

## Appendix C. TMC Data and Speed/Volume Data

# TURNING MOVEMENT COUNTS

## Weekday Traffic Data Collection

### *Locations:*

4<sup>th</sup> Street and Butternut Street, NW  
Blair Road and Butternut Street, NW  
4<sup>th</sup> Street and Aspen Street, NW  
Blair Road and Whittier Street, NW  
4<sup>th</sup> Street and Van Buren Street, NW  
3<sup>rd</sup> Street and Van Buren Street, NW

### *Prepared By:*



SAMMAT ENGINEERING SERVICES, LLC  
P.O. BOX 780  
MOUNT AIRY, MD 21771  
[www.sammateng.com](http://www.sammateng.com)

September 25<sup>th</sup>, 2021

## INTRODUCTION

SAMMAT Engineering Services, LLC presents this report to provide vehicular turning movement counts obtained on September 7<sup>th</sup>, 2021 at the following locations in the District of Columbia (DC):

- Location 1: 4<sup>th</sup> Street and Butternut Street, NW
- Location 2: Blair Road and Butternut Street, NW
- Location 3: 4<sup>th</sup> Street and Aspen Street, NW
- Location 4: Blair Road and Whittier Street, NW
- Location 5: 4<sup>th</sup> Street and Van Buren Street, NW
- Location 6: 3<sup>rd</sup> Street and Van Buren Street, NW

The data collection locations and the surrounding roadway network are presented in Figures 1 and 2.

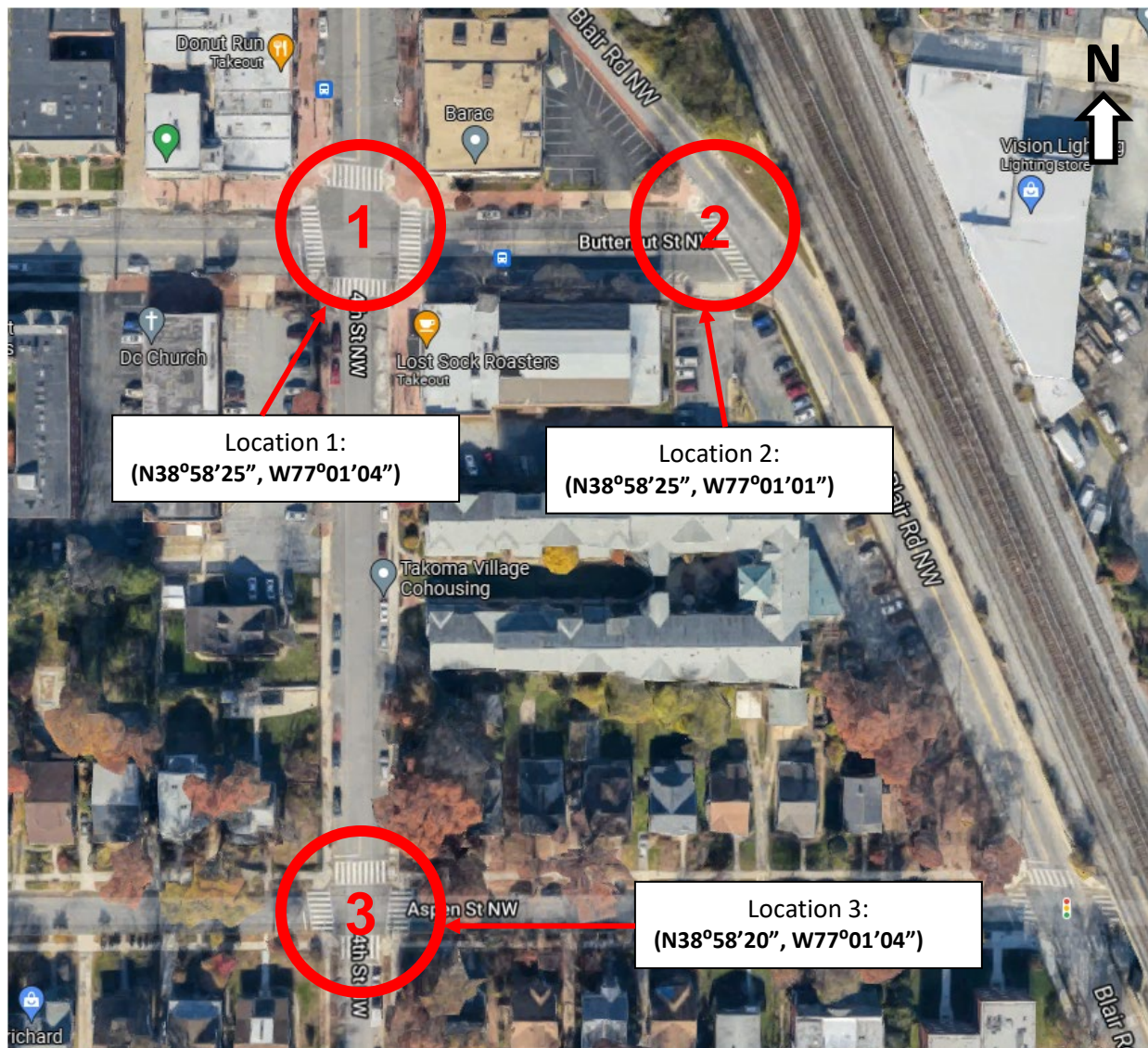


Figure 1: Study Locations 1, 2 and 3



Figure 2: Study Locations 4, 5 and 6

## EXISTING ROADWAY

### Location 1: 4<sup>th</sup> Street and Butternut Street, NW

The study segment of 4<sup>th</sup> Street, NW at Location 1 is a bi-directional collector road oriented in the north-south direction while Butternut Street, NW is a bi-directional collector road that runs in the east-west direction. There is parking on both sides of all approaches at Location 1. The intersection is controlled by an All-Way STOP Control. There is a statutory speed limit of 25 MPH at the study location. Figures 3 through 6 present the photographs of all the approaches of the intersection.



**Figure 3: 4<sup>th</sup> Street, NW Northbound Mid-approach**



**Figure 4: 4<sup>th</sup> Street, NW Southbound Mid-approach**



**Figure 5: Butternut Street, NW Eastbound Mid-approach**



**Figure 6: Butternut Street, NW Westbound Mid-approach**

**Location 2: Blair Road and Butternut Street, NW**

The study segment of Blair Road, NW at Location 2 is a bi-directional minor arterial road oriented in the northwest-southeast direction, while Butternut Street, NW is a bi-directional local road that runs in the east-west direction. There is no parking on either side of the north-westbound and south-eastbound approaches at Location 2. Butternut Street, NW has on-street parking on both sides of the road. The T-intersection is controlled by a STOP Control on the west leg (eastbound approach) of Butternut Street, NW. There is a posted speed limit of 25 MPH at the study T-intersection. Figures 7 through 9 present the photographs of all the approaches of the intersection.



**Figure 7: Blair Road, NW North-westbound Mid-approach**



**Figure 8: Blair Road, NW South-eastbound Mid-approach**



**Figure 9: Butternut Street, NW Eastbound Mid-approach**



**Location 3: 4<sup>th</sup> Street and Aspen Street, NW**

The north leg of 4<sup>th</sup> Street, NW at Location 1 is a bi-directional collector road while the south leg is a bi-directional local road. The segment is oriented in the north-south direction and has parking on both sides of the road. Aspen Street, NW is a bi-directional collector road that runs in the east-west direction. There is parking on both sides of Aspen Street, NW except on the south side of the westbound approach. The intersection is controlled by an All-Way STOP Control. There is a statutory speed limit of 25 MPH at the study location. Figures 10 through 13 present the photographs of all the approaches of the intersection.



**Figure 10: 4<sup>th</sup> Street, NW Northbound Mid-approach**



**Figure 11: 4<sup>th</sup> Street, NW Southbound Mid-approach**



**Figure 12: Aspen Street, NW Eastbound Mid-approach**



**Figure 13: Aspen Street, NW Westbound Mid-approach**

#### **Location 4: Blair Road and Whittier Street, NW**

The study segment of Blair Road, NW at Location 4 is a bi-directional minor arterial road oriented in the northwest-southeast direction, while Whittier Street, NW is a bi-directional local road that runs in the east-west direction. There is parking only on the west side of Blair Road, NW while there is no parking on either side of Whittier Street, NW at Location 4. The T-intersection is controlled by a STOP Control on the west leg (eastbound approach) of Whittier Street, NW. There is a posted speed limit of 25 MPH at the study T-intersection. Figures 14 through 16 present the photographs of all the approaches of the intersection.



**Figure 14: Blair Road, NW North-westbound Mid-approach**



**Figure 15: Blair Road, NW South-eastbound Mid-approach**



**Figure 16: Whittier Street, NW Eastbound Mid-approach**

#### **Location 5: 4<sup>th</sup> Street and Van Buren Street, NW**

The study segment of 4<sup>th</sup> Street, NW at Location 4 is a bi-directional local road oriented in the north-south direction with parking on both sides of 4<sup>th</sup> Street, NW. The east and west legs of Van Buren Street, NW are one-way local roads that run in the eastbound and westbound directions, respectively. There is parking on both sides of Van Buren Street, NW. The T-intersection is controlled by a STOP Control on the southbound approach. There is a statutory speed limit of 20 MPH at the study T-intersection. Figures 17 through 19 present the photographs of all the approaches of the intersection.



**Figure 17: 4<sup>th</sup> Street, NW Southbound Mid-approach**



**Figure 18: Van Buren Street, NW East Leg Mid-approach**



**Figure 19: Van Buren Street, NW West Leg Mid-approach**

**Location 6: 3<sup>rd</sup> Street and Van Buren Street, NW**

The study segment of 3<sup>rd</sup> Street, NW at Location 4 is a bi-directional collector road oriented in the north-south direction with parking on both sides and a statutory speed limit of 25 MPH. The west leg of Van Buren Street, NW is a one-way local road that runs in the eastbound direction while the east leg is a bi-directional local road. Both legs of Van Buren have on street parking on both sides. The intersection is controlled by an All-Way STOP Control. Figures 20 through 23 present the photographs of all the approaches of the intersection.



**Figure 20: 3<sup>rd</sup> Street, NW Northbound Mid-approach**



**Figure 21: 3<sup>rd</sup> Street, NW Southbound Mid-approach**





**Figure 22: Van Buren Street, NW Eastbound Mid-approach**



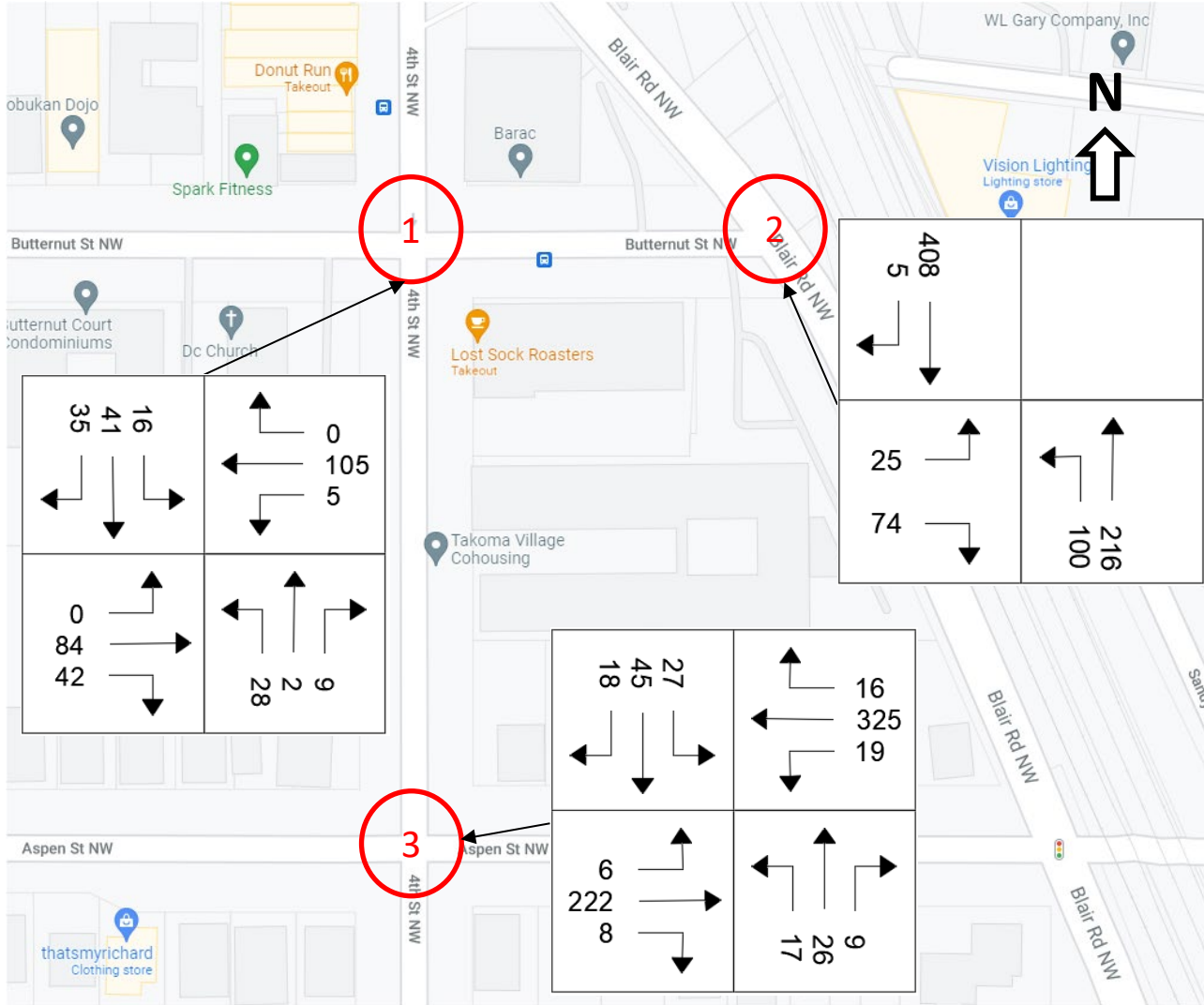
**Figure 23: Van Buren Street, NW Westbound Mid-approach**

## SUMMARY OF RESULTS

The occurrence of AM and PM peak hours at Locations 1 through 6 on September 7<sup>th</sup>, 2021, is presented in Table 1. The AM and PM peak periods were between 6:00 AM-10:00 AM and 3:00 PM-7:00 PM, respectively.

