
07:00	2	45	10	1	11	0	0	1	0	0	0	0	0	70
08:00	3	47	25	2	11	1	1	0	1	0	0	0	0	91
09:00	4	42	15	0	10	2	0	0	0	0	0	0	0	73
10:00	1	47	33	0	10	1	0	0	1	0	0	0	0	93
11:00	1	65	16	1	10	1	0	1	0	0	0	0	0	95
12 PM	3	85	25	0	10	0	0	0	0	0	0	0	0	123
13:00	3	80	32	0	15	1	0	2	0	0	0	0	0	133
14:00	2	126	48	0	15	0	0	2	0	0	0	0	0	193
15:00	7	161	62	2	35	0	0	6	0	0	0	0	0	273
16:00	2	201	66	3	31	1	0	2	0	0	0	0	0	306
17:00	1	183	64	0	26	0	0	0	0	0	0	0	0	274
18:00	2	113	22	0	10	1	0	0	0	0	0	0	0	148
19:00	4	69	18	1	7	0	0	0	0	0	0	0	0	99
20:00	0	67	16	0	5	0	0	1	0	0	0	0	0	89
21:00	0	38	14	0	3	0	0	0	0	0	0	0	0	55
22:00	1	28	6	0	5	0	0	0	0	0	0	0	0	40
23:00	0	22	4	0	0	0	0	0	0	0	0	0	0	26
Day Total	37	1478	492	10	220	8	1	18	2	0	0	0	0	2266
Percent	1.6%	65.2%	21.7%	0.4%	9.7%	0.4%	0.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	10:00	08:00	07:00	09:00	08:00	06:00	08:00					11:00
Vol.	4	65	33	2	11	2	1	2	1					95
PM Peak	15:00	16:00	16:00	16:00	15:00	13:00		15:00						16:00
Vol.	7	201	66	3	35	1		6						306

Tri-State Traffic Data, Inc.

Page 7

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/25/21	0	9	2	0	0	0	0	0	0	0	0	0	0	11
01:00	0	6	5	0	0	0	0	0	0	0	0	0	0	11
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
05:00	0	9	3	0	1	0	0	0	0	0	0	0	0	13
06:00	1	27	7	3	5	0	0	1	0	0	0	0	0	44
07:00	0	38	14	2	3	0	0	1	0	0	0	0	0	58
08:00	2	52	16	3	6	0	0	1	0	0	0	0	0	80
09:00	1	68	20	0	11	0	0	1	0	0	0	0	0	101
10:00	0	67	27	1	13	0	0	2	0	0	0	0	0	110
11:00	3	73	14	0	10	1	0	3	1	0	0	0	0	105
12 PM	2	84	26	1	11	2	0	4	0	0	0	0	0	130
13:00	4	77	44	1	8	0	0	1	0	0	0	0	0	135
14:00	3	113	57	1	17	1	0	3	1	0	0	0	0	196
15:00	2	167	70	3	23	0	0	5	0	0	0	0	0	270
16:00	2	208	61	2	29	0	0	0	0	0	0	0	0	302
17:00	5	190	50	0	25	1	0	2	0	0	0	0	0	273
18:00	2	102	28	0	11	1	0	0	0	0	0	0	0	144
19:00	3	74	20	0	12	0	0	0	0	0	0	0	0	109
20:00	1	52	14	0	3	0	0	1	0	0	0	0	0	71
21:00	1	35	6	0	5	0	0	0	0	0	0	0	0	47
22:00	0	32	9	0	2	0	0	0	0	0	0	0	0	43
23:00	0	20	2	0	1	0	0	0	0	0	0	0	0	23
Day Total	32	1514	495	17	196	6	0	25	2	0	0	0	0	2287
Percent	1.4%	66.2%	21.6%	0.7%	8.6%	0.3%	0.0%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	06:00	10:00	11:00		11:00	11:00					10:00
Vol.	3	73	27	3	13	1		3	1					110
PM Peak	17:00	16:00	15:00	15:00	16:00	12:00		15:00	14:00					16:00
Vol.	5	208	70	3	29	2		5	1					302

Tri-State Traffic Data, Inc.

Page 8

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/26/21	0	4	0	0	1	0	0	0	0	0	0	0	0	5
01:00	0	5	5	0	0	0	0	0	0	0	0	0	0	10
02:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
03:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6
05:00	0	2	3	0	0	0	0	1	0	0	0	0	0	6
06:00	2	25	6	0	7	1	0	2	0	0	0	0	0	43
07:00	1	51	10	2	7	0	0	0	0	0	0	0	0	71
08:00	1	46	23	1	7	2	0	0	0	0	0	0	0	80
09:00	1	46	13	0	7	0	0	2	1	0	0	0	0	70
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	5	192	63	3	30	3	0	5	1	0	0	0	0	302
Percent	1.7%	63.6%	20.9%	1.0%	9.9%	1.0%	0.0%	1.7%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	08:00	07:00	06:00	08:00		06:00	09:00					08:00
Vol.	2	51	23	2	7	2		2	1					80
PM Peak														
Vol.														
Grand Total	87	4150	1338	31	608	17	1	57	6	0	0	0	0	6295
Percent	1.4%	65.9%	21.3%	0.5%	9.7%	0.3%	0.0%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

Page 1

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	5	3	4	3	23	39	30	13	3	0	0	0	0	0	123
15:00	1	3	4	2	17	42	28	12	2	0	0	0	0	0	111
16:00	3	0	1	5	25	49	27	19	3	1	0	0	0	0	133
17:00	1	0	0	11	10	37	35	6	4	0	1	0	0	0	105
18:00	0	0	3	5	21	16	27	12	4	0	0	0	0	0	88
19:00	0	1	4	7	8	17	13	8	3	0	0	0	0	0	61
20:00	1	0	0	2	9	10	14	7	1	2	0	0	0	0	46
21:00	0	0	0	3	2	9	5	4	0	0	0	0	0	0	23
22:00	0	0	0	4	1	6	4	2	2	0	0	0	0	0	19
23:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4
Total	11	7	16	43	117	227	183	83	22	3	1	0	0	0	713

Tri-State Traffic Data, Inc.

Page 2

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 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
08/24/21	0	0	0	0	2	0	0	2	0	1	0	0	0	0	5
01:00	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4
02:00	0	0	0	1	0	1	2	2	0	0	1	0	0	0	7
03:00	1	0	0	0	2	4	1	2	0	1	0	0	0	0	11
04:00	0	0	0	0	3	12	14	9	1	0	0	0	0	0	39
05:00	0	0	0	2	17	34	44	17	1	0	0	0	0	0	115
06:00	4	5	4	19	47	93	64	14	2	0	0	0	0	0	252
07:00	3	10	37	47	66	79	64	10	3	0	0	0	0	0	319
08:00	13	1	7	16	44	73	57	8	2	1	0	0	0	0	222
09:00	1	6	10	9	34	41	26	10	0	0	0	0	0	0	137
10:00	3	9	6	9	28	53	32	7	1	0	0	0	0	0	148
11:00	1	0	0	4	16	38	30	11	1	0	0	0	0	0	101
12 PM	0	4	5	7	24	33	24	11	5	0	0	0	0	0	113
13:00	1	1	1	6	9	37	35	20	5	0	0	0	0	0	115
14:00	2	1	8	10	24	37	30	8	4	1	0	0	0	0	125
15:00	3	0	8	4	13	31	17	21	1	0	0	0	0	0	98
16:00	11	0	1	6	21	43	27	12	5	1	0	0	0	0	127
17:00	4	0	3	7	27	36	32	10	5	1	0	0	0	0	125
18:00	2	0	0	0	7	22	33	13	5	0	0	0	0	0	82
19:00	0	0	1	2	15	19	13	3	0	0	0	0	0	0	53
20:00	1	1	0	4	14	20	5	2	0	1	0	0	0	0	48
21:00	0	0	0	2	4	14	3	5	1	0	0	0	0	0	29
22:00	1	0	0	1	0	8	6	3	2	0	0	0	0	0	21
23:00	0	0	0	0	1	5	5	2	0	0	0	0	0	0	13
Total	51	38	91	156	418	734	566	203	44	7	1	0	0	0	2309

Tri-State Traffic Data, Inc.

Page 3

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 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
08/25/21	0	0	0	0	1	4	2	0	0	0	0	0	0	0	7
01:00	0	0	0	0	0	2	1	0	1	0	0	0	0	0	4
02:00	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
03:00	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4
04:00	0	0	0	0	4	10	10	9	3	1	1	0	0	0	38
05:00	1	0	0	0	7	35	45	20	1	0	0	0	0	0	109
06:00	1	0	3	24	43	73	52	23	0	0	0	0	0	0	219
07:00	10	6	24	51	78	75	34	9	0	0	0	0	0	0	287
08:00	16	4	18	28	60	61	31	5	1	0	0	0	0	0	224
09:00	1	2	3	9	31	57	23	7	2	0	0	0	0	0	135
10:00	1	8	5	11	36	52	31	8	1	0	0	0	0	0	153
11:00	4	8	2	8	25	32	29	6	3	0	0	0	0	0	117
12 PM	6	0	2	6	26	35	28	7	4	0	0	0	0	0	114
13:00	4	9	3	10	13	35	34	15	2	0	1	0	0	0	126
14:00	3	0	4	7	18	32	32	19	2	0	0	0	0	0	117
15:00	7	1	7	6	15	44	36	18	3	0	0	0	0	0	137
16:00	5	1	2	6	19	26	40	15	1	0	0	1	0	0	116
17:00	3	0	1	5	23	27	30	20	3	0	0	0	0	0	112
18:00	0	0	6	5	12	23	15	9	1	1	0	0	0	0	72
19:00	2	0	0	6	14	29	18	4	1	0	0	0	0	0	74
20:00	0	0	0	6	10	18	9	3	1	0	0	0	0	0	47
21:00	1	0	0	3	9	9	5	2	2	1	0	0	0	0	32
22:00	0	0	0	0	1	6	6	2	1	0	0	0	0	0	16
23:00	0	1	0	0	1	1	0	1	0	0	0	0	0	0	4
Total	65	40	80	192	446	687	513	204	33	3	2	1	0	0	2266

Tri-State Traffic Data, Inc.

Page 4

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 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
08/26/21	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4
01:00	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
02:00	0	0	0	1	0	0	1	1	0	0	0	0	0	0	3
03:00	0	0	0	0	0	3	1	3	0	0	0	0	0	0	7
04:00	0	0	0	0	2	12	24	7	4	0	1	0	0	0	50
05:00	0	0	0	1	11	33	41	17	6	1	0	0	0	0	110
06:00	2	0	5	20	48	83	58	17	1	1	0	0	0	0	235
07:00	11	15	12	36	89	97	52	8	1	0	0	0	0	0	321
08:00	22	18	7	15	37	71	33	11	4	1	0	0	0	0	219
09:00	3	2	4	12	36	54	21	7	2	0	0	0	0	0	141
10:00	2	4	11	9	28	38	19	9	0	0	0	0	0	0	120
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	40	39	39	95	253	394	252	80	18	3	1	0	0	0	1214
Grand Total	167	124	226	486	1234	2042	1514	570	117	16	5	1	0	0	6502

15th Percentile : 29 MPH
50th Percentile : 37 MPH
85th Percentile : 44 MPH
95th Percentile : 48 MPH

Stats
Mean Speed(Average) : 37 MPH
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 3556
Percent in Pace : 54.7%
Number of Vehicles > 55 MPH : 22
Percent of Vehicles > 55 MPH : 0.3%

Tri-State Traffic Data, Inc.

Page 5

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	4	0	0	16	24	84	37	11	0	0	0	0	0	0	176
15:00	4	1	0	11	24	90	94	23	1	2	0	0	0	0	250
16:00	2	0	1	7	52	132	81	14	4	0	0	0	0	0	293
17:00	2	0	4	7	38	91	96	22	2	0	0	0	0	0	262
18:00	2	0	1	6	22	41	33	12	2	0	0	0	0	0	119
19:00	2	0	2	11	21	45	19	3	2	1	0	0	0	0	106
20:00	0	0	0	4	17	27	7	2	2	0	0	0	0	0	59
21:00	1	0	1	6	15	30	16	6	2	0	0	0	0	0	77
22:00	0	0	1	2	9	26	22	6	1	0	0	0	0	0	67
23:00	0	0	0	1	5	7	14	5	0	0	0	0	0	0	32
Total	17	1	10	71	227	573	419	104	16	3	0	0	0	0	1441

Tri-State Traffic Data, Inc.