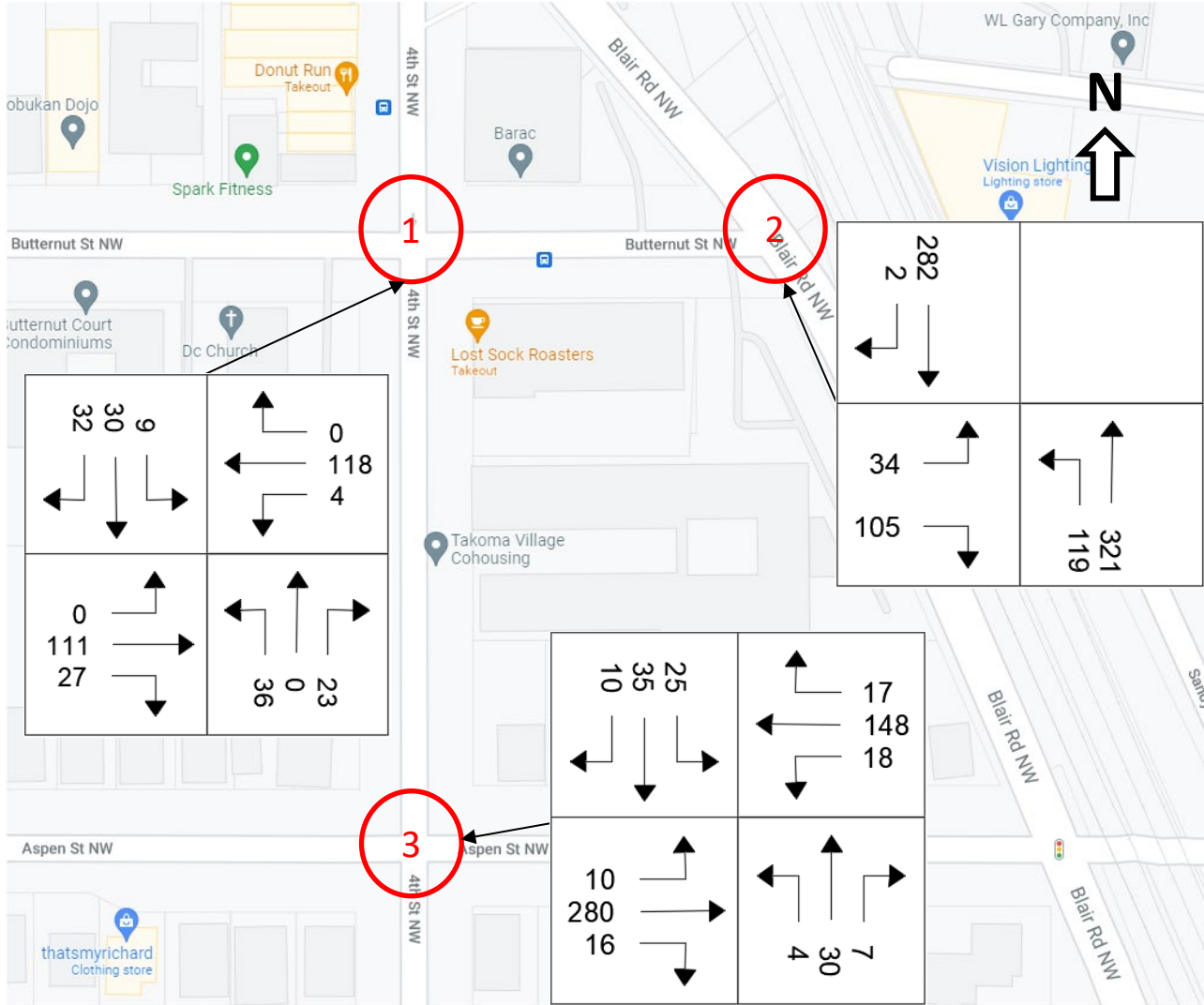
Location	Intersection Name	AM Peak Hour Begins	PM Peak Hour Begins
1	4 <sup>th</sup> Street and Butternut Street, NW	7:45 AM	3:30 PM
2	Blair Road and Butternut Street, NW	7:45 AM	3:30 PM
3	4 <sup>th</sup> Street and Aspen Street, NW	7:45 AM	3:30 PM
4	Blair Road and Whittier Street, NW	7:45 AM	5:00 PM
5	4 <sup>th</sup> Street and Van Buren Street, NW	8:15 AM	3:15 PM
6	3 <sup>rd</sup> Street and Van Buren Street, NW	7:45 AM	3:15 PM

Figures 24 and 25, respectively, present the AM and PM peak-hour traffic volumes for Locations 1, 2 and 3.



**Figure 24: AM Peak Hour Turning Movement Counts at Study Locations 1, 2 and 3**

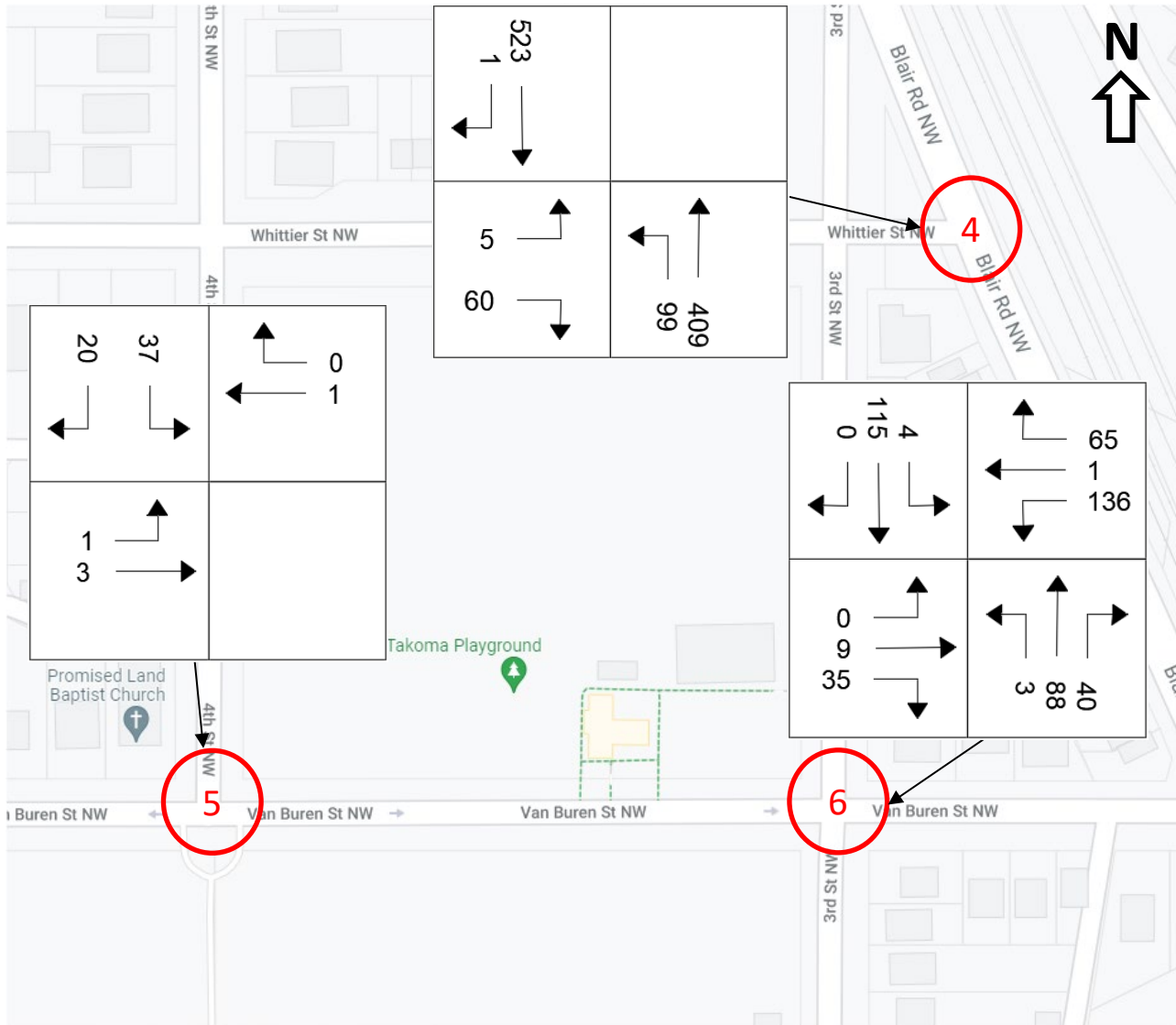
Figure 24 shows the AM Peak hour turning movement counts at Locations 1, 2 and 3. The results indicate that at Location 1, 4<sup>th</sup> Street, NW and Butternut Street, NW had AM peak hour volumes of 131 and 236 vehicles, respectively. At Location 2, Blair Road, NW and Butternut Street, NW had AM peak hour volumes of 729 and 99 vehicles, respectively. At Location 3, 4<sup>th</sup> Street, NW and Aspen Street, NW had AM peak hour volumes of 142 and 596 vehicles, respectively.



**Figure 25: PM Peak Hour Turning Movement Counts at Study Locations 1, 2 and 3**

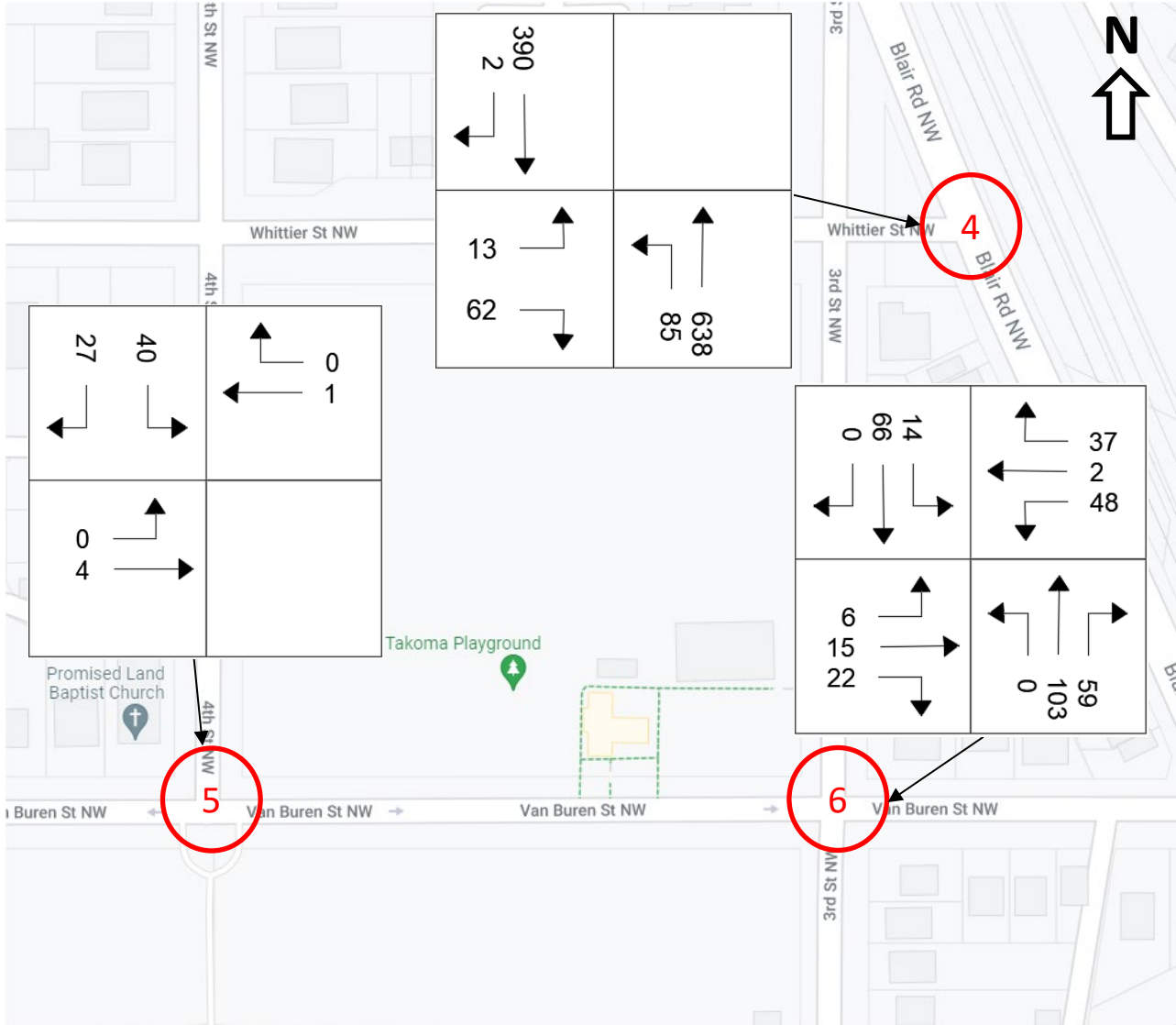
Figure 25 shows the PM Peak hour turning movement counts at Locations 1, 2 and 3. The results indicate that at Location 1, 4<sup>th</sup> Street, NW and Butternut Street, NW had PM peak hour volumes of 130 and 260 vehicles, respectively. At Location 2, Blair Road, NW and Butternut Street, NW had PM peak hour volumes of 724 and 139 vehicles, respectively. At Location 3, 4<sup>th</sup> Street, NW and Aspen Street, NW had AM peak hour volumes of 111 and 489 vehicles, respectively.

Figures 26 and 27, respectively, present the AM and PM peak-hour traffic volumes for Locations 1, 2 and 3.



**Figure 26: AM Peak Hour Turning Movement Counts at Study Locations 4, 5 and 6**

Figure 26 shows the AM Peak hour turning movement counts at Locations 4, 5 and 6. The results indicate that at Location 4, Blair Road, NW and Whittier Street, NW had AM peak hour volumes of 1,032 and 65 vehicles, respectively. At Location 5, 4<sup>th</sup> Street, NW and Van Buren Street, NW had AM peak hour volumes of 57 and 5 vehicles, respectively. At Location 6, 3<sup>rd</sup> Street, NW and Van Buren Street, NW had AM peak hour volumes of 250 and 246 vehicles, respectively.



**Figure 27: PM Peak Hour Turning Movement Counts at Study Locations 4, 5 and 6**

Figure 27 shows the PM Peak hour turning movement counts at Locations 4, 5 and 6. The results indicate that at Location 4, Blair Road, NW and Whittier Street, NW had PM peak hour volumes of 1,115 and 75 vehicles, respectively. At Location 5, 4<sup>th</sup> Street, NW and Van Buren Street, NW had PM peak hour volumes of 67 and 5 vehicles, respectively. At Location 6, 3<sup>rd</sup> Street, NW and Van Buren Street, NW had PM peak hour volumes of 242 and 130 vehicles, respectively.

A detailed breakdown of the turning movement counts are presented in the Appendix.

**APPENDIX**

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS

Start Time	4TH STREET, NW From North					BUTTERNUT STREET, NW From East					4TH STREET, NW From South					BUTTERNUT STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
	Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles																				
*** BREAK ***																					
06:15 AM	2	2	1	2	7	0	10	0	2	12	1	0	1	0	2	1	2	0	0	3	24
06:30 AM	4	0	1	2	7	0	19	0	1	20	0	0	3	0	3	3	7	0	0	10	40
06:45 AM	4	1	0	3	8	0	27	0	4	31	0	0	2	0	2	4	7	0	0	11	52
Total	10	3	2	7	22	0	56	0	7	63	1	0	6	0	7	8	16	0	0	24	116
07:00 AM	7	4	0	4	15	0	20	1	5	26	1	0	4	1	6	7	8	0	3	18	65
07:15 AM	8	3	1	3	15	0	18	1	6	25	1	0	0	0	1	5	14	0	7	26	67
07:30 AM	8	4	3	8	23	0	16	1	16	33	2	0	5	3	10	9	9	0	4	22	88
07:45 AM	11	11	3	6	31	0	25	1	14	40	0	0	5	4	9	14	16	0	4	34	114
Total	34	22	7	21	84	0	79	4	41	124	4	0	14	8	26	35	47	0	18	100	334
08:00 AM	9	9	9	5	32	0	27	2	24	53	4	0	10	3	17	11	20	0	12	43	145
08:15 AM	9	9	2	7	27	0	22	1	20	43	2	0	5	2	9	12	20	0	12	44	123
08:30 AM	6	12	2	19	39	0	31	1	2	34	3	2	8	3	16	5	28	0	14	47	136
08:45 AM	6	10	3	12	31	0	22	0	0	22	2	1	5	3	11	13	26	0	10	49	113
Total	30	40	16	43	129	0	102	4	46	152	11	3	28	11	53	41	94	0	48	183	517
09:00 AM	15	7	1	11	34	0	24	1	34	59	1	0	6	5	12	3	14	0	19	36	141
09:15 AM	5	6	1	7	19	0	9	4	10	23	1	0	7	12	20	8	12	0	5	25	87
09:30 AM	6	6	1	11	24	0	13	1	9	23	2	1	6	6	15	8	15	0	5	28	90
09:45 AM	6	6	2	1	15	0	14	2	19	35	1	0	3	2	6	4	11	0	10	25	81
Total	32	25	5	30	92	0	60	8	72	140	5	1	22	25	53	23	52	0	39	114	399
10:00 AM	3	11	6	9	29	0	21	1	5	27	3	0	2	14	19	3	16	0	6	25	100
10:15 AM	10	6	3	6	25	1	27	5	11	44	3	0	7	6	16	1	14	0	7	22	107
10:30 AM	5	10	1	3	19	1	18	2	8	29	3	0	6	6	15	5	12	0	6	23	86
10:45 AM	3	8	2	7	20	0	21	3	14	38	0	0	4	2	6	2	12	0	9	23	87
Total	21	35	12	25	93	2	87	11	38	138	9	0	19	28	56	11	54	0	28	93	380
11:00 AM	8	5	2	7	22	0	11	0	11	22	5	0	6	14	25	6	17	0	19	42	111
11:15 AM	8	4	4	8	24	0	24	1	8	33	4	0	5	7	16	6	17	0	6	29	102
11:30 AM	7	6	3	4	20	0	15	2	5	22	3	1	8	1	13	4	18	0	6	28	83
11:45 AM	5	8	6	8	27	0	20	0	8	28	0	0	5	11	16	6	17	0	6	29	100
Total	28	23	15	27	93	0	70	3	32	105	12	1	24	33	70	22	69	0	37	128	396



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS

Start Time	4TH STREET, NW From North					BUTTERNUT STREET, NW From East					4TH STREET, NW From South					BUTTERNUT STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
	12:00 PM	5	5	2	5	17	0	19	0	16	35	2	0	5	7	14	2	9	0	10	
12:15 PM	10	5	1	4	20	0	23	2	9	34	1	0	6	5	12	8	12	0	3	23	89
12:30 PM	5	4	2	5	16	1	35	2	6	44	1	1	8	6	16	6	15	0	8	29	105
12:45 PM	9	6	2	16	33	0	28	2	12	42	0	0	4	4	8	6	18	0	22	46	129
<b>Total</b>	<b>29</b>	<b>20</b>	<b>7</b>	<b>30</b>	<b>86</b>	<b>1</b>	<b>105</b>	<b>6</b>	<b>43</b>	<b>155</b>	<b>4</b>	<b>1</b>	<b>23</b>	<b>22</b>	<b>50</b>	<b>22</b>	<b>54</b>	<b>0</b>	<b>43</b>	<b>119</b>	<b>410</b>
01:00 PM	5	9	4	12	30	0	27	1	17	45	1	0	8	5	14	8	15	0	8	31	120
01:15 PM	7	10	3	12	32	0	26	1	12	39	1	0	7	6	14	4	15	1	8	28	113
01:30 PM	3	9	2	1	15	0	31	0	7	38	2	0	4	3	9	2	12	0	7	21	83
01:45 PM	3	4	4	6	17	0	31	0	7	38	1	0	3	7	11	5	12	0	1	18	84
<b>Total</b>	<b>18</b>	<b>32</b>	<b>13</b>	<b>31</b>	<b>94</b>	<b>0</b>	<b>115</b>	<b>2</b>	<b>43</b>	<b>160</b>	<b>5</b>	<b>0</b>	<b>22</b>	<b>21</b>	<b>48</b>	<b>19</b>	<b>54</b>	<b>1</b>	<b>24</b>	<b>98</b>	<b>400</b>
02:00 PM	6	3	1	3	13	0	28	1	8	37	1	1	9	9	20	4	25	0	4	33	103
02:15 PM	7	8	10	6	31	0	29	1	5	35	0	0	8	3	11	4	16	0	6	26	103
02:30 PM	5	12	1	1	19	0	30	0	3	33	5	0	4	0	9	5	15	0	0	20	81
02:45 PM	13	4	2	3	22	1	21	2	8	32	1	0	6	3	10	4	21	0	2	27	91
<b>Total</b>	<b>31</b>	<b>27</b>	<b>14</b>	<b>13</b>	<b>85</b>	<b>1</b>	<b>108</b>	<b>4</b>	<b>24</b>	<b>137</b>	<b>7</b>	<b>1</b>	<b>27</b>	<b>15</b>	<b>50</b>	<b>17</b>	<b>77</b>	<b>0</b>	<b>12</b>	<b>106</b>	<b>378</b>
03:00 PM	7	6	4	4	21	0	23	2	7	32	1	1	8	3	13	4	11	0	4	19	85
03:15 PM	4	7	3	7	21	0	26	1	14	41	3	0	8	2	13	7	18	0	7	32	107
03:30 PM	7	3	1	11	22	0	29	0	21	50	5	0	8	10	23	11	32	0	21	64	159
03:45 PM	5	10	6	16	37	0	31	0	39	70	7	0	8	7	22	8	36	0	83	127	256
<b>Total</b>	<b>23</b>	<b>26</b>	<b>14</b>	<b>38</b>	<b>101</b>	<b>0</b>	<b>109</b>	<b>3</b>	<b>81</b>	<b>193</b>	<b>16</b>	<b>1</b>	<b>32</b>	<b>22</b>	<b>71</b>	<b>30</b>	<b>97</b>	<b>0</b>	<b>115</b>	<b>242</b>	<b>607</b>
04:00 PM	7	8	2	22	39	0	26	3	38	67	8	0	9	8	25	4	22	0	31	57	188
04:15 PM	13	9	0	9	31	0	32	1	27	60	3	0	11	7	21	4	21	0	12	37	149
04:30 PM	5	7	4	4	20	0	34	2	11	47	0	0	11	4	15	12	18	0	3	33	115
04:45 PM	6	8	4	3	21	0	28	1	10	39	2	0	15	3	20	7	19	0	5	31	111
<b>Total</b>	<b>31</b>	<b>32</b>	<b>10</b>	<b>38</b>	<b>111</b>	<b>0</b>	<b>120</b>	<b>7</b>	<b>86</b>	<b>213</b>	<b>13</b>	<b>0</b>	<b>46</b>	<b>22</b>	<b>81</b>	<b>27</b>	<b>80</b>	<b>0</b>	<b>51</b>	<b>158</b>	<b>563</b>
05:00 PM	9	6	6	1	22	0	39	0	7	46	4	0	13	7	24	4	26	0	6	36	128
05:15 PM	4	12	3	5	24	0	23	0	8	31	6	1	8	0	15	11	25	3	5	44	114
05:30 PM	4	6	2	1	13	0	31	1	10	42	3	0	12	6	21	7	20	0	4	31	107
05:45 PM	6	5	1	8	20	0	34	0	11	45	3	0	17	5	25	6	12	0	8	26	116
<b>Total</b>	<b>23</b>	<b>29</b>	<b>12</b>	<b>15</b>	<b>79</b>	<b>0</b>	<b>127</b>	<b>1</b>	<b>36</b>	<b>164</b>	<b>16</b>	<b>1</b>	<b>50</b>	<b>18</b>	<b>85</b>	<b>28</b>	<b>83</b>	<b>3</b>	<b>23</b>	<b>137</b>	<b>465</b>

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS

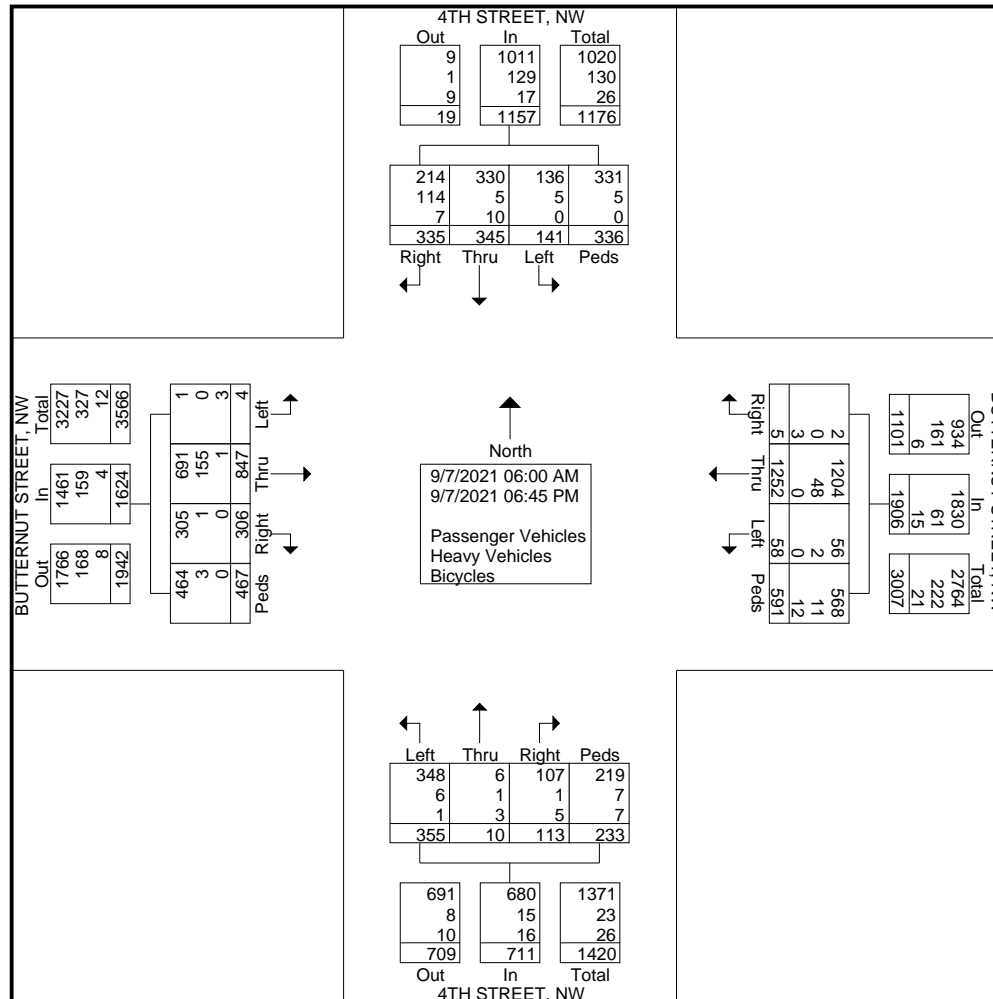
Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	4TH STREET, NW From North					BUTTERNUT STREET, NW From East					4TH STREET, NW From South					BUTTERNUT STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 PM	3	11	3	4	21	1	23	1	15	40	4	0	18	4	26	5	14	0	6	25	112
06:15 PM	6	13	2	5	26	0	37	3	13	53	2	0	12	1	15	11	21	0	11	43	137
06:30 PM	11	2	4	2	19	0	27	0	7	34	4	0	6	2	12	4	17	0	7	28	93
06:45 PM	5	5	5	7	22	0	27	1	7	35	0	1	6	1	8	3	18	0	5	26	91
<b>Total</b>	<b>25</b>	<b>31</b>	<b>14</b>	<b>18</b>	<b>88</b>	<b>1</b>	<b>114</b>	<b>5</b>	<b>42</b>	<b>162</b>	<b>10</b>	<b>1</b>	<b>42</b>	<b>8</b>	<b>61</b>	<b>23</b>	<b>70</b>	<b>0</b>	<b>29</b>	<b>122</b>	<b>433</b>
<b>Grand Total</b>	<b>335</b>	<b>345</b>	<b>141</b>	<b>336</b>	<b>1157</b>	<b>5</b>	<b>1252</b>	<b>58</b>	<b>591</b>	<b>1906</b>	<b>113</b>	<b>10</b>	<b>355</b>	<b>233</b>	<b>711</b>	<b>306</b>	<b>847</b>	<b>4</b>	<b>467</b>	<b>1624</b>	<b>5398</b>
Apprch %	29	29.8	12.2	29		0.3	65.7	3	31		15.9	1.4	49.9	32.8		18.8	52.2	0.2	28.8		
Total %	6.2	6.4	2.6	6.2	21.4	0.1	23.2	1.1	10.9	35.3	2.1	0.2	6.6	4.3	13.2	5.7	15.7	0.1	8.7	30.1	
Passenger Vehicles																					
% Passenger Vehicles	63.9	95.7	96.5	98.5	87.4	40	96.2	96.6	96.1	96	94.7	60	98	94	95.6	99.7	81.6	25	99.4	90	92.3
Heavy Vehicles	114	5	5	5	129	0	48	2	11	61	1	1	6	7	15	1	155	0	3	159	364
% Heavy Vehicles	34	1.4	3.5	1.5	11.1	0	3.8	3.4	1.9	3.2	0.9	10	1.7	3	2.1	0.3	18.3	0	0.6	9.8	6.7
Bicycles	7	10	0	0	17	3	0	0	12	15	5	3	1	7	16	0	1	3	0	4	52
% Bicycles	2.1	2.9	0	0	1.5	60	0	0	2	0.8	4.4	30	0.3	3	2.3	0	0.1	75	0	0.2	1