Page 6

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 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
08/24/21	0	0	0	3	3	3	0	0	0	0	0	0	0	0	9
01:00	0	0	1	0	2	3	6	2	0	0	0	0	0	0	14
02:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
03:00	1	0	0	0	0	3	2	0	0	0	0	0	0	0	6
04:00	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4
05:00	0	0	0	1	0	3	1	2	0	0	0	0	0	0	7
06:00	3	0	0	2	7	15	12	3	0	0	1	0	0	0	43
07:00	5	1	2	4	17	24	16	0	2	0	0	0	0	0	71
08:00	1	1	11	9	22	29	13	4	0	0	1	0	0	0	91
09:00	0	0	1	4	18	25	19	4	2	0	0	0	0	0	73
10:00	2	0	0	5	24	36	21	5	0	0	0	0	0	0	93
11:00	1	0	1	4	19	35	25	9	1	0	0	0	0	0	95
12 PM	3	0	0	8	28	46	31	7	0	0	0	0	0	0	123
13:00	2	0	1	7	22	59	36	4	3	0	0	0	0	0	134
14:00	5	1	5	6	29	75	58	14	1	0	0	0	0	0	194
15:00	5	0	6	7	35	111	85	20	2	1	0	0	1	0	273
16:00	6	2	8	14	39	126	90	22	1	0	0	0	0	0	308
17:00	4	1	2	14	41	115	77	19	2	0	0	0	0	0	275
18:00	2	1	1	5	29	62	41	5	1	0	1	0	0	0	148
19:00	0	2	0	8	25	30	27	6	0	1	0	0	0	0	99
20:00	1	0	3	1	16	38	25	5	0	0	0	0	0	0	89
21:00	0	0	0	4	13	24	13	0	0	1	0	0	0	0	55
22:00	1	0	0	0	8	15	11	2	1	2	0	0	0	0	40
23:00	0	0	1	3	6	4	9	2	1	0	0	0	0	0	26
Total	42	10	43	109	404	883	620	135	17	5	3	0	1	0	2272

Tri-State Traffic Data, Inc.

Page 7

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 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
08/25/21	0	0	0	0	6	3	1	1	0	0	0	0	0	0	11
01:00	0	0	0	1	1	3	6	0	0	0	0	0	0	0	11
02:00	0	1	0	0	1	0	0	1	0	0	0	0	0	0	3
03:00	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
04:00	0	0	0	0	2	2	0	1	0	0	0	0	0	0	5
05:00	0	0	0	1	2	6	2	2	0	0	0	0	0	0	13
06:00	1	0	5	4	6	13	10	5	0	0	0	0	0	0	44
07:00	4	0	0	4	7	26	15	1	1	0	0	0	0	0	58
08:00	4	0	2	3	19	31	21	0	1	0	0	0	0	0	81
09:00	1	0	2	7	20	39	27	4	1	0	0	0	0	0	101
10:00	6	0	1	8	22	43	27	2	1	0	0	0	0	0	110
11:00	3	1	0	6	23	45	21	6	1	0	0	0	0	0	106
12 PM	3	1	4	7	26	54	29	5	0	1	0	0	0	0	130
13:00	0	0	1	5	21	61	37	9	1	0	0	0	0	0	135
14:00	5	0	3	17	31	77	47	14	3	0	0	0	0	0	197
15:00	4	3	7	25	50	94	70	14	4	0	0	0	0	0	271
16:00	15	1	14	10	35	105	101	20	0	1	0	0	0	0	302
17:00	4	0	1	8	50	117	74	18	2	0	0	0	0	0	274
18:00	4	2	2	8	30	51	38	9	0	0	0	0	0	0	144
19:00	3	0	2	5	20	41	29	9	0	0	0	1	0	0	110
20:00	2	1	1	2	12	27	20	5	1	0	0	0	0	0	71
21:00	0	0	2	5	13	17	8	2	0	0	0	0	0	0	47
22:00	0	1	0	1	6	21	9	5	0	0	0	0	0	0	43
23:00	0	0	0	1	3	8	10	0	0	0	0	1	0	0	23
Total	59	11	47	128	406	886	603	133	16	2	0	2	0	0	2293

Tri-State Traffic Data, Inc.

Page 8

Street: Water St
Location: South of Butternut St
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 4
Station ID: 4

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 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
08/26/21	0	0	0	0	2	2	1	0	0	0	0	0	0	0	5
01:00	0	1	0	0	0	5	1	3	0	0	0	0	0	0	10
02:00	0	0	0	0	1	3	1	1	0	0	0	0	0	0	6
03:00	0	0	0	1	1	1	2	0	0	0	0	0	0	0	5
04:00	0	0	0	0	2	4	0	0	0	0	0	0	0	0	6
05:00	0	0	0	0	3	1	1	1	0	0	0	0	0	0	6
06:00	2	0	6	4	4	19	6	2	0	0	0	0	0	0	43
07:00	4	1	0	3	18	29	17	1	0	0	0	0	0	0	73
08:00	6	4	0	13	20	23	12	3	0	0	0	0	0	0	81
09:00	5	1	1	14	19	20	4	6	0	0	0	0	0	0	70
10:00	8	3	5	15	27	32	13	3	0	0	0	0	0	0	106
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	25	10	12	50	97	139	58	20	0	0	0	0	0	0	411
Grand Total	143	32	112	358	1134	2481	1700	392	49	10	3	2	1	0	6417

15th Percentile : 31 MPH
50th Percentile : 37 MPH
85th Percentile : 43 MPH
95th Percentile : 46 MPH

Stats
Mean Speed(Average) : 38 MPH
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 4181
Percent in Pace : 65.2%
Number of Vehicles > 55 MPH : 16
Percent of Vehicles > 55 MPH : 0.2%

A.4 Automatic Traffic Recorder Data – Raw Data

Nixon Road (T-334), north of Pine Grove Road

Tri-State Traffic Data, Inc.

Page 1

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	1	17	4	0	2	0	0	1	0	0	0	0	0	25
13:00	0	18	11	0	2	0	0	0	0	0	0	0	0	31
14:00	1	27	9	0	5	1	0	0	0	0	0	0	0	43
15:00	0	13	6	0	6	0	0	0	0	0	0	0	0	25
16:00	1	20	7	0	5	0	0	1	0	0	0	0	0	34
17:00	0	15	9	0	4	0	0	0	0	0	0	0	0	28
18:00	1	18	6	0	3	0	0	0	0	0	0	0	0	28
19:00	2	10	1	0	0	0	0	1	0	0	0	0	0	14
20:00	0	10	1	0	2	0	0	0	0	0	0	0	0	13
21:00	0	3	3	0	1	0	0	0	0	0	0	0	0	7
22:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Day Total	6	157	59	0	30	1	0	3	0	0	0	0	0	256
Percent	2.3%	61.3%	23.0%	0.0%	11.7%	0.4%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.	19:00 2	14:00 27	13:00 11		15:00 6	14:00 1		12:00 1						14:00 43

Tri-State Traffic Data, Inc.

Page 2

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/24/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
05:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
06:00	1	21	8	0	9	0	0	0	0	0	0	0	0	39
07:00	1	39	11	0	7	0	0	0	0	0	0	0	0	58
08:00	0	30	8	3	6	0	0	1	0	0	0	0	0	48
09:00	1	18	8	0	5	0	0	0	0	0	0	0	0	32
10:00	0	24	10	0	6	0	0	0	0	0	0	0	0	40
11:00	0	18	4	0	4	0	0	0	0	0	0	0	0	26
12 PM	2	15	2	0	2	0	0	1	0	0	0	0	0	22
13:00	0	28	5	0	3	0	0	0	0	0	0	0	0	36
14:00	2	16	4	0	4	0	0	0	0	0	0	0	0	26
15:00	0	34	12	1	4	0	0	0	0	0	0	0	0	51
16:00	0	28	7	1	3	0	0	0	0	0	0	0	0	39
17:00	0	26	6	0	4	0	0	0	0	0	0	0	0	36
18:00	1	23	2	0	1	0	0	0	0	0	0	0	0	27
19:00	0	16	2	0	3	0	0	0	0	0	0	0	0	21
20:00	0	16	0	0	1	0	0	0	0	0	0	0	0	17
21:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4
22:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Day Total	8	371	93	5	65	0	0	2	0	0	0	0	0	544
Percent	1.5%	68.2%	17.1%	0.9%	11.9%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	08:00	06:00			08:00						07:00
Vol.	1	39	11	3	9			1						58
PM Peak	12:00	15:00	15:00	15:00	14:00			12:00						15:00
Vol.	2	34	12	1	4			1						51

Tri-State Traffic Data, Inc.

Page 3

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/25/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
05:00	0	5	4	0	2	0	0	0	0	0	0	0	0	11
06:00	0	23	6	0	8	0	0	0	0	0	0	0	0	37
07:00	0	30	16	0	5	0	0	0	0	0	0	0	0	51
08:00	0	43	14	5	6	0	0	0	0	0	0	0	0	68
09:00	0	23	7	0	2	0	0	1	0	0	0	0	0	33
10:00	0	18	6	0	2	0	0	1	0	0	0	0	0	27
11:00	1	14	2	0	3	0	0	0	0	0	0	0	0	20
12 PM	1	16	6	0	6	0	0	0	0	0	0	0	0	29
13:00	0	17	6	0	0	0	0	0	0	0	0	0	0	23
14:00	0	15	12	0	1	0	0	0	0	0	0	0	0	28
15:00	0	20	8	1	4	0	0	0	0	0	0	0	0	33
16:00	0	27	0	0	1	0	0	0	0	0	0	0	0	28
17:00	0	17	6	0	3	0	0	2	0	0	0	0	0	28
18:00	0	17	4	0	3	0	0	0	0	0	0	0	0	24
19:00	0	14	4	0	0	0	0	0	0	0	0	0	0	18
20:00	0	12	6	0	0	0	0	0	0	0	0	0	0	18
21:00	0	7	3	0	1	0	0	0	0	0	0	0	0	11
22:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Day Total	2	327	113	6	48	0	0	4	0	0	0	0	0	500
Percent	0.4%	65.4%	22.6%	1.2%	9.6%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	07:00	08:00	06:00			09:00						08:00
Vol.	1	43	16	5	8			1						68
PM Peak	12:00	16:00	14:00	15:00	12:00			17:00						15:00
Vol.	1	27	12	1	6			2						33

Tri-State Traffic Data, Inc.

Page 4

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/26/21	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	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	3	2	0	1	0	0	0	0	0	0	0	0	6
05:00	0	8	1	0	1	0	0	0	0	0	0	0	0	10
06:00	1	24	11	0	8	0	0	0	0	0	0	0	0	44
07:00	0	33	14	1	4	0	0	1	0	0	0	0	0	53
08:00	0	36	7	3	5	0	0	0	0	0	0	0	0	51
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	1	105	36	4	19	0	0	1	0	0	0	0	0	166
Percent	0.6%	63.3%	21.7%	2.4%	11.4%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	07:00	08:00	06:00			07:00						07:00
Vol.	1	36	14	3	8			1						53
PM Peak														
Vol.														
Grand Total	17	960	301	15	162	1	0	10	0	0	0	0	0	1466
Percent	1.2%	65.5%	20.5%	1.0%	11.1%	0.1%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

Page 5

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	2	24	5	0	0	0	0	0	0	0	0	0	0	31
13:00	0	15	8	0	2	0	0	0	0	0	0	0	0	25
14:00	0	30	6	0	1	0	0	0	0	0	0	0	0	37
15:00	1	19	17	0	1	0	0	1	0	0	0	0	0	39
16:00	0	34	13	0	5	0	0	0	0	0	0	0	0	52
17:00	0	31	9	0	3	0	0	0	0	0	0	0	0	43
18:00	0	26	3	0	1	0	0	0	0	0	0	0	0	30
19:00	0	10	3	0	2	0	0	0	0	0	0	0	0	15
20:00	0	9	2	0	1	0	0	0	0	0	0	0	0	12
21:00	0	13	2	0	1	0	0	0	0	0	0	0	0	16
22:00	1	5	0	0	1	0	0	0	0	0	0	0	0	7
23:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
Day Total	4	221	70	0	18	0	0	1	0	0	0	0	0	314
Percent	1.3%	70.4%	22.3%	0.0%	5.7%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.														
PM Peak Vol.	12:00 2	16:00 34	15:00 17		16:00 5			15:00 1						16:00 52

Tri-State Traffic Data, Inc.

Page 6

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/24/21	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
06:00	0	4	0	0	2	0	0	0	0	0	0	0	0	6
07:00	0	19	6	1	1	0	0	0	0	0	0	0	0	27
08:00	0	15	5	0	1	0	0	0	0	0	0	0	0	21
09:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
10:00	0	5	5	0	3	0	0	1	0	0	0	0	0	14
11:00	0	17	8	0	3	0	0	0	0	0	0	0	0	28
12 PM	1	20	5	0	0	0	0	0	0	0	0	0	0	26
13:00	2	15	1	0	2	0	0	1	0	0	0	0	0	21
14:00	0	20	13	2	2	0	0	0	0	0	0	0	0	37
15:00	0	35	10	0	2	0	0	1	0	0	0	0	0	48
16:00	0	42	9	2	3	0	0	0	0	0	0	0	0	56
17:00	1	40	12	0	3	0	0	0	0	0	0	0	0	56
18:00	1	20	7	0	1	0	0	0	0	0	0	0	0	29
19:00	0	21	7	0	3	0	0	0	0	0	0	0	0	31
20:00	0	10	2	0	0	0	0	0	0	0	0	0	0	12
21:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
22:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
23:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
Day Total	5	320	95	5	28	0	0	3	0	0	0	0	0	456
Percent	1.1%	70.2%	20.8%	1.1%	6.1%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.		07:00 19	11:00 8	07:00 1	10:00 3			10:00 1						11:00 28
PM Peak Vol.	13:00 2	16:00 42	14:00 13	14:00 2	16:00 3			13:00 1						16:00 56

Tri-State Traffic Data, Inc.

Page 7

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/25/21	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
06:00	0	3	1	0	2	0	0	0	0	0	0	0	0	6
07:00	0	24	5	1	0	0	0	0	0	0	0	0	0	30
08:00	0	19	6	0	1	0	0	0	0	0	0	0	0	26
09:00	1	15	5	0	0	0	0	0	0	0	0	0	0	21
10:00	0	9	4	0	1	0	0	0	0	0	0	0	0	14
11:00	1	16	5	0	1	0	0	0	0	0	0	0	0	23
12 PM	0	14	3	0	2	0	0	0	0	0	0	0	0	19
13:00	1	17	2	0	3	0	0	0	0	0	0	0	0	23
14:00	0	19	10	2	1	0	0	0	0	0	0	0	0	32
15:00	0	26	12	0	1	0	0	0	0	0	0	0	0	39
16:00	1	35	21	2	3	1	0	0	0	0	0	0	0	63
17:00	2	25	10	0	5	0	0	0	0	0	0	0	0	42
18:00	0	29	7	0	1	0	0	0	0	0	0	0	0	37
19:00	2	16	6	0	0	0	0	0	0	0	0	0	0	24
20:00	0	16	4	0	0	0	0	0	0	0	0	0	0	20
21:00	0	4	2	0	1	0	0	0	0	0	0	0	0	7
22:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Day Total	8	300	104	5	22	1	0	0	0	0	0	0	0	440
Percent	1.8%	68.2%	23.6%	1.1%	5.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	08:00	07:00	06:00									07:00
Vol.	1	24	6	1	2									30
PM Peak	17:00	16:00	16:00	14:00	17:00	16:00								16:00
Vol.	2	35	21	2	5	1								63

Tri-State Traffic Data, Inc.

Page 8

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

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
08/26/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:00	1	3	0	0	4	0	0	1	0	0	0	0	0	9
07:00	0	19	4	1	0	0	0	0	0	0	0	0	0	24
08:00	0	16	6	0	0	0	0	0	0	0	0	0	0	22
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	1	42	10	1	4	0	0	1	0	0	0	0	0	59
Percent	1.7%	71.2%	16.9%	1.7%	6.8%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.	06:00	07:00	08:00	07:00	06:00			06:00						07:00
	1	19	6	1	4			1						24
PM Peak Vol.														
Grand Total	18	883	279	11	72	1	0	5	0	0	0	0	0	1269
Percent	1.4%	69.6%	22.0%	0.9%	5.7%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

Tri-State Traffic Data, Inc.

Page 1

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	2	2	0	3	1	12	4	2	0	0	0	0	0	0	26
13:00	0	0	0	0	6	11	14	0	0	0	0	0	0	0	31
14:00	0	0	3	1	9	10	17	3	0	0	0	0	0	0	43
15:00	1	0	1	0	2	8	7	5	1	0	0	0	0	0	25
16:00	0	0	0	0	4	14	10	6	0	0	0	0	0	0	34
17:00	0	0	2	2	2	5	12	2	3	0	0	0	0	0	28
18:00	0	0	1	0	7	9	7	4	0	0	0	0	0	0	28
19:00	0	2	0	0	0	6	3	2	1	0	0	0	0	0	14
20:00	0	0	1	0	3	6	3	0	0	0	0	0	0	0	13
21:00	0	0	1	0	1	2	2	1	0	0	0	0	0	0	7
22:00	0	1	1	0	1	0	3	1	0	0	0	0	0	0	7
23:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	3	5	11	6	36	83	82	26	5	0	0	0	0	0	257

Tri-State Traffic Data, Inc.

Page 2

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 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
08/24/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	1	2	1	0	0	0	0	0	4
05:00	0	0	0	0	0	2	4	4	3	0	0	0	0	0	13
06:00	0	0	0	1	5	11	11	7	2	2	0	0	0	0	39
07:00	0	1	0	2	12	18	17	7	0	1	0	0	0	0	58
08:00	3	4	6	2	11	9	11	2	0	0	0	0	0	0	48
09:00	0	0	0	0	4	12	10	5	1	0	0	0	0	0	32
10:00	0	2	1	1	6	12	13	4	1	0	0	0	0	0	40
11:00	0	1	3	0	2	12	4	2	2	0	0	0	0	0	26
12 PM	0	2	2	1	2	7	4	2	0	2	0	0	0	0	22
13:00	0	1	4	2	7	9	11	2	0	0	0	0	0	0	36
14:00	0	3	0	0	1	10	6	6	0	0	0	0	0	0	26
15:00	0	0	2	3	6	10	18	11	1	0	0	0	0	0	51
16:00	0	0	4	0	4	12	11	7	1	0	0	0	0	0	39
17:00	1	0	3	0	3	13	11	4	1	0	0	0	0	0	36
18:00	1	0	5	1	2	10	4	1	2	1	0	0	0	0	27
19:00	0	1	3	0	1	8	5	3	0	0	0	0	0	0	21
20:00	0	1	2	2	2	4	3	1	2	0	0	0	0	0	17
21:00	0	0	0	0	1	0	2	1	0	0	0	0	0	0	4
22:00	0	0	0	0	0	1	0	1	1	0	0	0	0	0	3
23:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	5	16	35	15	69	161	146	73	18	6	0	0	0	0	544

Tri-State Traffic Data, Inc.

Page 3

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 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
08/25/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	1	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	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	1	3	0	0	0	0	0	0	4
05:00	1	0	1	0	0	1	2	4	2	0	0	0	0	0	11
06:00	0	0	1	1	5	7	13	5	4	1	0	0	0	0	37
07:00	0	0	0	1	7	23	13	6	1	0	0	0	0	0	51
08:00	0	2	2	6	13	23	18	3	1	0	0	0	0	0	68
09:00	0	4	1	0	3	14	6	3	2	0	0	0	0	0	33
10:00	0	0	0	0	1	11	10	4	1	0	0	0	0	0	27
11:00	1	1	0	3	2	5	5	2	1	0	0	0	0	0	20
12 PM	0	0	3	0	3	6	13	4	0	0	0	0	0	0	29
13:00	0	0	1	0	1	10	8	3	0	0	0	0	0	0	23
14:00	0	1	0	0	4	10	6	7	0	0	0	0	0	0	28
15:00	0	0	1	1	6	6	10	7	2	0	0	0	0	0	33
16:00	0	0	1	2	0	9	8	6	2	0	0	0	0	0	28
17:00	0	0	2	1	1	14	8	1	1	0	0	0	0	0	28
18:00	0	0	2	1	6	8	2	3	2	0	0	0	0	0	24
19:00	1	0	1	0	3	6	5	1	0	0	1	0	0	0	18
20:00	0	2	2	1	2	5	5	0	1	0	0	0	0	0	18
21:00	0	0	0	0	1	1	3	5	0	0	1	0	0	0	11
22:00	0	0	0	0	0	2	2	3	0	0	0	0	0	0	7
23:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	3	10	18	17	59	161	139	70	20	1	2	0	0	0	500

Tri-State Traffic Data, Inc.

Page 4

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 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
08/26/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	2	1	3	0	0	0	0	0	6
05:00	0	0	0	0	1	3	0	4	1	0	1	0	0	0	10
06:00	0	1	1	0	6	12	13	7	4	0	0	0	0	0	44
07:00	0	1	0	4	9	18	15	3	2	0	1	0	0	0	53
08:00	0	5	2	6	10	12	12	2	2	0	0	0	0	0	51
09:00	1	1	2	1	4	5	4	7	2	0	0	0	0	0	27
10:00	1	1	0	0	1	3	6	2	1	0	0	0	0	0	15
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	2	9	5	11	31	55	52	26	15	0	2	0	0	0	208
Grand Total	13	40	69	49	195	460	419	195	58	7	4	0	0	0	1509

15th Percentile : 31 MPH
50th Percentile : 39 MPH
85th Percentile : 45 MPH
95th Percentile : 49 MPH

Stats
Mean Speed(Average) : 39 MPH
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 879
Percent in Pace : 58.3%
Number of Vehicles > 55 MPH : 11
Percent of Vehicles > 55 MPH : 0.7%

Tri-State Traffic Data, Inc.

Page 5

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 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
08/23/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	1	2	3	4	2	10	7	1	0	1	0	0	0	0	31
13:00	0	0	0	3	5	5	8	4	0	0	0	0	0	0	25
14:00	1	1	2	3	4	11	11	3	1	0	0	0	0	0	37
15:00	0	1	0	2	8	16	5	6	1	0	0	0	0	0	39
16:00	2	0	0	9	8	17	9	7	0	0	0	0	0	0	52
17:00	0	1	0	3	5	20	12	2	0	0	0	0	0	0	43
18:00	0	2	1	4	4	9	7	2	1	0	0	0	0	0	30
19:00	0	0	0	0	5	5	4	1	0	0	0	0	0	0	15
20:00	0	0	0	1	2	2	4	2	1	0	0	0	0	0	12
21:00	0	0	3	0	7	2	4	0	0	0	0	0	0	0	16
22:00	0	0	0	1	3	1	0	1	1	0	0	0	0	0	7
23:00	0	0	0	0	2	2	1	2	0	0	0	0	0	0	7
Total	4	7	9	30	55	100	72	31	5	1	0	0	0	0	314

Tri-State Traffic Data, Inc.

Page 6

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 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
08/24/21	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4
06:00	0	1	0	1	0	1	3	0	0	0	0	0	0	0	6
07:00	2	0	3	3	6	8	5	1	0	0	0	0	0	0	28
08:00	1	0	1	3	3	8	4	1	0	0	0	0	0	0	21
09:00	0	0	0	0	2	7	3	1	0	0	0	0	0	0	13
10:00	0	1	0	1	0	6	5	1	0	0	0	0	0	0	14
11:00	1	0	0	1	9	8	7	1	1	0	0	0	0	0	28
12 PM	2	1	1	2	6	8	5	0	1	0	0	0	0	0	26
13:00	0	0	0	3	4	7	4	3	0	0	0	0	0	0	21
14:00	0	0	2	1	8	12	11	3	0	0	0	0	0	0	37
15:00	1	0	3	0	8	12	16	7	1	0	0	0	0	0	48
16:00	0	1	1	4	6	17	18	6	3	0	0	0	0	0	56
17:00	3	1	2	8	10	14	14	4	0	0	0	0	0	0	56
18:00	1	0	0	5	3	10	9	0	1	0	0	0	0	0	29
19:00	2	0	2	5	5	11	4	2	0	0	0	0	0	0	31
20:00	0	0	0	3	4	4	1	0	0	0	0	0	0	0	12
21:00	0	0	0	1	5	2	4	1	0	0	0	0	0	0	13
22:00	0	0	0	1	0	1	5	0	1	0	0	0	0	0	8
23:00	0	0	0	0	0	2	0	1	0	0	0	0	0	0	3
Total	13	5	15	42	81	140	120	33	8	0	0	0	0	0	457

Tri-State Traffic Data, Inc.