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

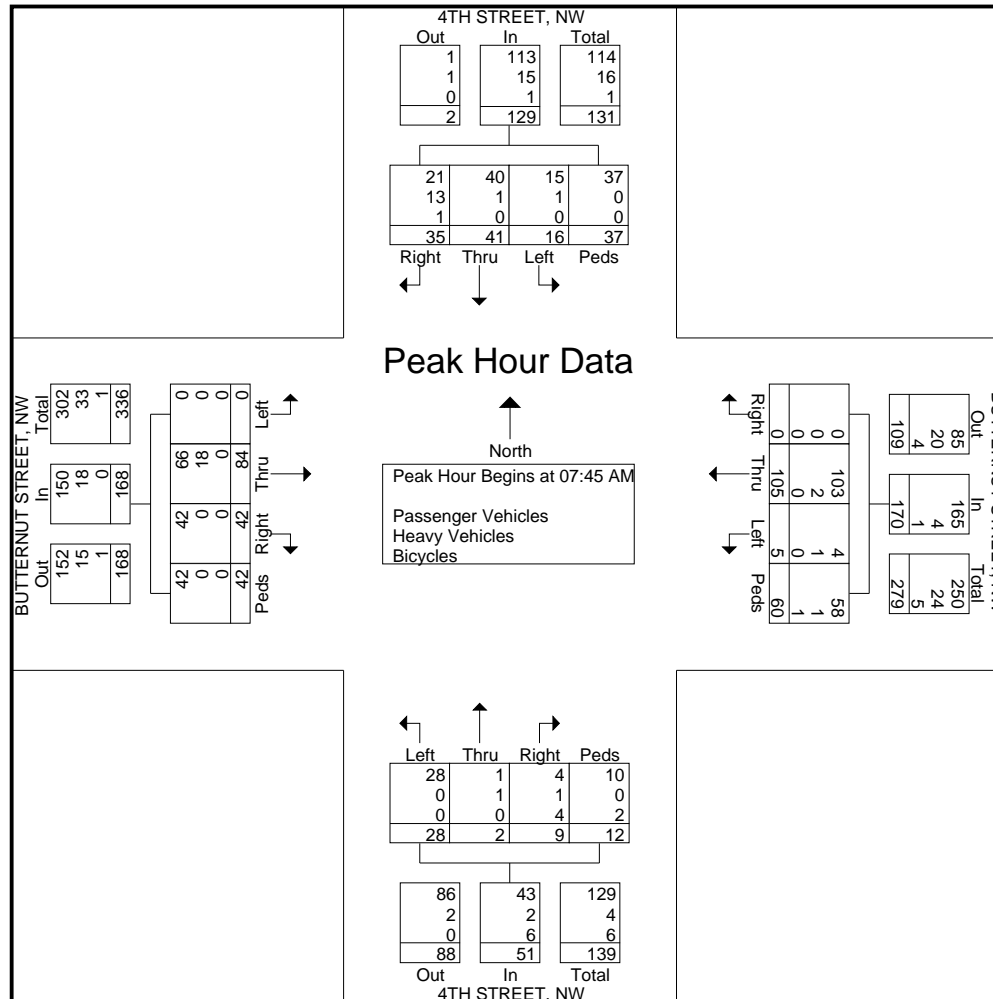
## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS

Start Time	4TH STREET, NW From North					BUTTERNUT STREET, NW From East					4TH STREET, NW From South					BUTTERNUT STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	11																				
08:00 AM	9	9	9	5	32	0	27	2	24	53	4	0	10	3	17	11	20	0	12	43	145
08:15 AM	9	9	2	7	27	0	22	1	20	43	2	0	5	2	9	12	20	0	12	44	123
08:30 AM	6	12	2	19	39	0	31	1	2	34	3	2	8	3	16	5	28	0	14	47	136
Total Volume	35	41	16	37	129	0	105	5	60	170	9	2	28	12	51	42	84	0	42	168	518
% App. Total	27.1	31.8	12.4	28.7		0	61.8	2.9	35.3		17.6	3.9	54.9	23.5		25	50	0	25		
PHF	.795	.854	.444	.487	.827	.000	.847	.625	.625	.802	.563	.250	.700	.750	.750	.750	.750	.000	.750	.894	.893
Passenger Vehicles	21	40	15	37	113	0	103	4	58	165	4	1	28	10	43	42	66	0	42	150	471
% Passenger Vehicles	60.0	97.6	93.8	100	87.6	0	98.1	80.0	96.7	97.1	44.4	50.0	100	83.3	84.3	100	78.6	0	100	89.3	90.9
Heavy Vehicles	13	1	1	0	15	0	2	1	1	4	1	1	0	0	2	0	18	0	0	18	39
% Heavy Vehicles	37.1	2.4	6.3	0	11.6	0	1.9	20.0	1.7	2.4	11.1	50.0	0	0	3.9	0	21.4	0	0	10.7	7.5
Bicycles	1	0	0	0	1	0	0	0	1	1	4	0	0	2	6	0	0	0	0	0	8
% Bicycles	2.9	0	0	0	0.8	0	0	0	1.7	0.6	44.4	0	0	16.7	11.8	0	0	0	0	0	1.5

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateg.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

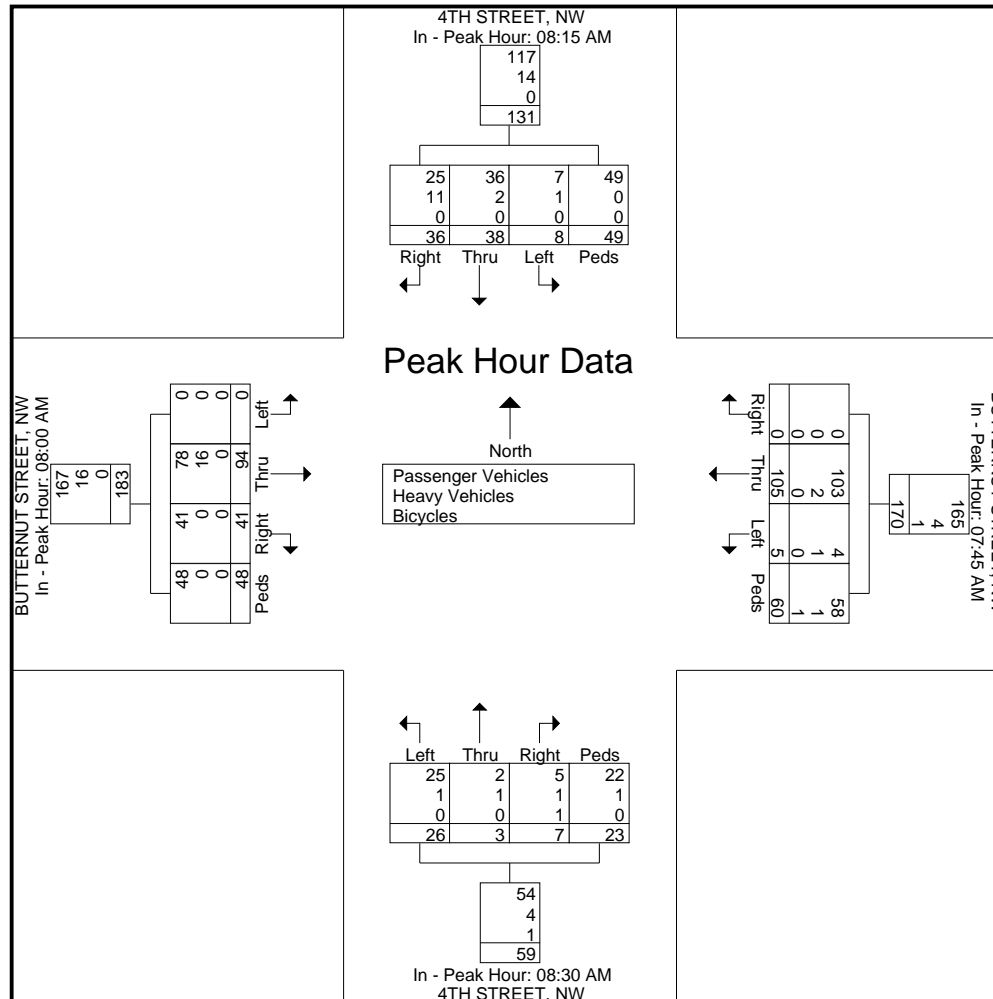
## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS

	4TH STREET, NW From North					BUTTERNUT STREET, NW From East					4TH STREET, NW From South					BUTTERNUT STREET, NW From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:15 AM					07:45 AM					08:30 AM					08:00 AM					
+0 mins.	9	9	2	7	27	0	25	1	14	40	3	2	8	3	16	11	20	0	12	43	
+15 mins.	6	12	2	19	39	0	27	2	24	53	2	1	5	3	11	12	20	0	12	44	
+30 mins.	6	10	3	12	31	0	22	1	20	43	1	0	6	5	12	5	28	0	14	47	
+45 mins.	15	7	1	11	34	0	31	1	2	34	1	0	7	12	20	13	26	0	10	49	
Total Volume	36	38	8	49	131	0	105	5	60	170	7	3	26	23	59	41	94	0	48	183	
% App. Total	27.5	29	6.1	37.4		0	61.8	2.9	35.3		11.9	5.1	44.1	39		22.4	51.4	0	26.2		
PHF	.600	.792	.667	.645	.840	.000	.847	.625	.625	.802	.583	.375	.813	.479	.738	.788	.839	.000	.857	.934	
Passenger Vehicles	25	36	7	49	117	0	103	4	58	165	5	2	25	22	54	41	78	0	48	167	
% Passenger Vehicles	69.4	94.7	87.5	100	89.3	0	98.1	80	96.7	97.1	71.4	66.7	96.2	95.7	91.5	100	83	0	100	91.3	
Heavy Vehicles	11	2	1	0	14	0	2	1	1	4	1	1	1	1	4	0	16	0	0	16	
% Heavy Vehicles	30.6	5.3	12.5	0	10.7	0	1.9	20	1.7	2.4	14.3	33.3	3.8	4.3	6.8	0	17	0	0	8.7	
Bicycles	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	
% Bicycles	0	0	0	0	0	0	0	0	1.7	0.6	14.3	0	0	0	1.7	0	0	0	0	0	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS

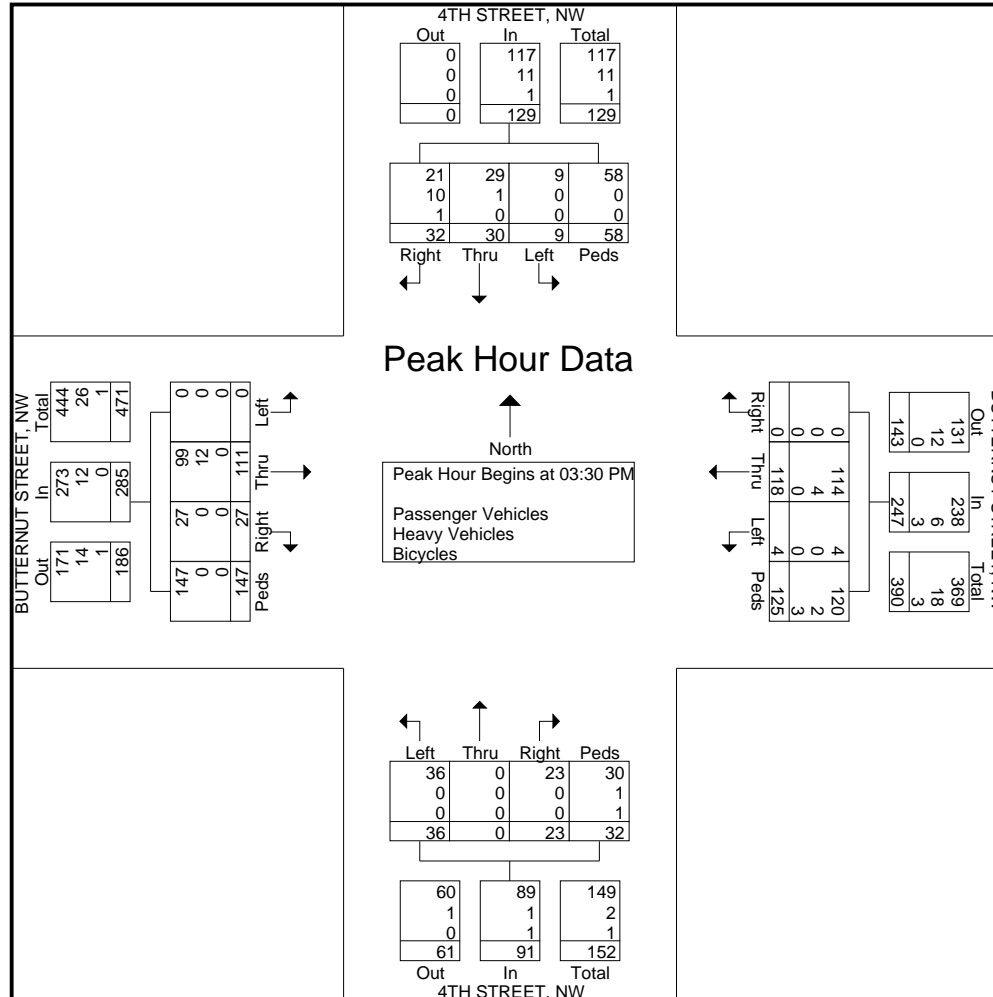
Start Time	4TH STREET, NW From North					BUTTERNUT STREET, NW From East					4TH STREET, NW From South					BUTTERNUT STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	7	3	1	11	22	0	29	0	21	50	5	0	8	10	22	11	0	0	0	0	0
03:45 PM	5	10	6	16	37	0	31	0	39	70	7	0	8	7	22	8	36	0	83	127	256
04:00 PM	7	8	2	22	39	0	26	3	38	67	8	0	9	8	25	4	22	0	31	57	188
04:15 PM	13	9	0	9	31	0	32	1	27	60	3	0	11	7	21	4	21	0	12	37	149
Total Volume	32	30	9	58	129	0	118	4	125	247	23	0	36	32	91	27	111	0	147	285	752
% App. Total	24.8	23.3	7	45		0	47.8	1.6	50.6		25.3	0	39.6	35.2		9.5	38.9	0	51.6		
PHF	.615	.750	.375	.659	.827	.000	.922	.333	.801	.882	.719	.000	.818	.800	.910	.614	.771	.000	.443	.561	.734
Passenger Vehicles	21	29	9	58	117	0	114	4	120	238	23	0	36	30	89	27	99	0	147	273	717
% Passenger Vehicles	65.6	96.7	100	100	90.7	0	96.6	100	96.0	96.4	100	0	100	93.8	97.8	100	89.2	0	100	95.8	95.3
Heavy Vehicles	10	1	0	0	11	0	4	0	2	6	0	0	0	1	1	0	12	0	0	12	30
% Heavy Vehicles	31.3	3.3	0	0	8.5	0	3.4	0	1.6	2.4	0	0	0	3.1	1.1	0	10.8	0	0	4.2	4.0
Bicycles	1	0	0	0	1	0	0	0	3	3	0	0	0	1	1	0	0	0	0	0	5
% Bicycles	3.1	0	0	0	0.8	0	0	0	2.4	1.2	0	0	0	3.1	1.1	0	0	0	0	0	0.7