Page 7

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 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
08/25/21	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	0	0	0	1	1	1	0	0	0	0	0	0	0	4
06:00	0	0	0	1	2	3	0	0	0	0	0	0	0	0	6
07:00	2	0	1	5	7	8	7	1	0	0	0	0	0	0	31
08:00	0	1	1	1	12	7	3	1	0	0	0	0	0	0	26
09:00	0	0	0	1	6	10	4	0	0	0	0	0	0	0	21
10:00	0	0	0	1	1	8	2	1	0	1	0	0	0	0	14
11:00	0	1	2	1	2	8	7	2	0	0	0	0	0	0	23
12 PM	0	0	2	0	2	6	7	2	0	0	0	0	0	0	19
13:00	0	0	1	2	5	3	9	3	0	0	0	0	0	0	23
14:00	2	0	1	1	4	9	10	5	1	0	0	0	0	0	33
15:00	0	0	3	1	7	7	13	7	1	0	0	0	0	0	39
16:00	2	1	1	7	10	20	13	9	1	0	0	0	0	0	64
17:00	0	0	3	0	6	21	10	2	0	0	0	0	0	0	42
18:00	0	1	2	3	6	10	9	6	0	0	0	0	0	0	37
19:00	0	2	2	1	7	6	4	1	0	1	0	0	0	0	24
20:00	0	1	0	0	1	12	3	1	2	0	0	0	0	0	20
21:00	0	0	1	0	2	2	2	0	0	0	0	0	0	0	7
22:00	0	0	0	0	2	4	0	0	0	0	0	0	0	0	6
23:00	0	0	0	1	0	1	1	0	0	0	0	0	0	0	3
Total	7	7	20	26	84	146	105	41	5	2	0	0	0	0	443

Tri-State Traffic Data, Inc.

Page 8

Street: Nixon Rd
Location: South of Sunday Dr
Weather: Clear
Counter: TSTD

www.TSTData.com
610-466-1469

Site Code: 3
Station ID: 3

Longitude: 0' 0.0000 Undefined
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 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
08/26/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
05:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
06:00	0	0	1	1	1	2	3	1	0	0	0	0	0	0	9
07:00	2	0	1	8	6	4	4	0	0	0	0	0	0	0	25
08:00	0	0	0	2	1	11	8	0	0	0	0	0	0	0	22
09:00	0	0	0	0	3	2	8	3	0	0	0	0	0	0	16
10:00	0	0	0	3	0	9	4	1	0	0	0	0	0	0	17
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	2	0	2	14	13	29	28	5	0	0	0	0	0	0	93
Grand Total	26	19	46	112	233	415	325	110	18	3	0	0	0	0	1307

15th Percentile : 29 MPH
50th Percentile : 37 MPH
85th Percentile : 43 MPH
95th Percentile : 47 MPH

Stats
Mean Speed(Average) : 37 MPH
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 740
Percent in Pace : 56.6%
Number of Vehicles > 55 MPH : 3
Percent of Vehicles > 55 MPH : 0.2%

Appendix B

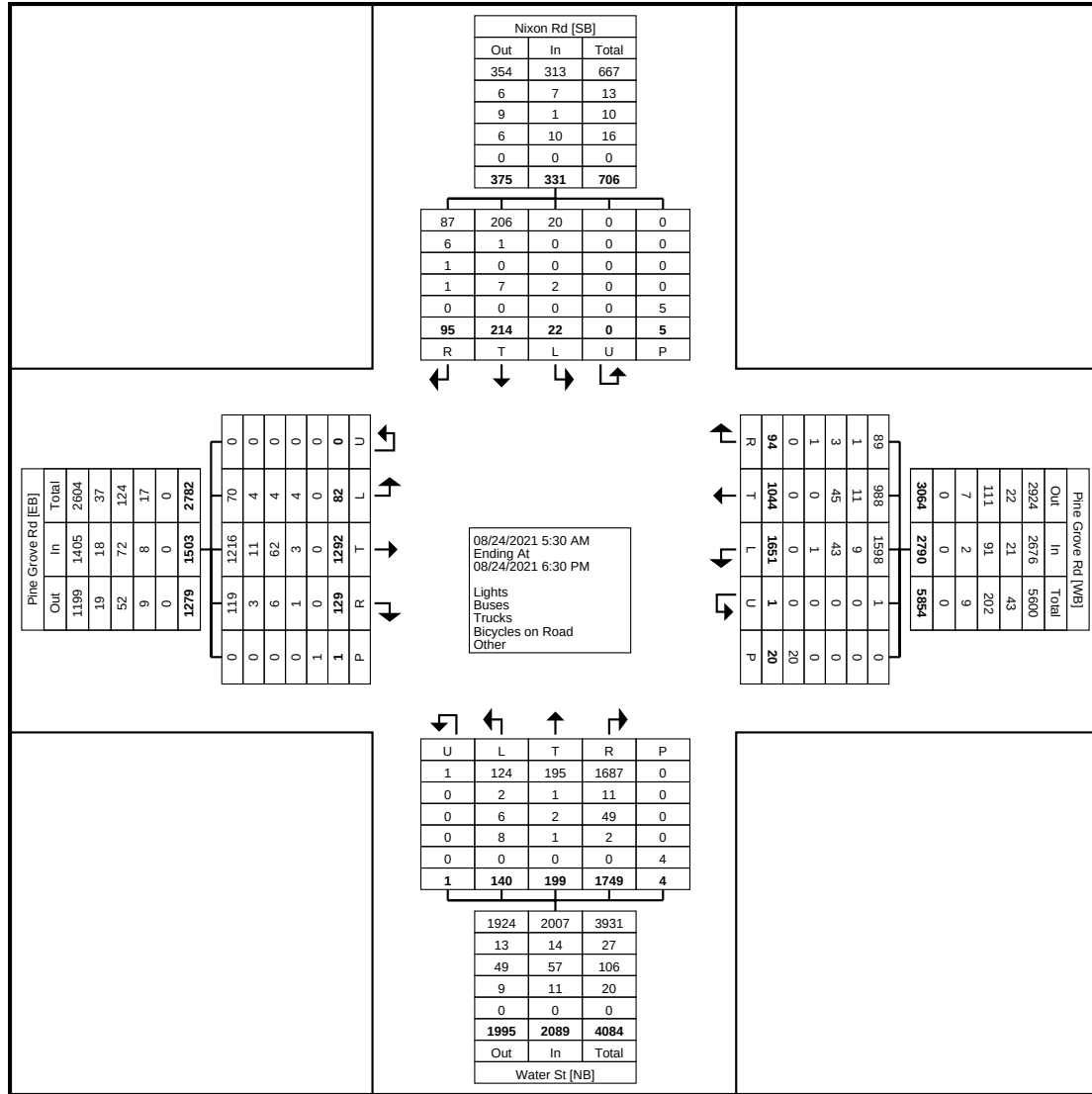
Intersection Turning Movement Count Data – Raw Data

Turning Movement Data

Start Time	Pine Grove Rd Eastbound						Pine Grove Rd Westbound						Water St Northbound						Nixon Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
5:30 AM	2	6	0	0	0	8	1	2	0	0	0	3	0	2	36	0	0	38	0	0	0	0	0	0	49
5:45 AM	0	18	1	0	0	19	3	1	0	0	0	4	0	2	30	0	0	32	1	1	1	0	0	3	58
Hourly Total	2	24	1	0	0	27	4	3	0	0	0	7	0	4	66	0	0	70	1	1	1	0	0	3	107
6:00 AM	1	15	0	0	0	16	7	5	0	0	0	12	2	2	27	0	0	31	1	0	0	0	0	1	60
6:15 AM	0	20	0	0	1	20	10	3	0	0	0	13	1	8	44	0	0	53	0	0	0	0	0	0	86
6:30 AM	1	28	1	0	0	30	12	6	0	0	0	18	1	10	75	0	1	86	0	3	0	0	0	3	137
6:45 AM	1	22	0	0	0	23	11	11	1	0	0	23	3	9	67	0	0	79	0	2	1	0	0	3	128
Hourly Total	3	85	1	0	1	89	40	25	1	0	0	66	7	29	213	0	1	249	1	5	1	0	0	7	411
7:00 AM	1	34	3	0	0	38	13	14	1	0	3	28	2	6	59	0	0	67	0	2	1	0	0	3	136
7:15 AM	0	32	2	0	0	34	11	22	1	0	0	34	3	7	80	0	0	90	0	7	0	0	0	7	165
7:30 AM	0	44	2	0	0	46	18	25	2	0	1	45	0	10	71	0	0	81	0	1	1	0	0	2	174
7:45 AM	2	40	1	0	0	43	15	27	1	0	0	43	4	10	70	0	0	84	0	3	9	0	0	12	182
Hourly Total	3	150	8	0	0	161	57	88	5	0	4	150	9	33	280	0	0	322	0	13	11	0	0	24	657
8:00 AM	1	55	6	0	0	62	20	15	1	0	0	36	3	6	57	0	0	66	1	2	0	0	0	3	167
8:15 AM	2	47	0	0	0	49	14	31	2	0	0	47	7	8	40	0	0	55	1	1	3	0	0	5	156
8:30 AM	3	30	2	0	0	35	28	18	1	0	0	47	0	6	46	0	0	52	0	4	0	0	0	4	138
8:45 AM	2	21	3	0	0	26	16	18	1	0	0	35	4	2	51	0	0	57	1	4	0	0	1	5	123
Hourly Total	8	153	11	0	0	172	78	82	5	0	0	165	14	22	194	0	0	230	3	11	3	0	1	17	584
9:00 AM	0	14	2	0	0	16	21	13	0	0	0	34	2	3	21	0	0	26	0	3	2	0	0	5	81
9:15 AM	3	31	2	0	0	36	19	27	0	0	0	46	1	1	30	0	0	32	0	1	2	0	0	3	117
9:30 AM	2	27	0	0	0	29	11	18	1	0	0	30	3	3	33	0	0	39	0	3	0	0	0	3	101
9:45 AM	3	30	0	0	0	33	13	19	1	0	0	33	0	3	37	1	0	41	0	1	2	0	0	3	110
Hourly Total	8	102	4	0	0	114	64	77	2	0	0	143	6	10	121	1	0	138	0	8	6	0	0	14	409
10:00 AM	1	22	1	0	0	24	17	11	4	0	1	32	2	4	34	0	0	40	0	2	1	0	1	3	99
10:15 AM	5	28	4	0	0	37	21	16	0	0	1	37	0	5	28	0	0	33	0	2	1	0	0	3	110
10:30 AM	1	22	5	0	0	28	20	10	2	0	0	32	0	2	31	0	0	33	0	4	1	0	0	5	98
10:45 AM	1	16	2	0	0	19	20	8	1	0	2	29	1	8	36	0	0	45	0	4	1	0	0	5	98
Hourly Total	8	88	12	0	0	108	78	45	7	0	4	130	3	19	129	0	0	151	0	12	4	0	1	16	405
11:00 AM	2	20	0	0	0	22	17	22	1	0	0	40	1	2	23	0	0	26	0	2	3	0	0	5	93
11:15 AM	2	21	3	0	0	26	27	15	4	0	3	46	1	1	28	0	0	30	0	3	4	0	0	7	109
11:30 AM	1	16	3	0	0	20	18	13	1	0	0	32	2	2	26	0	0	30	2	5	1	0	0	8	90
11:45 AM	1	21	2	0	0	24	22	13	4	0	0	39	1	1	22	0	0	24	0	4	3	0	0	7	94
Hourly Total	6	78	8	0	0	92	84	63	10	0	3	157	5	6	99	0	0	110	2	14	11	0	0	27	386
12:00 PM	2	24	6	0	0	32	24	11	3	0	0	38	1	2	18	0	0	21	0	1	1	0	0	2	93
12:15 PM	0	17	2	0	0	19	25	13	1	0	0	39	6	1	31	0	0	38	2	3	3	0	0	8	104
12:30 PM	3	30	2	0	0	35	41	17	2	0	0	60	1	2	20	0	1	23	1	2	2	0	0	5	123
12:45 PM	0	27	2	0	0	29	23	10	1	0	0	34	3	1	32	0	0	36	0	4	2	0	0	6	105
Hourly Total	5	98	12	0	0	115	113	51	7	0	0	171	11	6	101	0	1	118	3	10	8	0	0	21	425
1:00 PM	1	25	2	0	0	28	26	19	4	0	0	49	2	2	26	0	0	30	0	6	0	0	0	6	113
1:15 PM	2	15	1	0	0	18	30	16	1	0	0	47	2	4	30	0	0	36	1	4	3	0	0	8	109
1:30 PM	2	21	2	0	0	25	25	19	4	0	1	48	2	5	24	0	0	31	0	4	1	0	0	5	109
1:45 PM	4	23	1	0	0	28	39	14	4	0	0	57	0	1	30	0	0	31	0	4	0	0	0	4	120
Hourly Total	9	84	6	0	0	99	120	68	13	0	1	201	6	12	110	0	0	128	1	18	4	0	0	23	451
2:00 PM	0	18	2	0	0	20	32	24	2	0	0	58	1	2	24	0	0	27	1	4	0	0	0	5	110
2:15 PM	0	26	3	0	0	29	39	22	1	0	2	62	4	0	34	0	0	38	0	3	1	0	1	4	133
2:30 PM	2	18	5	0	0	25	32	31	4	0	0	67	5	2	23	0	0	30	0	8	4	0	0	12	134
2:45 PM	0	16	3	0	0	19	64	40	2	0	0	106	3	2	24	0	0	29	1	4	2	0	0	7	161
Hourly Total	2	78	13	0	0	93	167	117	9	0	2	293	13	6	105	0	0	124	2	19	7	0	1	28	538
3:00 PM	7	38	5	0	0	50	56	26	5	0	0	87	3	5	16	0	0	24	0	3	2	0	0	5	166
3:15 PM	6	37	3	0	0	46	60	38	2	1	0	101	4	3	22	0	0	29	0	4	1	0	0	5	181
3:30 PM	2	26	4	0	0	32	62	28	3	0	1	93	3	5	24	0	0	32	1	9	4	0	0	14	171
3:45 PM	0	30	4	0	0	34	60	33	4	0	2	97	3	6	20	0	0	29	2	9	7	0	1	18	178
Hourly Total	15	131	16	0	0	162	238	125	14	1	3	378	13	19	82	0	0	114	3	25	14	0	1	42	696
4:00 PM	1	14	2	0	0	17	64	24	0	0	0	88	2	2	29	0	0	33	0	10	3	0	0	13	151
4:15 PM	3	22	5	0	0	30	80	31	2	0	0	113	9	2	21	0	1	32	2	7	6	0	0	15	190
4:30 PM	2	32	4	0	0	38	60	32	2	0	0	94	4	4	26	0	0	34	2	6	2	0	1	10	176
4:45 PM	2	28	6	0	0	36	77	41	2	0	1	120	4	5	26	0	0	35	0	6	4	0	0	10	201
Hourly Total	8	96	17	0	0	121	281	128	6	0	1	415	19	13	102	0	1	134	4	29	15	0	1	48	718
5:00 PM	0	31	5	0	0	36	78	21	3	0	0	102	5	8	38	0	0	51	0	14	3	0	0	17	206

5:15 PM	1	20	4	0	0	25	84	40	4	0	0	128	6	3	25	0	0	34	0	14	2	0	0	16	203
5:30 PM	1	19	7	0	0	27	56	36	3	0	0	95	7	3	23	0	1	33	0	4	3	0	0	7	162
5:45 PM	1	21	1	0	0	23	31	27	1	0	0	59	8	1	15	0	0	24	1	8	1	0	0	10	116
Hourly Total	3	91	17	0	0	111	249	124	11	0	0	384	26	15	101	0	1	142	1	40	9	0	0	50	687
6:00 PM	0	13	1	0	0	14	43	16	2	0	0	61	6	3	26	0	0	35	1	3	0	0	0	4	114
6:15 PM	2	21	2	0	0	25	35	32	2	0	2	69	2	2	20	0	0	24	0	6	1	0	0	7	125
Grand Total	82	1292	129	0	1	1503	1651	1044	94	1	20	2790	140	199	1749	1	4	2089	22	214	95	0	5	331	6713
Approach %	5.5	86.0	8.6	0.0	-	-	59.2	37.4	3.4	0.0	-	-	6.7	9.5	83.7	0.0	-	-	6.6	64.7	28.7	0.0	-	-	-
Total %	1.2	19.2	1.9	0.0	-	22.4	24.6	15.6	1.4	0.0	-	41.6	2.1	3.0	26.1	0.0	-	31.1	0.3	3.2	1.4	0.0	-	4.9	-
Lights	70	1216	119	0	-	1405	1598	988	89	1	-	2676	124	195	1687	1	-	2007	20	206	87	0	-	313	6401
% Lights	85.4	94.1	92.2	-	-	93.5	96.8	94.6	94.7	100.0	-	95.9	88.6	98.0	96.5	100.0	-	96.1	90.9	96.3	91.6	-	-	94.6	95.4
Buses	4	11	3	0	-	18	9	11	1	0	-	21	2	1	11	0	-	14	0	1	6	0	-	7	60
% Buses	4.9	0.9	2.3	-	-	1.2	0.5	1.1	1.1	0.0	-	0.8	1.4	0.5	0.6	0.0	-	0.7	0.0	0.5	6.3	-	-	2.1	0.9
Trucks	4	62	6	0	-	72	43	45	3	0	-	91	6	2	49	0	-	57	0	0	1	0	-	1	221
% Trucks	4.9	4.8	4.7	-	-	4.8	2.6	4.3	3.2	0.0	-	3.3	4.3	1.0	2.8	0.0	-	2.7	0.0	0.0	1.1	-	-	0.3	3.3
Bicycles on Road	4	3	1	0	-	8	1	0	1	0	-	2	8	1	2	0	-	11	2	7	1	0	-	10	31
% Bicycles on Road	4.9	0.2	0.8	-	-	0.5	0.1	0.0	1.1	0.0	-	0.1	5.7	0.5	0.1	0.0	-	0.5	9.1	3.3	1.1	-	-	3.0	0.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	5.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	19	-	-	-	-	-	4	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	95.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Ferguson Twp, PA
Pine Grove Rd & Water St/Nixon
Rd
Tuesday, August 24, 2021
Location: 40.734007, -77.88565



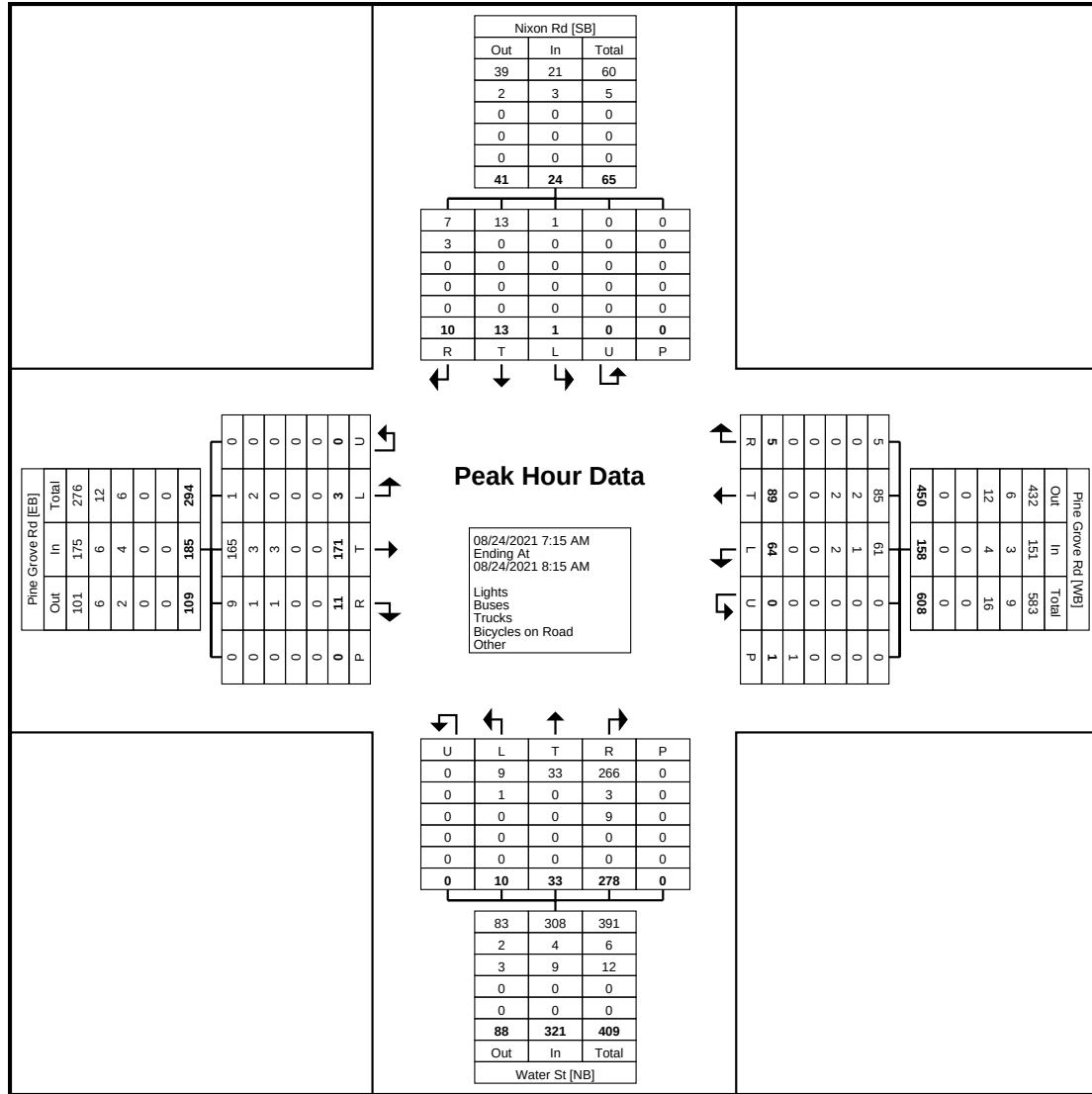
Turning Movement Data Plot



Coatesville, Pennsylvania, United States 19320
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Turning Movement Peak Hour Data (7:15 AM)

[illegible]



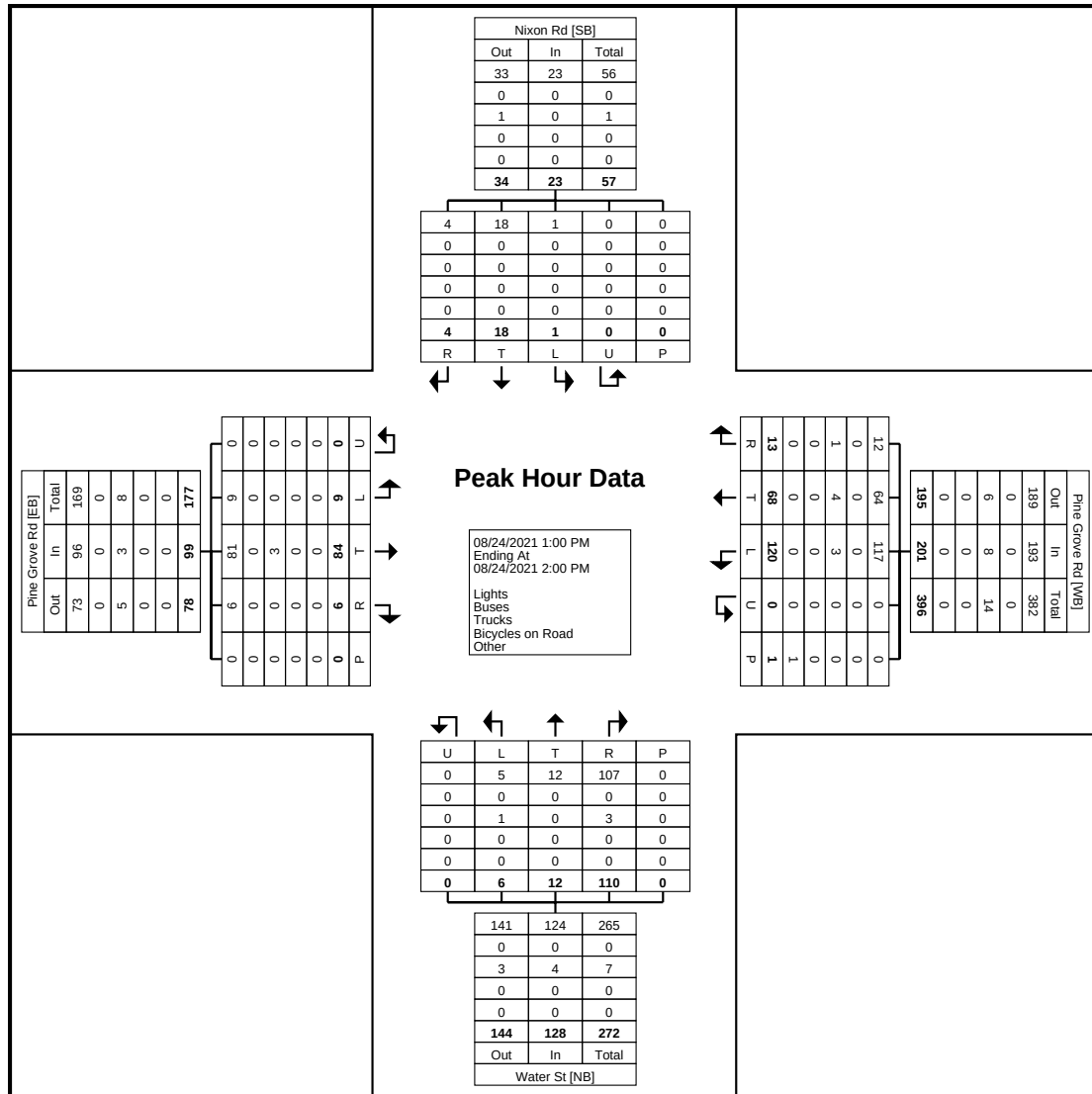
Turning Movement Peak Hour Data Plot (7:15 AM)