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateg.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

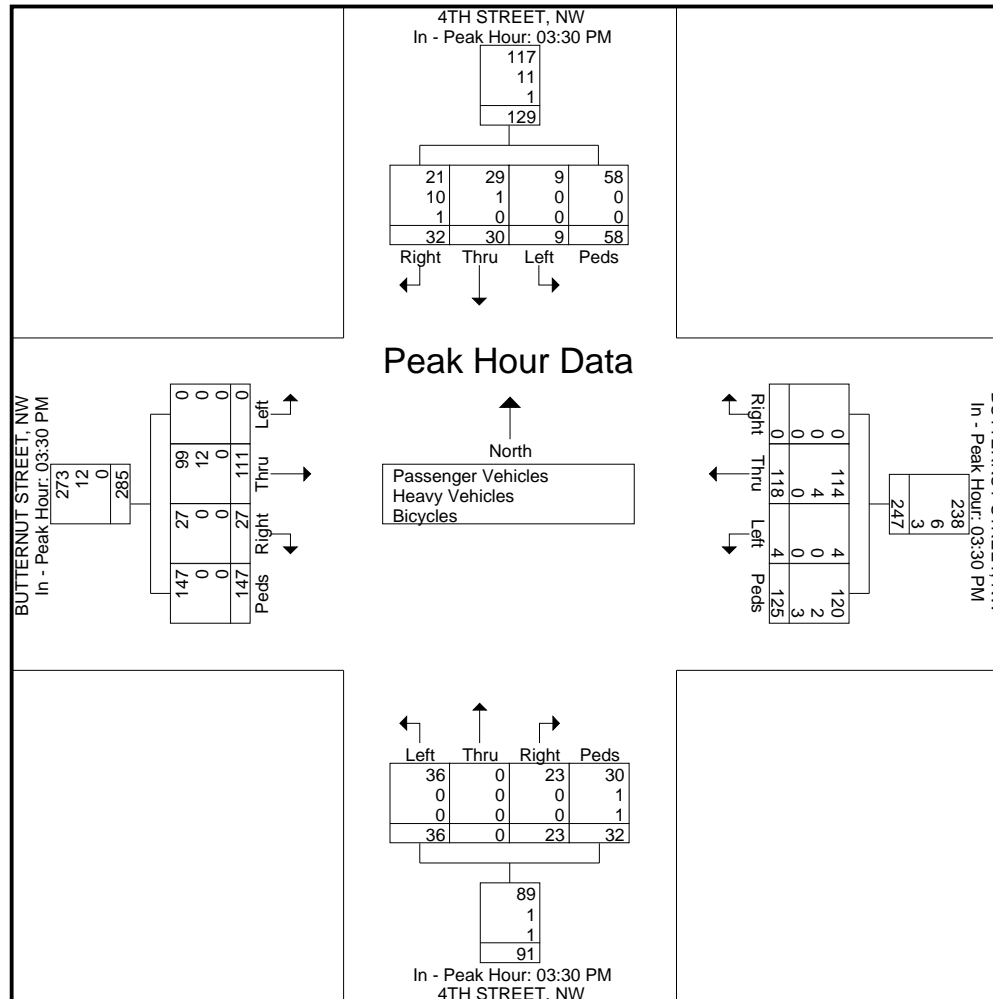
## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS

	4TH STREET, NW From North					BUTTERNUT STREET, NW From East					4TH STREET, NW From South					BUTTERNUT STREET, NW From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:30 PM					03:30 PM					03:30 PM					03:30 PM					
+0 mins.	7	3	1	11	22	0	29	0	21	50	5	0	8	10	23	11	32	0	21	64	
+15 mins.	5	10	6	16	37	0	31	0	39	70	7	0	8	7	22	8	36	0	83	127	
+30 mins.	7	8	2	22	39	0	26	3	38	67	8	0	9	8	25	4	22	0	31	57	
+45 mins.	13	9	0	9	31	0	32	1	27	60	3	0	11	7	21	4	21	0	12	37	
Total Volume	32	30	9	58	129	0	118	4	125	247	23	0	36	32	91	27	111	0	147	285	
% App. Total	24.8	23.3	7	45		0	47.8	1.6	50.6		25.3	0	39.6	35.2		9.5	38.9	0	51.6		
PHF	.615	.750	.375	.659	.827	.000	.922	.333	.801	.882	.719	.000	.818	.800	.910	.614	.771	.000	.443	.561	
Passenger Vehicles	21	29	9	58	117	0	114	4	120	238	23	0	36	30	89	27	99	0	147	273	
% Passenger Vehicles	65.6	96.7	100	100	90.7	0	96.6	100	96	96.4	100	0	100	93.8	97.8	100	89.2	0	100	95.8	
Heavy Vehicles	10	1	0	0	11	0	4	0	2	6	0	0	0	1	1	0	12	0	0	12	
% Heavy Vehicles	31.2	3.3	0	0	8.5	0	3.4	0	1.6	2.4	0	0	0	3.1	1.1	0	10.8	0	0	4.2	
Bicycles	1	0	0	0	1	0	0	0	3	3	0	0	0	1	1	0	0	0	0	0	
% Bicycles	3.1	0	0	0	0.8	0	0	0	2.4	1.2	0	0	0	3.1	1.1	0	0	0	0	0	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## 4TH STREET, NW AND BUTTERNUT STREET, NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## BLAIR ROAD, NW AND BUTTERNUT STREET, NW PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	BLAIR ROAD, NW From Northwest				BLAIR ROAD, NW From Southeast				BUTTERNUT STREET, NW From West				Int. Total
	Hard Right	Thru	Peds	App. Total	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	
06:00 AM	0	63	0	63	24	5	0	29	1	2	0	3	95
06:15 AM	0	55	0	55	25	10	0	35	4	1	0	5	95
06:30 AM	0	75	0	75	28	21	0	49	6	2	3	11	135
06:45 AM	0	54	0	54	40	24	0	64	6	2	3	11	129
Total	0	247	0	247	117	60	0	177	17	7	6	30	454
07:00 AM	0	92	0	92	46	21	0	67	6	2	5	13	172
07:15 AM	0	104	0	104	51	18	0	69	10	5	1	16	189
07:30 AM	2	95	0	97	47	15	0	62	11	3	5	19	178
07:45 AM	1	115	0	116	50	23	0	73	15	4	5	24	213
Total	3	406	0	409	194	77	0	271	42	14	16	72	752
08:00 AM	0	95	0	95	51	27	0	78	19	10	5	34	207
08:15 AM	1	106	0	107	55	23	0	78	19	4	4	27	212
08:30 AM	3	92	0	95	60	27	0	87	21	7	3	31	213
08:45 AM	1	68	0	69	60	28	0	88	20	7	3	30	187
Total	5	361	0	366	226	105	0	331	79	28	15	122	819
09:00 AM	1	76	0	77	49	26	0	75	11	4	5	20	172
09:15 AM	1	54	0	55	40	11	0	51	10	7	5	22	128
09:30 AM	0	60	0	60	49	14	0	63	14	3	0	17	140
09:45 AM	0	53	0	53	45	15	0	60	12	3	0	15	128
Total	2	243	0	245	183	66	0	249	47	17	10	74	568
10:00 AM	0	53	0	53	58	24	0	82	18	5	2	25	160
10:15 AM	2	54	0	56	48	27	0	75	12	4	0	16	147
10:30 AM	2	57	0	59	50	17	0	67	12	2	3	17	143
10:45 AM	1	61	0	62	46	21	0	67	10	3	1	14	143
Total	5	225	0	230	202	89	0	291	52	14	6	72	593
11:00 AM	1	55	0	56	54	9	0	63	19	3	5	27	146
11:15 AM	0	67	0	67	46	21	0	67	19	3	3	25	159
11:30 AM	0	54	0	54	45	15	0	60	19	2	0	21	135
11:45 AM	0	55	0	55	54	19	0	73	21	3	2	26	154
Total	1	231	0	232	199	64	0	263	78	11	10	99	594

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## BLAIR ROAD, NW AND BUTTERNUT STREET, NW PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	BLAIR ROAD, NW From Northwest				BLAIR ROAD, NW From Southeast				BUTTERNUT STREET, NW From West				Int. Total
	Hard Right	Thru	Peds	App. Total	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	
12:00 PM	0	51	0	51	46	20	0	66	10	5	1	16	133
12:15 PM	2	74	0	76	47	23	0	70	10	3	2	15	161
12:30 PM	1	54	0	55	56	34	0	90	15	5	1	21	166
12:45 PM	1	75	0	76	50	29	0	79	18	1	0	19	174
Total	4	254	0	258	199	106	0	305	53	14	4	71	634
01:00 PM	0	61	0	61	53	23	0	76	15	3	14	32	169
01:15 PM	1	61	0	62	55	22	0	77	12	5	3	20	159
01:30 PM	1	58	0	59	50	29	0	79	10	3	1	14	152
01:45 PM	0	54	0	54	58	30	0	88	12	3	4	19	161
Total	2	234	0	236	216	104	0	320	49	14	22	85	641
02:00 PM	2	64	0	66	77	26	0	103	19	5	0	24	193
02:15 PM	2	61	0	63	63	27	0	90	26	2	1	29	182
02:30 PM	1	89	0	90	82	29	0	111	13	6	3	22	223
02:45 PM	2	84	0	86	74	20	0	94	20	6	3	29	209
Total	7	298	0	305	296	102	0	398	78	19	7	104	807
03:00 PM	2	60	0	62	75	25	0	100	8	8	1	17	179
03:15 PM	0	72	0	72	78	25	0	103	18	5	0	23	198
03:30 PM	0	92	0	92	76	33	0	109	29	5	7	41	242
03:45 PM	1	52	0	53	74	27	0	101	38	14	4	56	210
Total	3	276	0	279	303	110	0	413	93	32	12	137	829
04:00 PM	0	76	0	76	86	28	0	114	23	6	2	31	221
04:15 PM	1	62	0	63	85	31	0	116	15	9	3	27	206
04:30 PM	3	65	0	68	87	29	0	116	15	5	4	24	208
04:45 PM	1	63	0	64	84	22	0	106	19	10	6	35	205
Total	5	266	0	271	342	110	0	452	72	30	15	117	840
05:00 PM	0	68	0	68	87	33	0	120	22	4	3	29	217
05:15 PM	1	67	0	68	91	23	0	114	29	9	1	39	221
05:30 PM	1	78	0	79	85	32	0	117	17	7	7	31	227
05:45 PM	1	67	0	68	86	35	0	121	10	7	6	23	212
Total	3	280	0	283	349	123	0	472	78	27	17	122	877

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## BLAIR ROAD, NW AND BUTTERNUT STREET, NW PEAK HOURS

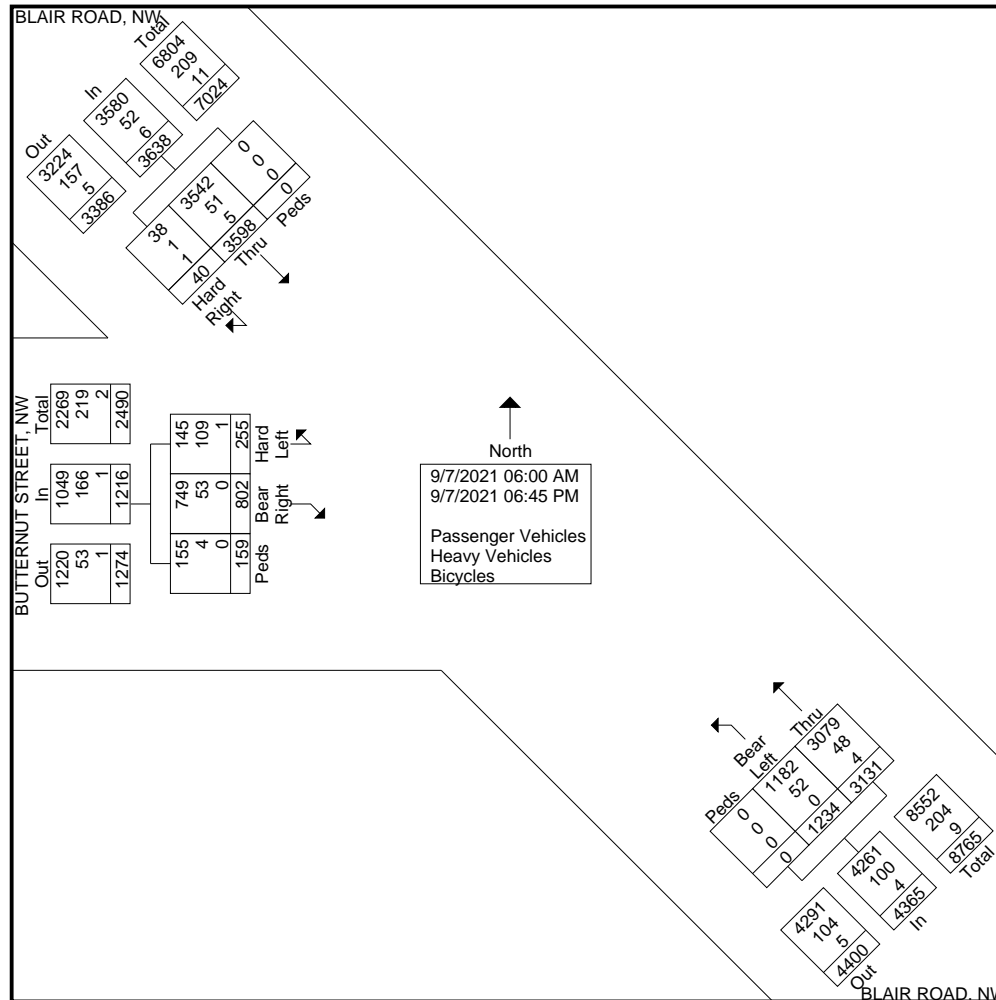
Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	BLAIR ROAD, NW From Northwest				BLAIR ROAD, NW From Southeast				BUTTERNUT STREET, NW From West				Int. Total
	Hard Right	Thru	Peds	App. Total	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	
06:00 PM	0	66	0	66	90	24	0	114	12	5	5	22	202
06:15 PM	0	59	0	59	69	38	0	107	20	8	7	35	201
06:30 PM	0	86	0	86	68	27	0	95	15	7	3	25	206
06:45 PM	0	66	0	66	78	29	0	107	17	8	4	29	202
Total	0	277	0	277	305	118	0	423	64	28	19	111	811
Grand Total	40	3598	0	3638	3131	1234	0	4365	802	255	159	1216	9219
Apprch %	1.1	98.9	0		71.7	28.3	0		66	21	13.1		
Total %	0.4	39	0	39.5	34	13.4	0	47.3	8.7	2.8	1.7	13.2	
Passenger Vehicles	38	3542	0	3580	3079	1182	0	4261	749	145	155	1049	8890
% Passenger Vehicles	95	98.4	0	98.4	98.3	95.8	0	97.6	93.4	56.9	97.5	86.3	96.4
Heavy Vehicles	1	51	0	52	48	52	0	100	53	109	4	166	318
% Heavy Vehicles	2.5	1.4	0	1.4	1.5	4.2	0	2.3	6.6	42.7	2.5	13.7	3.4
Bicycles	1	5	0	6	4	0	0	4	0	1	0	1	11
% Bicycles	2.5	0.1	0	0.2	0.1	0	0	0.1	0	0.4	0	0.1	0.1