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Count Name: Pine Grove Road
& Water Street / Nixon Road
Site Code:
Start Date: 08/24/2021
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[illegible]



Turning Movement Peak Hour Data Plot (1:00 PM)

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Pine Grove Rd Eastbound						Pine Grove Rd Westbound						Water St Northbound						Nixon Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:30 PM	2	32	4	0	0	38	60	32	2	0	0	94	4	4	26	0	0	34	2	6	2	0	1	10	176
4:45 PM	2	28	6	0	0	36	77	41	2	0	1	120	4	5	26	0	0	35	0	6	4	0	0	10	201
5:00 PM	0	31	5	0	0	36	78	21	3	0	0	102	5	8	38	0	0	51	0	14	3	0	0	17	206
5:15 PM	1	20	4	0	0	25	84	40	4	0	0	128	6	3	25	0	0	34	0	14	2	0	0	16	203
Total	5	111	19	0	0	135	299	134	11	0	1	444	19	20	115	0	0	154	2	40	11	0	1	53	786
Approach %	3.7	82.2	14.1	0.0	-	-	67.3	30.2	2.5	0.0	-	-	12.3	13.0	74.7	0.0	-	-	3.8	75.5	20.8	0.0	-	-	-
Total %	0.6	14.1	2.4	0.0	-	17.2	38.0	17.0	1.4	0.0	-	56.5	2.4	2.5	14.6	0.0	-	19.6	0.3	5.1	1.4	0.0	-	6.7	-
PHF	0.625	0.867	0.792	0.000	-	0.888	0.890	0.817	0.688	0.000	-	0.867	0.792	0.625	0.757	0.000	-	0.755	0.250	0.714	0.688	0.000	-	0.779	0.954
Lights	5	106	19	0	-	130	295	132	11	0	-	438	18	19	114	0	-	151	2	34	10	0	-	46	765
% Lights	100.0	95.5	100.0	-	-	96.3	98.7	98.5	100.0	-	-	98.6	94.7	95.0	99.1	-	-	98.1	100.0	85.0	90.9	-	-	86.8	97.3
Buses	0	1	0	0	-	1	1	2	0	0	-	3	1	0	1	0	-	2	0	1	1	0	-	2	8
% Buses	0.0	0.9	0.0	-	-	0.7	0.3	1.5	0.0	-	-	0.7	5.3	0.0	0.9	-	-	1.3	0.0	2.5	9.1	-	-	3.8	1.0
Trucks	0	4	0	0	-	4	2	0	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	6
% Trucks	0.0	3.6	0.0	-	-	3.0	0.7	0.0	0.0	-	-	0.5	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.8
Bicycles on Road	0	0	0	0	-	0	1	0	0	0	-	1	0	1	0	0	-	1	0	5	0	0	-	5	7
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.3	0.0	0.0	-	-	0.2	0.0	5.0	0.0	-	-	0.6	0.0	12.5	0.0	-	-	9.4	0.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Pine Grove Road
& Water Street / Nixon Road
Site Code:
Start Date: 08/24/2021
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Appendix C

Development of Traffic Volume Data for Traffic Signal Warrant Analysis

Pine Grove Rd (SR 45) & S Water St (SR 26)/S Nixon Rd
15 Minute Interval Volumes for 24-Hour Period
Tuesday, August 24, 2021

Time		EB Pine Grove Road (SR 0045)			WB Pine Grove Road (SR 0026/45)			SB Nixon Road			NB Water Street (SR 0026)								Peds*
	INDEX	Appr. Count	COVID Adjust (PRGe)	Adj. Appr. Volume (COVID)	Appr. Count	COVID Adjust (PRGe)	Adj. Appr. Volume (COVID)	Appr. Count	COVID Adjust (PRGe)	Adj. Appr. Volume (COVID)	Appr. Count	RT Count	% RT Min Conflict	RT Vehicle Reduction	Adj. Appr. Volume (RT)	COVID Adjust (WS)	Adj. Appr. Volume (COVID)		
12:00 AM	1	0	-35.7%	0	3	-35.7%	2	1	-35.7%	1	0	0	-82.3%	0	0	+54.2%	0	--	
12:15 AM	1	4	-35.7%	3	4	-35.7%	3	0	-35.7%	0	0	0	-82.3%	0	0	+54.2%	0	--	
12:30 AM	1	0	-35.7%	0	0	-35.7%	0	0	-35.7%	0	2	2	-82.3%	-2	0	+54.2%	0	--	
12:45 AM	1	2	-35.7%	1	3	-35.7%	2	1	-35.7%	1	3	3	-82.3%	-2	1	+54.2%	2	--	
1:00 AM	2	0	-44.4%	0	9	-44.4%	5	0	-44.4%	0	0	0	-82.3%	0	0	-21.4%	0	--	
1:15 AM	2	0	-44.4%	0	7	-44.4%	4	0	-44.4%	0	1	1	-82.3%	-1	0	-21.4%	0	--	
1:30 AM	2	0	-44.4%	0	3	-44.4%	2	0	-44.4%	0	2	2	-82.3%	-2	0	-21.4%	0	--	
1:45 AM	2	1	-44.4%	1	3	-44.4%	2	0	-44.4%	0	1	1	-82.3%	-1	0	-21.4%	0	--	
2:00 AM	3	2	0.0%	2	0	0.0%	0	0	0.0%	0	3	3	-82.3%	-2	1	+33.3%	1	--	
2:15 AM	3	0	0.0%	1	0	0.0%	0	0	0.0%	0	0	0	-82.3%	0	0	+33.3%	0	--	
2:30 AM	3	1	0.0%	0	1	0.0%	1	0	0.0%	0	3	3	-82.3%	-2	1	+33.3%	1	--	
2:45 AM	3	1	0.0%	1	1	0.0%	1	0	0.0%	0	1	1	-82.3%	-1	0	+33.3%	0	--	
3:00 AM	4	0	+52.9%	0	2	+52.9%	3	0	+52.9%	0	0	0	-82.3%	0	0	+25.0%	0	--	
3:15 AM	4	1	+52.9%	2	5	+52.9%	8	0	+52.9%	0	0	0	-82.3%	0	0	+25.0%	0	--	
3:30 AM	4	1	+52.9%	2	0	+52.9%	0	0	+52.9%	0	7	6	-82.3%	-5	2	+25.0%	3	--	
3:45 AM	4	0	+52.9%	0	3	+52.9%	5	1	+52.9%	2	4	3	-82.3%	-2	2	+25.0%	3	--	
4:00 AM	5	0	+86.0%	0	3	+86.0%	6	0	+86.0%	0	3	3	-82.3%	-2	1	-1.9%	1	--	
4:15 AM	5	4	+86.0%	7	2	+86.0%	4	0	+86.0%	0	15	13	-82.3%	-11	4	-1.9%	4	--	
4:30 AM	5	2	+86.0%	4	0	+86.0%	0	0	+86.0%	0	8	7	-82.3%	-6	2	-1.9%	2	--	
4:45 AM	5	3	+86.0%	6	2	+86.0%	4	0	+86.0%	0	13	11	-82.3%	-9	4	-1.9%	4	--	
5:00 AM	6	4	+79.5%	7	7	+79.5%	13	1	+79.5%	2	17	15	-82.3%	-12	5	+10.1%	6	--	
5:15 AM	6	7	+79.5%	13	6	+79.5%	11	1	+79.5%	2	29	25	-82.3%	-21	8	+10.1%	9	--	
5:30 AM	6	8	+79.5%	14	3	+79.5%	5	0	+79.5%	0	38	36	-82.3%	-30	8	+10.1%	9	0	
5:45 AM	6	19	+79.5%	34	4	+79.5%	7	3	+79.5%	5	32	30	-82.3%	-25	7	+10.1%	8	0	
6:00 AM	7	16	+49.2%	24	12	+49.2%	18	1	+49.2%	1	31	27	-82.3%	-22	9	+16.9%	11	0	
6:15 AM	7	20	+49.2%	30	13	+49.2%	19	0	+49.2%	0	53	44	-82.3%	-36	17	+16.9%	20	1	
6:30 AM	7	30	+49.2%	45	18	+49.2%	27	3	+49.2%	4	86	75	-82.3%	-62	24	+16.9%	28	0	
6:45 AM	7	23	+49.2%	34	23	+49.2%	34	3	+49.2%	4	79	67	-82.3%	-55	24	+16.9%	28	0	
7:00 AM	8	38	+5.4%	40	28	+5.4%	30	3	+5.4%	3	67	59	-82.3%	-49	18	+20.1%	22	3	
7:15 AM	8	34	+5.4%	36	34	+5.4%	36	7	+5.4%	7	90	80	-82.3%	-66	24	+20.1%	29	0	
7:30 AM	8	46	+5.4%	48	45	+5.4%	47	2	+5.4%	2	81	71	-82.3%	-58	23	+20.1%	28	1	
7:45 AM	8	43	+5.4%	45	43	+5.4%	45	12	+5.4%	13	84	70	-82.3%	-58	26	+20.1%	31	0	
8:00 AM	9	62	-14.1%	53	36	-14.1%	31	3	-14.1%	3	66	57	-82.3%	-47	19	-1.7%	19	0	
8:15 AM	9	49	-14.1%	42	47	-14.1%	40	5	-14.1%	4	55	40	-82.3%	-33	22	-1.7%	22	0	
8:30 AM	9	35	-14.1%	30	47	-14.1%	40	4	-14.1%	3	52	46	-82.3%	-38	14	-1.7%	14	0	
8:45 AM	9	26	-14.1%	22	35	-14.1%	30	5	-14.1%	4	57	51	-82.3%	-42	15	-1.7%	15	0	
9:00 AM	10	16	-6.7%	15	34	-6.7%	32	5	-6.7%	5	26	21	-82.3%	-17	9	+11.4%	10	0	
9:15 AM	10	36	-6.7%	34	46	-6.7%	43	3	-6.7%	3	32	30	-82.3%	-25	7	+11.4%	8	0	
9:30 AM	10	29	-6.7%	27	30	-6.7%	28	3	-6.7%	3	39	33	-82.3%	-27	12	+11.4%	13	0	
9:45 AM	10	33	-6.7%	31	33	-6.7%	31	3	-6.7%	3	41	37	-82.3%	-30	11	+11.4%	12	0	
10:00 AM	11	24	-10.8%	21	32	-10.8%	29	3	-10.8%	3	40	34	-82.3%	-28	12	+7.8%	13	1	
10:15 AM	11	37	-10.8%	33	37	-10.8%	33	3	-10.8%	3	33	28	-82.3%	-23	10	+7.8%	11	1	
10:30 AM	11	28	-10.8%	25	32	-10.8%	29	5	-10.8%	4	33	31	-82.3%	-26	7	+7.8%	8	0	
10:45 AM	11	19	-10.8%	17	29	-10.8%	26	5	-10.8%	4	45	36	-82.3%	-30	15	+7.8%	16	2	
11:00 AM	12	22	+11.7%	25	40	+11.7%	45	5	+11.7%	6	26	23	-82.3%	-19	7	+10.2%	8	0	
11:15 AM	12	26	+11.7%	29	46	+11.7%	51	7	+11.7%	8	30	28	-82.3%	-23	7	+10.2%	8	3	
11:30 AM	12	20	+11.7%	22	32	+11.7%	36	8	+11.7%	9	30	26	-82.3%	-21	9	+10.2%	10	0	
11:45 AM	12	24	+11.7%	27	39	+11.7%	44	7	+11.7%	8	24	22	-82.3%	-18	6	+10.2%	7	0	
12:00 PM	13	32	-3.8%	31	38	-3.8%	37	2	-3.8%	2	21	18	-76.3%	-14	7	+2.2%	7	0	
12:15 PM	13	19	-3.8%	18	39	-3.8%	38	8	-3.8%	8	38	31	-76.3%	-24	14	+2.2%	14	0	
12:30 PM	13	35	-3.8%	34	60	-3.8%	58	5	-3.8%	5	23	20	-76.3%	-15	8	+2.2%	8	0	
12:45 PM	13	29	-3.8%	28	34	-3.8%	33	6	-3.8%	6	36	32	-76.3%	-24	12	+2.2%	12	0	
1:00 PM	14	28	-4.4%	27	49	-4.4%	47	6	-4.4%	6	30	26	-76.3%	-20	10	+7.6%	11	0	
1:15 PM	14	18	-4.4%	17	47	-4.4%	45	8	-4.4%	8	36	30	-76.3%	-23	13	+7.6%	14	0	
1:30 PM	14	25	-4.4%	24	48	-4.4%	46	5	-4.4%	5	31	24	-76.3%	-18	13	+7.6%	14	1	
1:45 PM	14	28	-4.4%	27	57	-4.4%	54	4	-4.4%	4	31	30	-76.3%	-23	8	+7.6%	9	0	
2:00 PM	15	20	+14.5%	23	58	+14.5%	66	5	+14.5%	6	27	24	-76.3%	-18	9	-1.9%	9	0	
2:15 PM	15	29	+14.5%	33	62	+14.5%	71	4	+14.5%	5	38	34	-76.3%	-26	12	-1.9%	12	2	
2:30 PM	15	25	+14.5%	29	67	+14.5%	77	12	+14.5%	14	30	23	-76.3%	-18	12	-1.9%	12	0	
2:45 PM	15	19	+14.5%	22	106	+14.5%	121	7	+14.5%	8	29	24	-76.3%	-18	11	-1.9%	11	0	
3:00 PM	16	50	+29.4%	65	87	+29.4%	113	5	+29.4%	6	24	16	-76.3%	-12	12	+9.7%	13	0	
3:15 PM	16	46	+29.4%	60	101	+29.4%	131	5	+29.4%	6	29	22	-76.3%	-17	12	+9.7%	13	0	
3:30 PM	16	32	+29.4%	41	93	+29.4%	120	14	+29.4%	18	32	24	-76.3%	-18	14	+9.7%	15	1	
3:45 PM	16	34	+29.4%	44	97	+29.4%	125	18	+29.4%	23	29	20	-76.3%	-15	14	+9.7%	15	2	
4:00 PM	17	17	+15.5%	20	88	+15.5%	102	13	+15.5%	15	33	29	-76.3%	-22	11	+19.5%	13	0	
4:15 PM	17	30	+15.5%	35	113	+15.5%	130	15	+15.5%	17	32	21	-76.3%	-16	16	+19.5%	19	0	
4:30 PM	17	38	+15.5%	44	94	+15.5%	109	10	+15.5%	12	34	26	-76.3%	-20	14	+19.5%	17	0	
4:45 PM	17	36	+15.5%	42	120	+15.5%	139	10	+15.5%	12	35	26	-76.3%	-20	15	+19.5%	18	1	
5:00 PM	18	36	-19.5%	29	102	-19.5%	82	17	-19.5%	14	51	38	-76.3%	-29	22	+22.1%	27	0	
5:15 PM	18	25	-19.5%	20	128	-19.5%	103	16	-19.5%	13	34	25	-76.3%	-19	15	+22.1%	18	0	
5:30 PM	18	27	-19.5%	22	95	-19.5%	76	7	-19.5%	6	33	23	-76.3%	-18	15	+22.1%	18	0	
5:45 PM	18	23	-19.5%	19	59	-19.5%	47	10	-19.5%	8	24	15	-76.3%	-11	13	+22.1%	16	0	
6:00 PM	19	14	-10.4%	13	61	-10.4%	55	4	-10.4%	4	35	26	-76.3%	-20	15	+19.5%	18	0	
6:15 PM	19	25	-10.4%	22	69	-10.4%	62	7	-10.4%	6	24	20	-76.3%	-15	9	+19.5%	11	2	
6:30 PM	19	8	-10.4%	7	64	-10.4%	57	8	-10.4%	7	15	11	-76.3%	-8	7	+19.5%	8	--	
6:45 PM	19	17	-10.4%	15	49	-10.4%	44	4	-10.4%	4	15	11	-76.3%	-8	7	+19.5%	8	--	
7:00 PM	20	7	-6.6%	7	63	-6.6%	59	6	-6.6%	6	13	10	-76.3%	-8	5	+27.4%	6	--	
7:15 PM	20	12	-6.6%	11	58	-6.6%	54	9	-6.6%	8	19	14	-76.3%	-11	8	+27.4%	10	--	
7:30 PM	20	9	-6.6%	8	41	-6.6%	38	10	-6.6%	9	7	5	-76.3%	-4	3	+27.4%	4	--	
7:45 PM	20	11	-6.6%	10	49	-6.6%	46	6	-6.6%	6	14	10	-76.3%	-8	6	+27.4%	8	--	
8:00 PM	21	3	-33.6%	2	59	-33.6%	39	5	-33.6%	3	13	10	-76.3%	-8	5	+5.9%	5	--	
8:15 PM	21	7	-33.6%	5	55	-33.6%	37	3	-33.6%	2	16	12	-76.3%	-9	7	+5.9%	7	--	
8:30 PM	21	11	-33.6%	7	30	-33.6%	20	2	-33.6%	1	12	9	-76.3%	-7	5	+5.9%	5	--	
8:45 PM	21	4																	