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## BLAIR ROAD, NW AND BUTTERNUT STREET, NW PEAK HOURS



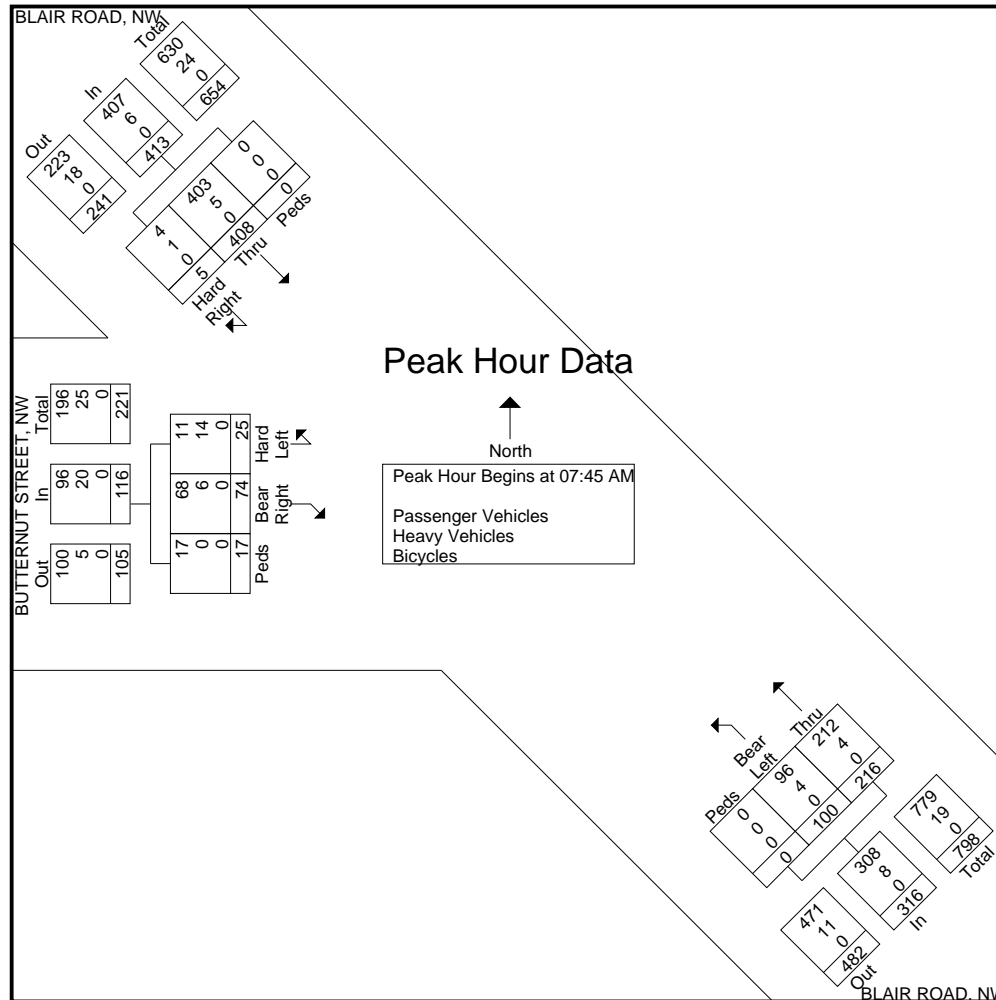




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## BLAIR ROAD, NW AND BUTTERNUT STREET, NW PEAK HOURS

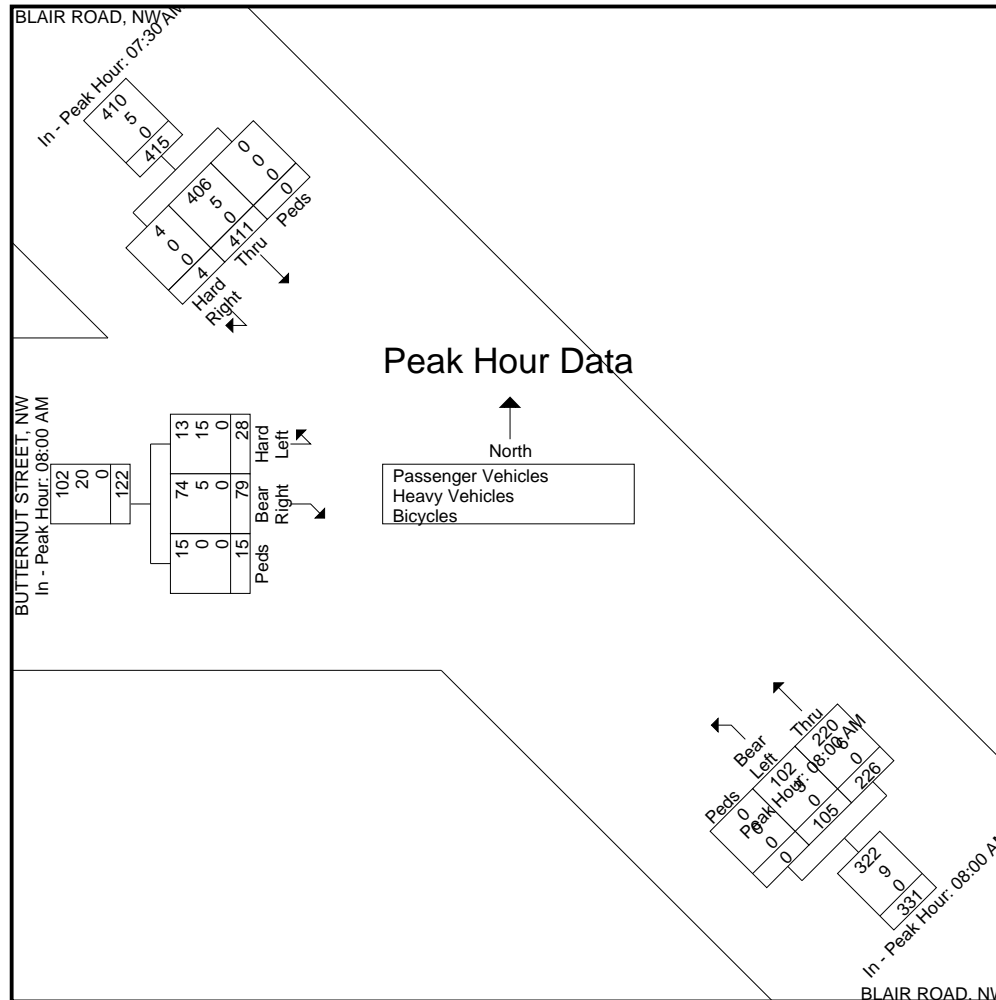




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## BLAIR ROAD, NW AND BUTTERNUT STREET, NW PEAK HOURS

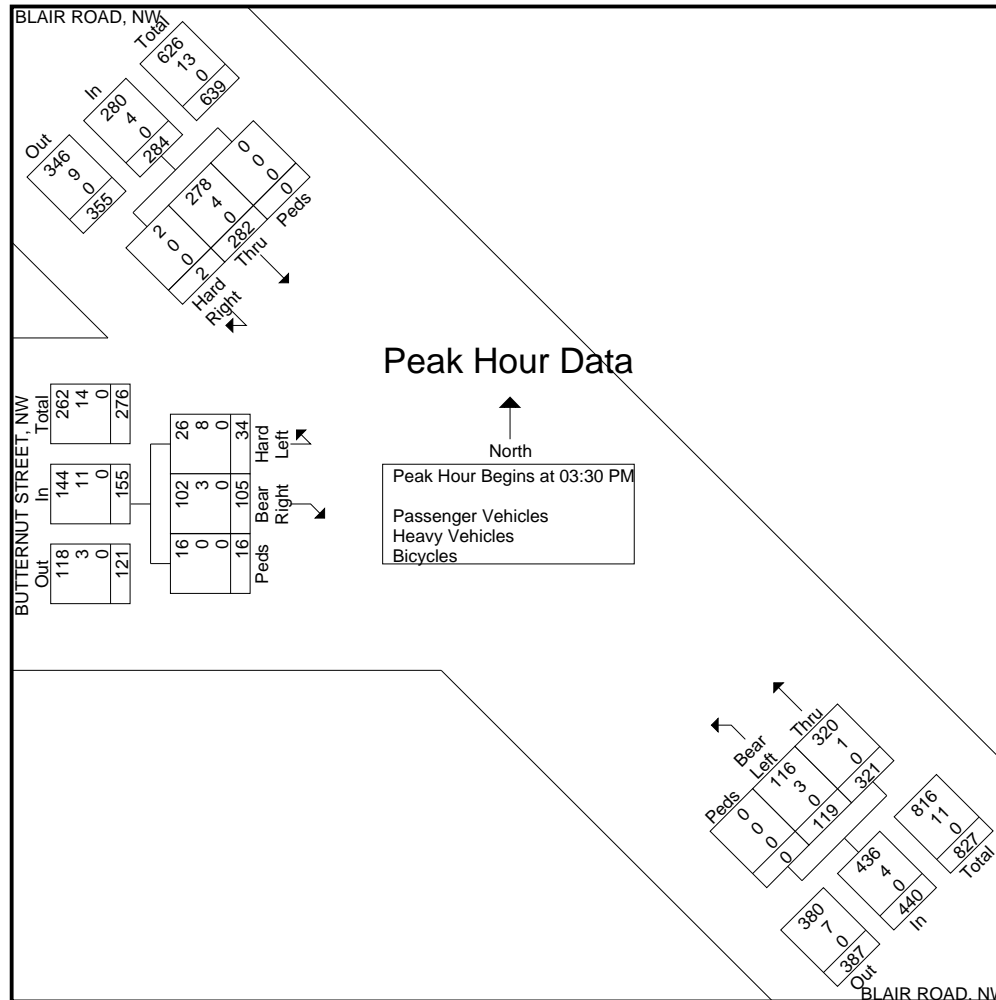




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## BLAIR ROAD, NW AND BUTTERNUT STREET, NW PEAK HOURS

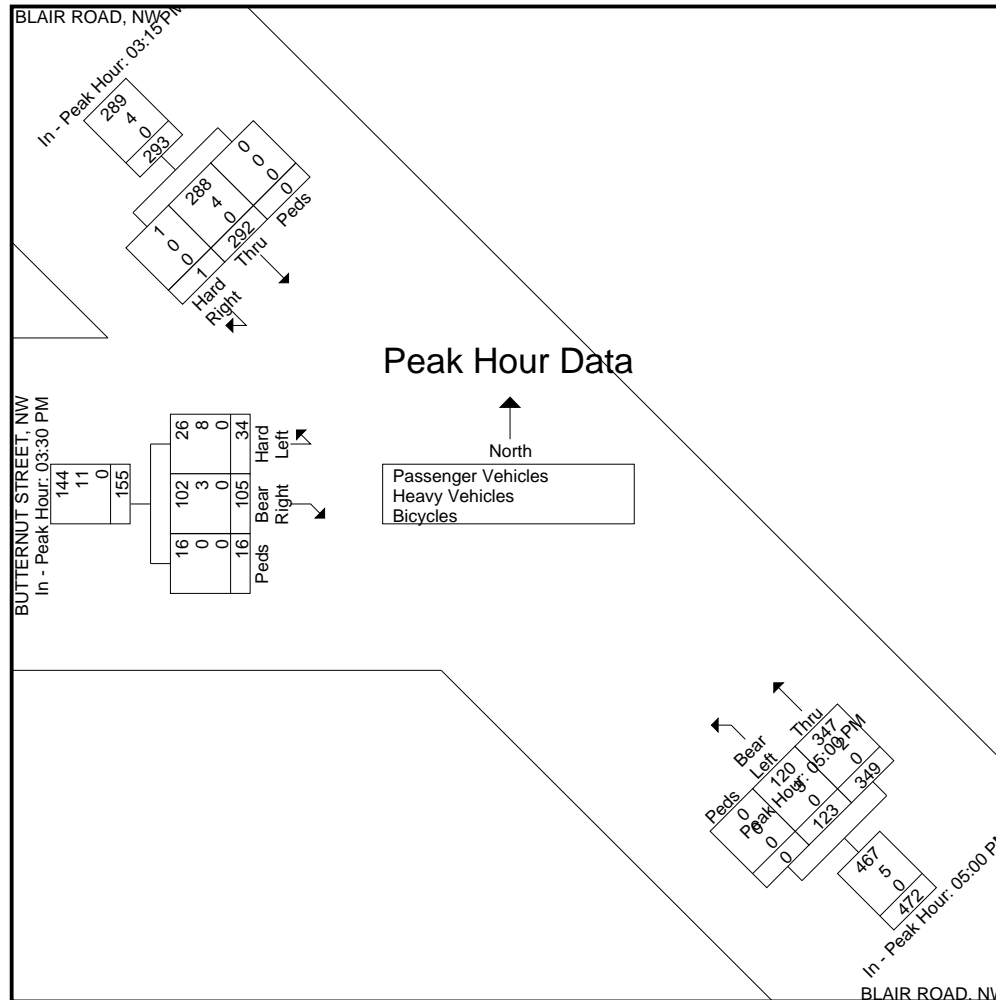




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## BLAIR ROAD, NW AND BUTTERNUT STREET, NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS

Start Time	4TH STREET, NW From North					ASPEN STREET, NW From East					4TH STREET, NW From South					ASPEN STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
	Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles																				
06:00 AM	0	0	0	0	0	0	9	1	1	11	0	1	1	0	2	1	4	0	0	5	18
06:15 AM	0	2	0	0	2	1	11	0	1	13	0	1	1	0	2	2	8	1	0	11	28
06:30 AM	0	0	3	1	4	0	23	2	1	26	0	3	0	1	4	0	9	0	0	9	43
06:45 AM	0	1	2	3	6	2	25	0	2	29	1	1	2	1	5	1	13	1	0	15	55
<b>Total</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>12</b>	<b>3</b>	<b>68</b>	<b>3</b>	<b>5</b>	<b>79</b>	<b>1</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>13</b>	<b>4</b>	<b>34</b>	<b>2</b>	<b>0</b>	<b>40</b>	<b>144</b>
07:00 AM	1	5	4	4	14	1	39	0	3	43	0	2	4	1	7	2	16	1	1	20	84
07:15 AM	1	1	5	3	10	3	50	2	6	61	0	1	4	1	6	1	26	0	2	29	106
07:30 AM	2	6	7	5	20	2	64	3	10	79	1	4	4	4	13	0	22	0	7	29	141
07:45 AM	4	13	7	5	29	5	97	4	10	116	0	5	7	5	17	1	39	1	7	48	210
<b>Total</b>	<b>8</b>	<b>25</b>	<b>23</b>	<b>17</b>	<b>73</b>	<b>11</b>	<b>250</b>	<b>9</b>	<b>29</b>	<b>299</b>	<b>1</b>	<b>12</b>	<b>19</b>	<b>11</b>	<b>43</b>	<b>4</b>	<b>103</b>	<b>2</b>	<b>17</b>	<b>126</b>	<b>541</b>
08:00 AM	5	8	10	4	27	7	88	4	23	122	1	6	4	6	17	3	52	1	5	61	227
08:15 AM	3	15	6	11	35	1	65	5	20	91	4	7	5	20	36	2	82	2	11	97	259
08:30 AM	6	9	4	17	36	3	75	6	25	109	4	8	1	6	19	2	49	2	20	73	237
08:45 AM	1	11	9	7	28	2	35	1	39	77	2	7	0	7	16	0	33	2	9	44	165
<b>Total</b>	<b>15</b>	<b>43</b>	<b>29</b>	<b>39</b>	<b>126</b>	<b>13</b>	<b>263</b>	<b>16</b>	<b>107</b>	<b>399</b>	<b>11</b>	<b>28</b>	<b>10</b>	<b>39</b>	<b>88</b>	<b>7</b>	<b>216</b>	<b>7</b>	<b>45</b>	<b>275</b>	<b>888</b>
09:00 AM	0	9	3	3	15	2	32	0	20	54	2	3	0	4	9	2	26	2	11	41	119
09:15 AM	4	5	10	3	22	4	28	0	11	43	2	5	0	2	9	1	33	2	6	42	116
09:30 AM	1	7	7	1	16	2	26	1	6	35	1	6	1	0	8	1	26	1	3	31	90
09:45 AM	5	1	5	3	14	0	28	0	14	42	5	1	1	4	11	2	30	0	4	36	103
<b>Total</b>	<b>10</b>	<b>22</b>	<b>25</b>	<b>10</b>	<b>67</b>	<b>8</b>	<b>114</b>	<b>1</b>	<b>51</b>	<b>174</b>	<b>10</b>	<b>15</b>	<b>2</b>	<b>10</b>	<b>37</b>	<b>6</b>	<b>115</b>	<b>5</b>	<b>24</b>	<b>150</b>	<b>428</b>
10:00 AM	2	5	7	1	15	4	33	0	2	39	2	2	4	2	10	0	28	2	2	32	96
10:15 AM	5	6	3	2	16	6	27	2	6	41	2	1	1	3	7	1	25	2	5	33	97
10:30 AM	4	8	8	0	20	2	22	0	2	26	2	5	1	2	10	0	27	0	3	30	86
10:45 AM	4	3	4	3	14	4	31	1	3	39	0	1	2	2	5	1	24	1	3	29	87
<b>Total</b>	<b>15</b>	<b>22</b>	<b>22</b>	<b>6</b>	<b>65</b>	<b>16</b>	<b>113</b>	<b>3</b>	<b>13</b>	<b>145</b>	<b>6</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>32</b>	<b>2</b>	<b>104</b>	<b>5</b>	<b>13</b>	<b>124</b>	<b>366</b>
11:00 AM	1	2	4	1	8	2	20	3	8	33	2	3	1	5	11	1	30	4	1	36	88
11:15 AM	2	6	5	0	13	3	21	2	6	32	0	4	2	6	12	0	32	1	3	36	93
11:30 AM	3	6	5	2	16	6	26	3	55	90	0	4	3	3	10	1	26	1	2	30	146
11:45 AM	1	7	5	4	17	2	24	1	68	95	0	3	2	0	5	0	23	0	5	28	145
<b>Total</b>	<b>7</b>	<b>21</b>	<b>19</b>	<b>7</b>	<b>54</b>	<b>13</b>	<b>91</b>	<b>9</b>	<b>137</b>	<b>250</b>	<b>2</b>	<b>14</b>	<b>8</b>	<b>14</b>	<b>38</b>	<b>2</b>	<b>111</b>	<b>6</b>	<b>11</b>	<b>130</b>	<b>472</b>



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	4TH STREET, NW From North					ASPEN STREET, NW From East					4TH STREET, NW From South					ASPEN STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
12:00 PM	1	2	4	1	8	4	28	4	48	84	1	1	3	3	8	4	29	0	2	35	135
12:15 PM	3	8	5	3	19	3	31	1	86	121	3	3	0	2	8	1	28	1	1	31	179
12:30 PM	3	3	5	5	16	6	36	3	6	51	1	5	1	2	9	2	30	1	1	34	110
12:45 PM	1	2	3	3	9	0	30	4	8	42	0	4	2	0	6	2	33	0	20	55	112
<b>Total</b>	<b>8</b>	<b>15</b>	<b>17</b>	<b>12</b>	<b>52</b>	<b>13</b>	<b>125</b>	<b>12</b>	<b>148</b>	<b>298</b>	<b>5</b>	<b>13</b>	<b>6</b>	<b>7</b>	<b>31</b>	<b>9</b>	<b>120</b>	<b>2</b>	<b>24</b>	<b>155</b>	<b>536</b>
01:00 PM	4	10	6	5	25	5	31	2	35	73	1	4	1	10	16	3	35	1	4	43	157
01:15 PM	2	8	8	1	19	7	32	1	2	42	2	3	0	1	6	1	35	1	2	39	106
01:30 PM	2	6	3	2	13	4	22	1	3	30	1	1	0	0	2	1	29	0	2	32	77
01:45 PM	3	2	5	4	14	2	25	2	2	31	0	4	0	3	7	1	37	1	0	39	91
<b>Total</b>	<b>11</b>	<b>26</b>	<b>22</b>	<b>12</b>	<b>71</b>	<b>18</b>	<b>110</b>	<b>6</b>	<b>42</b>	<b>176</b>	<b>4</b>	<b>12</b>	<b>1</b>	<b>14</b>	<b>31</b>	<b>6</b>	<b>136</b>	<b>3</b>	<b>8</b>	<b>153</b>	<b>431</b>
02:00 PM	2	2	4	1	9	4	33	3	3	43	1	3	3	1	8	1	35	1	3	40	100
02:15 PM	2	7	3	3	15	6	28	0	4	38	3	3	1	0	7	3	35	0	2	40	100
02:30 PM	2	9	4	0	15	2	28	5	6	41	1	2	3	6	12	2	34	4	1	41	109
02:45 PM	1	4	7	0	12	4	27	4	2	37	0	4	1	2	7	2	40	2	1	45	101
<b>Total</b>	<b>7</b>	<b>22</b>	<b>18</b>	<b>4</b>	<b>51</b>	<b>16</b>	<b>116</b>	<b>12</b>	<b>15</b>	<b>159</b>	<b>5</b>	<b>12</b>	<b>8</b>	<b>9</b>	<b>34</b>	<b>8</b>	<b>144</b>	<b>7</b>	<b>7</b>	<b>166</b>	<b>410</b>
03:00 PM	1	7	7	6	21	4	49	2	3	58	2	7	1	1	11	1	52	0	3	56	146
03:15 PM	3	10	5	3	21	4	53	0	7	64	0	5	3	1	9	2	43	2	1	48	142
03:30 PM	3	9	4	3	19	5	24	1	13	43	0	6	1	9	16	5	78	3	22	108	186
03:45 PM	0	10	7	6	23	3	41	8	31	83	2	8	3	3	16	4	68	3	68	143	265
<b>Total</b>	<b>7</b>	<b>36</b>	<b>23</b>	<b>18</b>	<b>84</b>	<b>16</b>	<b>167</b>	<b>11</b>	<b>54</b>	<b>248</b>	<b>4</b>	<b>26</b>	<b>8</b>	<b>14</b>	<b>52</b>	<b>12</b>	<b>241</b>	<b>8</b>	<b>94</b>	<b>355</b>	<b>739</b>
04:00 PM	3	8	7	10	28	5	44	2	25	76	2	9	0	2	13	5	61	1	10	77	194
04:15 PM	4	8	7	4	23	4	39	7	23	73	3	7	0	1	11	2	73	3	8	86	193
04:30 PM	4	7	12	5	28	7	35	2	3	47	0	3	3	1	7	1	58	1	5	65	147
04:45 PM	0	7	6	3	16	10	52	4	12	78	3	5	3	16	27	10	82	4	17	113	234
<b>Total</b>	<b>11</b>	<b>30</b>	<b>32</b>	<b>22</b>	<b>95</b>	<b>26</b>	<b>170</b>	<b>15</b>	<b>63</b>	<b>274</b>	<b>8</b>	<b>24</b>	<b>6</b>	<b>20</b>	<b>58</b>	<b>18</b>	<b>274</b>	<b>9</b>	<b>40</b>	<b>341</b>	<b>768</b>
05:00 PM	4	4	4	0	12	5	44	0	4	53	0	9	6	1	16	5	59	3	7	74	155
05:15 PM	3	9	13	2	27	6	38	2	9	55	6	5	4	6	21	6	66	1	4	77	180
05:30 PM	1	8	4	4	17	7	58	0	6	71	5	5	3	4	17	4	61	4	6	75	180
05:45 PM	2	10	2	7	21	7	38	2	8	55	1	13	4	4	22	6	65	3	3	77	175
<b>Total</b>	<b>10</b>	<b>31</b>	<b>23</b>	<b>13</b>	<b>77</b>	<b>25</b>	<b>178</b>	<b>4</b>	<b>27</b>	<b>234</b>	<b>12</b>	<b>32</b>	<b>17</b>	<b>15</b>	<b>76</b>	<b>21</b>	<b>251</b>	<b>11</b>	<b>20</b>	<b>303</b>	<b>690</b>