Appendix D

Traffic Signal Warrant Analysis (PennDOT Workbook)

STUDY AND ANALYSIS INFORMATION

Municipality: Ferguson Township
 County: Centre County
 PennDOT Engineering District: 2

Analysis Date: 9/30/2021
 Conducted By: T. Long
 Agency/Company Name: MT

Analysis Information

Data Collection Date: 8/24/2021
 Day of the Week: Tuesday

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

Major Street Information

Major Street Name and Route Number: Pine Grove Rd (SR 45)
 Major Street Approach #1 Direction: E-Bound
 Major Street Approach #2 Direction: W-Bound

Number of Lanes for Moving Traffic on Each Major Street Approach: 1 LANE(S)
 Speed Limit or 85th Percentile Speed on the Major Street: 25 MPH

Minor Street Information

Minor Street Name and Route Number: S Nixon St/S Water St
 Minor Street Approach #1 Direction: S-Bound
 Minor Street Approach #2 Direction: N-Bound

Number of Lanes for Moving Traffic on Each Minor Street Approach: 1 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	Yes	No
Warrant 5, School Crossing	No	N/A
Warrant 6, Coordinated Signal System	No	N/A
Warrant 7, Crash Experience	Yes	No
Warrant 8, Roadway Network	No	N/A
Warrant 9, Intersection Near a Grade Crossing	No	N/A
Warrant PA-1, ADT Volume Warrant	No	N/A
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 (E-Bound)	Major Street Approach #2 (W-Bound)	Major Street Combined	Minor Street Approach #1 (S-Bound)	Minor Street Approach #2 (N-Bound)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 AM	12:14 AM	0	2	2	1	0
12:15 AM	12:29 AM	3	3	6	0	0
12:30 AM	12:44 AM	0	0	0	0	0
12:45 AM	12:59 AM	1	2	3	1	2
1:00 AM	1:14 AM	0	5	5	0	0
1:15 AM	1:29 AM	0	4	4	0	0
1:30 AM	1:44 AM	0	2	2	0	0
1:45 AM	1:59 AM	1	2	3	0	0
2:00 AM	2:14 AM	2	0	2	0	1
2:15 AM	2:29 AM	1	0	1	0	0
2:30 AM	2:44 AM	0	1	1	0	1
2:45 AM	2:59 AM	1	1	2	0	0
3:00 AM	3:14 AM	0	3	3	0	0
3:15 AM	3:29 AM	2	8	10	0	0
3:30 AM	3:44 AM	2	0	2	0	3
3:45 AM	3:59 AM	0	5	5	2	3
4:00 AM	4:14 AM	0	6	6	0	1
4:15 AM	4:29 AM	7	4	11	0	4
4:30 AM	4:44 AM	4	0	4	0	2
4:45 AM	4:59 AM	6	4	10	0	4
5:00 AM	5:14 AM	7	13	20	2	6
5:15 AM	5:29 AM	13	11	24	2	9
5:30 AM	5:44 AM	14	5	19	0	9
5:45 AM	5:59 AM	34	7	41	5	8
6:00 AM	6:14 AM	24	18	42	1	11
6:15 AM	6:29 AM	30	19	49	0	20
6:30 AM	6:44 AM	45	27	72	4	28
6:45 AM	6:59 AM	34	34	68	4	28
7:00 AM	7:14 AM	40	30	70	3	22
7:15 AM	7:29 AM	36	36	72	7	29
7:30 AM	7:44 AM	48	47	95	2	28
7:45 AM	7:59 AM	45	45	90	13	31
8:00 AM	8:14 AM	53	31	84	3	19
8:15 AM	8:29 AM	42	40	82	4	22
8:30 AM	8:44 AM	30	40	70	3	14
8:45 AM	8:59 AM	22	30	52	4	15
9:00 AM	9:14 AM	15	32	47	5	10
9:15 AM	9:29 AM	34	43	77	3	8
9:30 AM	9:44 AM	27	28	55	3	13
9:45 AM	9:59 AM	31	31	62	3	12
10:00 AM	10:14 AM	21	29	50	3	13
10:15 AM	10:29 AM	33	33	66	3	11
10:30 AM	10:44 AM	25	29	54	4	8
10:45 AM	10:59 AM	17	26	43	4	16
11:00 AM	11:14 AM	25	45	70	6	8
11:15 AM	11:29 AM	29	51	80	8	8
11:30 AM	11:44 AM	22	36	58	9	10
11:45 AM	11:59 AM	27	44	71	8	7

Traffic Signal Warrant Analysis Workbook

11/23/2021

ENTER VOLUME DATA PER 15 MINUTE INTERVAL, PER APPROACH						
Time Interval		Major Street Approach #1 (E-Bound)	Major Street Approach #2 (W-Bound)	Major Street Combined	Minor Street Approach #1 (S-Bound)	Minor Street Approach #2 (N-Bound)
Begin At	End Of	Volume	Volume	Total Volume	Volume	Volume
12:00 PM	12:14 PM	31	37	68	2	7
12:15 PM	12:29 PM	18	38	56	8	14
12:30 PM	12:44 PM	34	58	92	5	8
12:45 PM	12:59 PM	28	33	61	6	12
1:00 PM	1:14 PM	27	47	74	6	11
1:15 PM	1:29 PM	17	45	62	8	14
1:30 PM	1:44 PM	24	46	70	5	14
1:45 PM	1:59 PM	27	54	81	4	9
2:00 PM	2:14 PM	23	66	89	6	9
2:15 PM	2:29 PM	33	71	104	5	12
2:30 PM	2:44 PM	29	77	106	14	12
2:45 PM	2:59 PM	22	121	143	8	11
3:00 PM	3:14 PM	65	113	178	6	13
3:15 PM	3:29 PM	60	131	191	6	13
3:30 PM	3:44 PM	41	120	161	18	15
3:45 PM	3:59 PM	44	125	169	23	15
4:00 PM	4:14 PM	20	102	122	15	13
4:15 PM	4:29 PM	35	130	165	17	19
4:30 PM	4:44 PM	44	109	153	12	17
4:45 PM	4:59 PM	42	139	181	12	18
5:00 PM	5:14 PM	29	82	111	14	27
5:15 PM	5:29 PM	20	103	123	13	18
5:30 PM	5:44 PM	22	76	98	6	18
5:45 PM	5:59 PM	19	47	66	8	16
6:00 PM	6:14 PM	13	55	68	4	18
6:15 PM	6:29 PM	22	62	84	6	11
6:30 PM	6:44 PM	7	57	64	7	8
6:45 PM	6:59 PM	15	44	59	4	8
7:00 PM	7:14 PM	7	59	66	6	6
7:15 PM	7:29 PM	11	54	65	8	10
7:30 PM	7:44 PM	8	38	46	9	4
7:45 PM	7:59 PM	10	46	56	6	8
8:00 PM	8:14 PM	2	39	41	3	5
8:15 PM	8:29 PM	5	37	42	2	7
8:30 PM	8:44 PM	7	20	27	1	5
8:45 PM	8:59 PM	3	21	24	1	3
9:00 PM	9:14 PM	4	16	20	4	2
9:15 PM	9:29 PM	1	21	22	4	6
9:30 PM	9:44 PM	5	34	39	2	3
9:45 PM	9:59 PM	3	30	33	2	3
10:00 PM	10:14 PM	1	21	22	3	2
10:15 PM	10:29 PM	1	20	21	1	5
10:30 PM	10:44 PM	1	12	13	1	2
10:45 PM	10:59 PM	1	9	10	1	1
11:00 PM	11:14 PM	0	6	6	1	4
11:15 PM	11:29 PM	0	4	4	0	1
11:30 PM	11:44 PM	0	4	4	0	1
11:45 PM	11:59 PM	0	4	4	0	1
Approach Totals:		1734	3595	5329	423	903

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?	Yes
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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: 0

Condition A Satisfied? No

Condition B Evaluation

Number of Unique Hours Met: 2

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		Total Number of Unique Hours Met On Figure 4C-2
Major Street:	1 Lane	0
Minor Street:	1 Lane	

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	Yes
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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	11	2	
12:15 AM	14	2	
12:30 AM	12	2	
12:45 AM	14	2	
1:00 AM	14	0	
1:15 AM	11	1	
1:30 AM	8	1	
1:45 AM	7	2	
2:00 AM	6	2	
2:15 AM	7	1	
2:30 AM	16	1	
2:45 AM	17	3	
3:00 AM	20	6	
3:15 AM	23	7	
3:30 AM	24	11	
3:45 AM	26	10	
4:00 AM	31	11	
4:15 AM	45	16	
4:30 AM	58	21	
4:45 AM	73	28	
5:00 AM	104	32	
5:15 AM	126	37	
5:30 AM	151	48	
5:45 AM	204	67	
6:00 AM	231	87	
6:15 AM	259	98	
6:30 AM	282	107	
6:45 AM	305	107	
7:00 AM	327	110	
7:15 AM	341	107	
7:30 AM	351	100	
7:45 AM	326	86	
8:00 AM	288	70	
8:15 AM	251	61	
8:30 AM	246	47	
8:45 AM	231	46	
9:00 AM	241	43	
9:15 AM	244	46	
9:30 AM	233	49	
9:45 AM	232	44	
10:00 AM	213	48	
10:15 AM	233	43	
10:30 AM	247	40	
10:45 AM	251	42	
11:00 AM	279	33	
11:15 AM	277	32	
11:30 AM	253	38	
11:45 AM	287	36	

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	277	41	
12:15 PM	283	45	
12:30 PM	289	45	
12:45 PM	267	51	
1:00 PM	287	48	
1:15 PM	302	46	
1:30 PM	344	44	
1:45 PM	380	42	
2:00 PM	442	44	
2:15 PM	531	48	
2:30 PM	618	49	
2:45 PM	673	52	
3:00 PM	699	56	
3:15 PM	643	62	
3:30 PM	617	73	
3:45 PM	609	67	
4:00 PM	621	67	
4:15 PM	610	81	
4:30 PM	568	80	
4:45 PM	513	81	
5:00 PM	398	79	
5:15 PM	355	70	
5:30 PM	316	63	
5:45 PM	282	53	
6:00 PM	275	45	
6:15 PM	273	33	
6:30 PM	254	32	
6:45 PM	236	28	
7:00 PM	233	29	
7:15 PM	208	27	
7:30 PM	185	24	
7:45 PM	166	25	
8:00 PM	134	20	
8:15 PM	113	17	
8:30 PM	93	16	
8:45 PM	105	14	
9:00 PM	114	14	
9:15 PM	116	14	
9:30 PM	115	13	
9:45 PM	89	12	
10:00 PM	66	10	
10:15 PM	50	12	
10:30 PM	33	8	
10:45 PM	24	7	
11:00 PM	18	7	

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?	Yes
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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?

Yes

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?	N/A
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?	Yes
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?	No
<i>*If applicable, attach all supporting calculations and documentation.</i>	

Total Number of Unique Hours Met On Figure 4C-4
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	11	2	
12:15 AM	14	2	
12:30 AM	12	2	
12:45 AM	14	2	
1:00 AM	14	0	
1:15 AM	11	1	
1:30 AM	8	1	
1:45 AM	7	2	
2:00 AM	6	2	
2:15 AM	7	1	
2:30 AM	16	1	
2:45 AM	17	3	
3:00 AM	20	6	
3:15 AM	23	7	
3:30 AM	24	11	
3:45 AM	26	10	
4:00 AM	31	11	
4:15 AM	45	16	
4:30 AM	58	21	
4:45 AM	73	28	
5:00 AM	104	32	
5:15 AM	126	37	
5:30 AM	151	48	
5:45 AM	204	67	
6:00 AM	231	87	
6:15 AM	259	98	
6:30 AM	282	107	
6:45 AM	305	107	
7:00 AM	327	110	
7:15 AM	341	107	
7:30 AM	351	100	
7:45 AM	326	86	
8:00 AM	288	70	
8:15 AM	251	61	

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	246	47	
8:45 AM	231	46	
9:00 AM	241	43	
9:15 AM	244	46	
9:30 AM	233	49	
9:45 AM	232	44	
10:00 AM	213	48	
10:15 AM	233	43	
10:30 AM	247	40	
10:45 AM	251	42	
11:00 AM	279	33	
11:15 AM	277	32	
11:30 AM	253	38	
11:45 AM	287	36	
12:00 PM	277	41	
12:15 PM	283	45	
12:30 PM	289	45	
12:45 PM	267	51	
1:00 PM	287	48	
1:15 PM	302	46	
1:30 PM	344	44	
1:45 PM	380	42	
2:00 PM	442	44	
2:15 PM	531	48	
2:30 PM	618	49	
2:45 PM	673	52	
3:00 PM	699	56	
3:15 PM	643	62	
3:30 PM	617	73	
3:45 PM	609	67	
4:00 PM	621	67	
4:15 PM	610	81	
4:30 PM	568	80	
4:45 PM	513	81	
5:00 PM	398	79	
5:15 PM	355	70	
5:30 PM	316	63	
5:45 PM	282	53	
6:00 PM	275	45	
6:15 PM	273	33	
6:30 PM	254	32	
6:45 PM	236	28	
7:00 PM	233	29	
7:15 PM	208	27	
7:30 PM	185	24	
7:45 PM	166	25	
8:00 PM	134	20	
8:15 PM	113	17	
8:30 PM	93	16	
8:45 PM	105	14	
9:00 PM	114	14	
9:15 PM	116	14	
9:30 PM	115	13	
9:45 PM	89	12	
10:00 PM	66	10	
10:15 PM	50	12	
10:30 PM	33	8	
10:45 PM	24	7	
11:00 PM	18	7	

MUTCD WARRANT 4, PEDESTRIAN VOLUME

Built-up Isolated Community With Less Than 10,000 Population or Above 35 MPH on Major Street? Yes

15th Percentile Pedestrian Crossing Speed Less than 3.5 f/s?* No
**If applicable, attach all supporting calculations, documentation, and findings.*

Is the distance to the nearest traffic control signal or STOP sign controlling the major street that pedestrians desire to cross less than 300 feet? No

If the distance to the nearest traffic control signal or STOP sign controlling the major street that pedestrians desire to cross is less than 300 feet, will the proposed traffic control signal restrict the progressive movement of traffic?* N/A
**If applicable, attach supporting justification.*

Total Number of Unique Hours Met for Criterion A: 0

Total Number of Unique Hours Met for Criterion B: 0

Hourly Vehicular & Pedestrian Volume				
Hour Interval	Major Street Combined	Total of All Pedestrians Crossing Major Street	Criterion A: 4-Hour	Criterion B: 1-Hour
Beginning At	Vehicles Per Hour (VPH)	Pedestrians Per Hour (PPH)	Hour Met on Figure 4C-6?	Hour Met on Figure 4C-8?
12:00 AM	11			
12:15 AM	14			
12:30 AM	12			
12:45 AM	14			
1:00 AM	14			
1:15 AM	11			
1:30 AM	8			
1:45 AM	7			
2:00 AM	6			
2:15 AM	7			
2:30 AM	16			
2:45 AM	17			
3:00 AM	20			
3:15 AM	23			
3:30 AM	24			
3:45 AM	26			
4:00 AM	31			
4:15 AM	45			
4:30 AM	58			
4:45 AM	73			
5:00 AM	104			
5:15 AM	126			
5:30 AM	151	0		
5:45 AM	204	0		
6:00 AM	231	0		
6:15 AM	259	1		
6:30 AM	282	0		
6:45 AM	305	0		
7:00 AM	327	3		
7:15 AM	341	0		
7:30 AM	351	1		
7:45 AM	326	0		
8:00 AM	288	0		
8:15 AM	251	0		
8:30 AM	246	0		
8:45 AM	231	0		
9:00 AM	241	0		
9:15 AM	244	0		
9:30 AM	233	0		
9:45 AM	232	0		

Hourly Vehicular & Pedestrian Volume				
Hour Interval	Major Street Combined	Total of All Pedestrians Crossing Major Street	Criterion A: 4-Hour	Criterion B: 1-Hour
Beginning At	Vehicles Per Hour (VPH)	Pedestrians Per Hour (PPH)	Hour Met on Figure 4C-6?	Hour Met on Figure 4C-8?
10:00 AM	213	1		
10:15 AM	233	1		
10:30 AM	247	0		
10:45 AM	251	2		
11:00 AM	279	0		
11:15 AM	277	3		
11:30 AM	253	0		
11:45 AM	287	0		
12:00 PM	277	0		
12:15 PM	283	0		
12:30 PM	289	0		
12:45 PM	267	0		
1:00 PM	287	0		
1:15 PM	302	0		
1:30 PM	344	1		
1:45 PM	380	0		
2:00 PM	442	0		
2:15 PM	531	2		
2:30 PM	618	0		
2:45 PM	673	0		
3:00 PM	699	0		
3:15 PM	643	0		
3:30 PM	617	1		
3:45 PM	609	2		
4:00 PM	621	0		
4:15 PM	610	0		
4:30 PM	568	0		
4:45 PM	513	1		
5:00 PM	398	0		
5:15 PM	355	0		
5:30 PM	316	0		
5:45 PM	282	0		
6:00 PM	275	0		
6:15 PM	273	2		
6:30 PM	254			
6:45 PM	236			
7:00 PM	233			
7:15 PM	208			
7:30 PM	185			
7:45 PM	166			
8:00 PM	134			
8:15 PM	113			
8:30 PM	93			
8:45 PM	105			
9:00 PM	114			
9:15 PM	116			
9:30 PM	115			
9:45 PM	89			
10:00 PM	66			
10:15 PM	50			
10:30 PM	33			
10:45 PM	24			
11:00 PM	18			

MUTCD WARRANT 7, CRASH EXPERIENCE

Built-up Isolated Community With Less Than 10,000
Population or Above 40 MPH on Major Street?

Yes

Number of Lanes for Moving Traffic on Each
Approach

Major Street: 1 Lane

Minor Street: 1 Lane

Has adequate trial of alternatives with satisfactory observance and enforcement failed to reduce the crash frequency?

No

Five or more reportable and/or non-reportable crashes, of types susceptible to correction by a traffic control signal, have
occurred within a 12-month period during the most recent 3 years of available crash data.*

No

**If applicable, attach a summary of the crash data analysis used for this criterion.*

For each of any 8 hours of an average day, the vehicles per hour given in both the 80% columns of Condition A in Table 4C-1
exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection.

No

For each of any 8 hours of an average day, the vehicles per hour given in both the 80% columns of Condition B in Table 4C-1
exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection.

No

The volume of pedestrian traffic is not less than 80% of the requirements
specified in Warrant 4, the Pedestrian Volume warrant.*

No

**If applicable, attach all supporting calculations and documentation.*

MUTCD WARRANT 8, ROADWAY NETWORK*

Is the major street classified as an Urban Extension, Principal Arterial, or Minor Arterial that is a reasonable connection between two
Principal Arterials and/or Urban Extensions as shown on the official Functional Classification Map?

No

Does the intersection have a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical
weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1,2, and 3 during an average
weekday?

No

Does the intersection have a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any
5 hours of a non-normal business day (Saturday or Sunday)?

No

Is the major street part of the street or highway system that serves as the principal roadway network for through traffic flow?

No

Does the major street include rural or suburban highways outside, entering, or traversing a city?

No

Does the major street appear as a major route on an official plan, such as a major street plan
in an urban area traffic and transportation study?

No

**Refer to Section 4.3 of PennDOT Publication 46 (Traffic Engineering Manual) for additional Department documentation requirements to justify the installation of a signal
under Warrant 8. Attach all supplementary documentation and calculations, especially those relating to traffic volume projections and subsequent Warrant analyses.*