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS

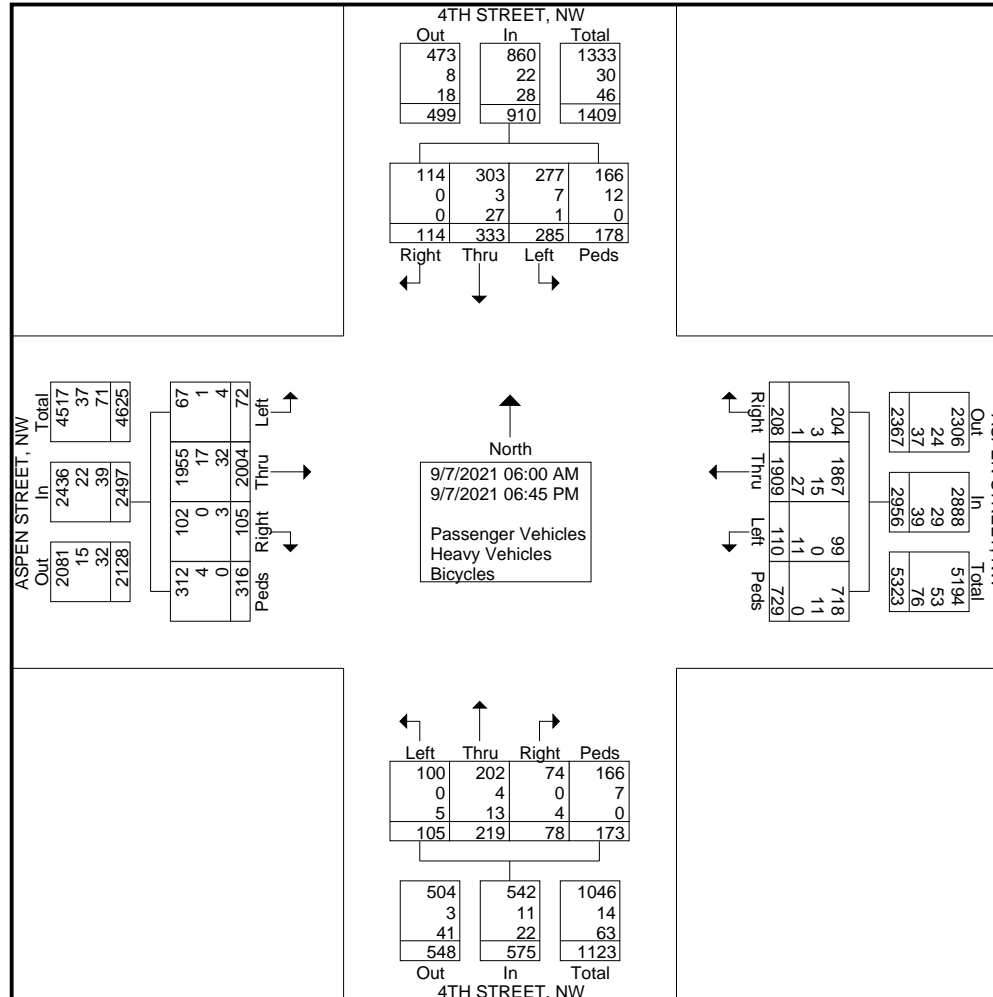
Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	4TH STREET, NW From North					ASPEN STREET, NW From East					4TH STREET, NW From South					ASPEN STREET, NW From West					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		
06:00 PM	1	11	7	0	19	15	48	5	12	80	5	3	1	4	13	2	41	2	4	49	161	
06:15 PM	2	15	13	9	39	9	39	1	11	60	2	7	2	2	13	2	48	2	6	58	170	
06:30 PM	1	4	4	1	10	5	29	1	10	45	2	2	4	2	10	2	42	1	2	47	112	
06:45 PM	1	7	3	4	15	1	28	2	5	36	0	4	1	1	6	0	24	0	1	25	82	
<b>Total</b>	<b>5</b>	<b>37</b>	<b>27</b>	<b>14</b>	<b>83</b>	<b>30</b>	<b>144</b>	<b>9</b>	<b>38</b>	<b>221</b>	<b>9</b>	<b>16</b>	<b>8</b>	<b>9</b>	<b>42</b>	<b>6</b>	<b>155</b>	<b>5</b>	<b>13</b>	<b>179</b>	<b>525</b>	
<b>Grand Total</b>	<b>114</b>	<b>333</b>	<b>285</b>	<b>178</b>	<b>910</b>	<b>208</b>	<b>1909</b>	<b>110</b>	<b>729</b>	<b>2956</b>	<b>78</b>	<b>219</b>	<b>105</b>	<b>173</b>	<b>575</b>	<b>105</b>	<b>2004</b>	<b>72</b>	<b>316</b>	<b>2497</b>	<b>6938</b>	
Apprch %	12.5	36.6	31.3	19.6		7	64.6	3.7	24.7		13.6	38.1	18.3	30.1		4.2	80.3	2.9	12.7			
Total %	1.6	4.8	4.1	2.6	13.1	3	27.5	1.6	10.5	42.6	1.1	3.2	1.5	2.5	8.3	1.5	28.9	1	4.6	36		
Passenger Vehicles																						
% Passenger Vehicles	100	91	97.2	93.3	94.5	98.1	97.8	90	98.5	97.7	94.9	92.2	95.2	96	94.3	97.1	97.6	93.1	98.7	97.6	96.9	
Heavy Vehicles	0	3	7	12	22	3	15	0	11	29	0	4	0	7	11	0	17	1	4	22	84	
% Heavy Vehicles	0	0.9	2.5	6.7	2.4	1.4	0.8	0	1.5	1	0	1.8	0	4	1.9	0	0.8	1.4	1.3	0.9	1.2	
Bicycles	0	27	1	0	28	1	27	11	0	39	4	13	5	0	22	3	32	4	0	39	128	
% Bicycles	0	8.1	0.4	0	3.1	0.5	1.4	10	0	1.3	5.1	5.9	4.8	0	3.8	2.9	1.6	5.6	0	1.6	1.8	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

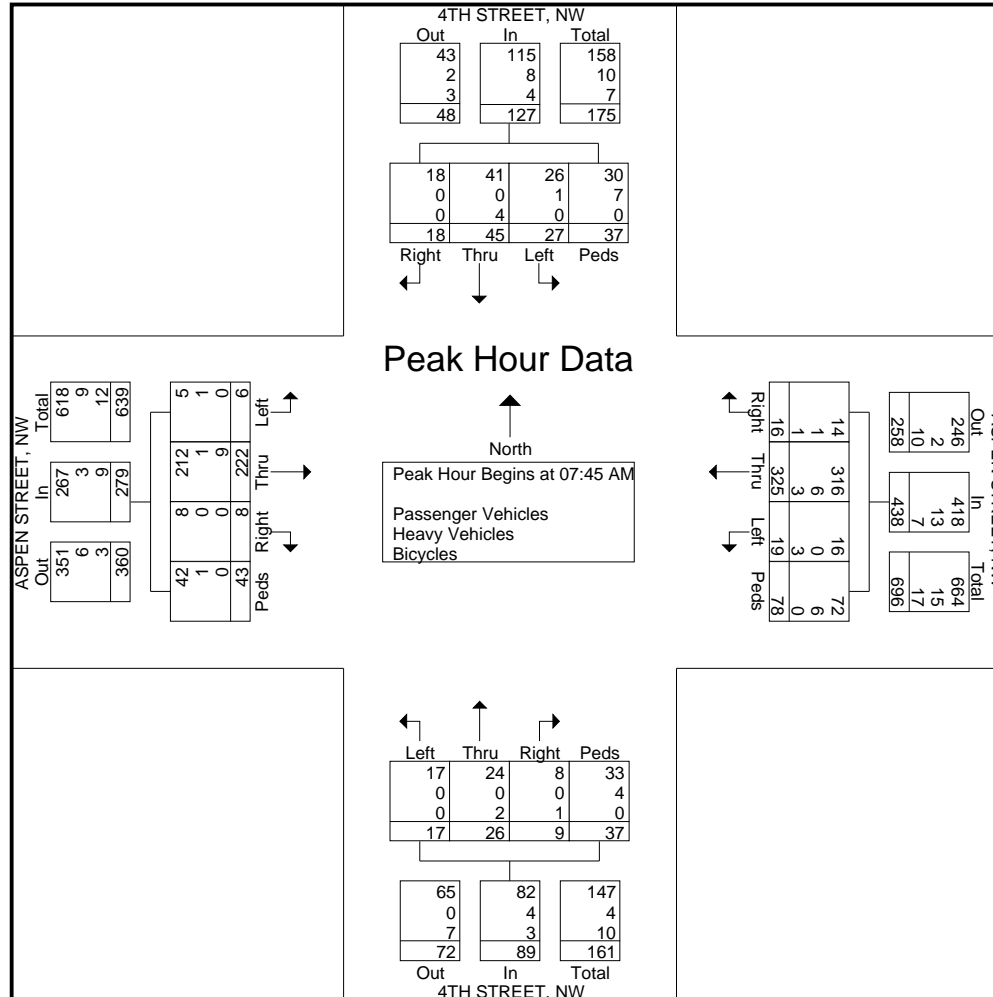
## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS

Start Time	4TH STREET, NW From North					ASPEN STREET, NW From East					4TH STREET, NW From South					ASPEN STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	4	13	7	5	29	5	97					7				3	52	1	5	61	227
08:00 AM	5	8	10	4	27	7	88	4	23	122	1	6	4	6	17	2	82	2	11	97	259
08:15 AM	3	15	6	11	35	1	65	5	20	91	4	7	5	20	36	2	49	2	20	73	237
08:30 AM	6	9	4	17	36	3	75	6	25	109	4	8	1	6	19	2	49	2	20	73	237
Total Volume	18	45	27	37	127	16	325	19	78	438	9	26	17	37	89	8	222	6	43	279	933
% App. Total	14.2	35.4	21.3	29.1		3.7	74.2	4.3	17.8		10.1	29.2	19.1	41.6		2.9	79.6	2.2	15.4		
PHF	.750	.750	.675	.544	.882	.571	.838	.792	.780	.898	.563	.813	.607	.463	.618	.667	.677	.750	.538	.719	.901
Passenger Vehicles	18	41	26	30	115	14	316	16	72	418	8	24	17	33	82	8	212	5	42	267	882
% Passenger Vehicles	100	91.1	96.3	81.1	90.6	87.5	97.2	84.2	92.3	95.4	88.9	92.3	100	89.2	92.1	100	95.5	83.3	97.7	95.7	94.5
Heavy Vehicles	0	0	1	7	8	1	6	0	6	13	0	0	0	4	4	0	1	1	1	3	28
% Heavy Vehicles	0	0	3.7	18.9	6.3	6.3	1.8	0	7.7	3.0	0	0	0	10.8	4.5	0	0.5	16.7	2.3	1.1	3.0
Bicycles	0	4	0	0	4	1	3	3	0	7	1	2	0	0	3	0	9	0	0	9	23
% Bicycles	0	8.9	0	0	3.1	6.3	0.9	15.8	0	1.6	11.1	7.7	0	0	3.4	0	4.1	0	0	3.2	2.5

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

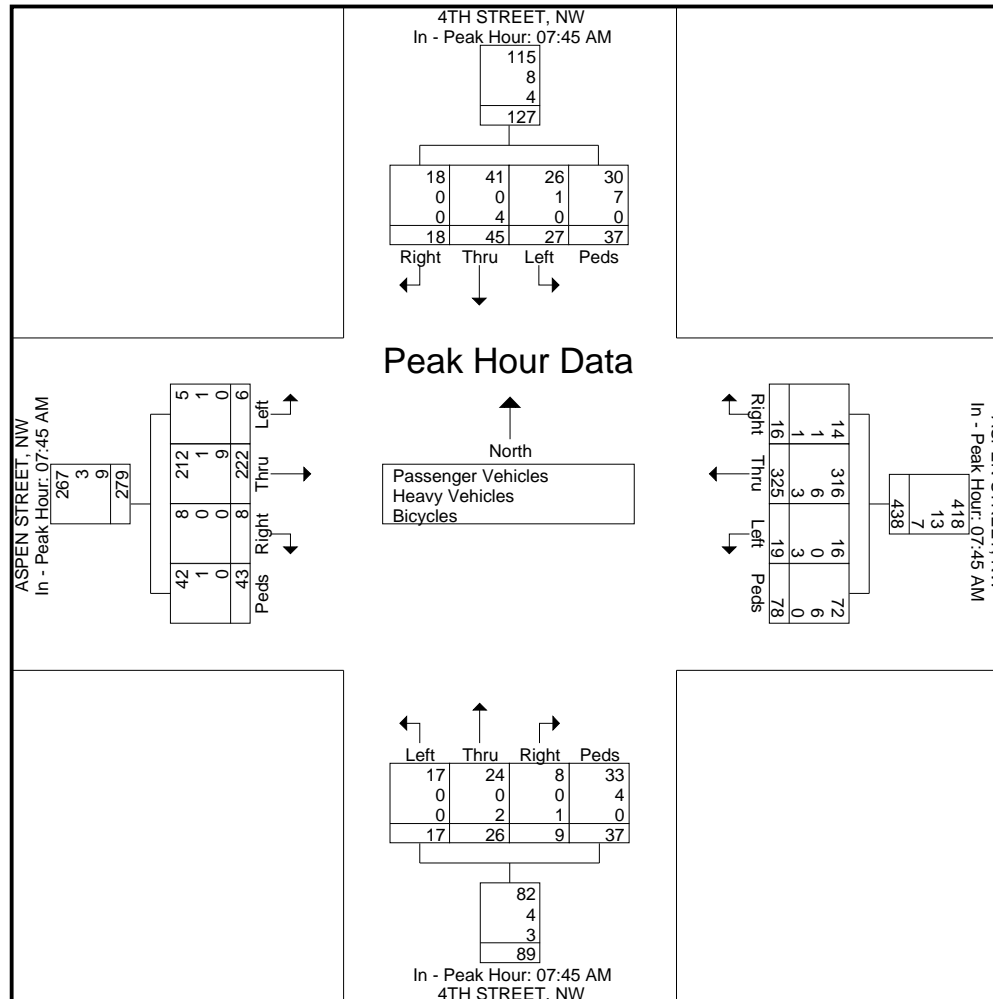
## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS

	4TH STREET, NW From North					ASPEN STREET, NW From East					4TH STREET, NW From South					ASPEN STREET, NW From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM					07:45 AM					07:45 AM					07:45 AM					
+0 mins.	4	13	7	5	29	5	97	4	10	116	0	5	7	5	17	1	39	1	7	48	
+15 mins.	5	8	10	4	27	7	88	4	23	122	1	6	4	6	17	3	52	1	5	61	
+30 mins.	3	15	6	11	35	1	65	5	20	91	4	7	5	20	36	2	82	2	11	97	
+45 mins.	6	9	4	17	36	3	75	6	25	109	4	8	1	6	19	2	49	2	20	73	
Total Volume	18	45	27	37	127	16	325	19	78	438	9	26	17	37	89	8	222	6	43	279	
% App. Total	14.2	35.4	21.3	29.1		3.7	74.2	4.3	17.8		10.1	29.2	19.1	41.6		2.9	79.6	2.2	15.4		
PHF	.750	.750	.675	.544	.882	.571	.838	.792	.780	.898	.563	.813	.607	.463	.618	.667	.677	.750	.538	.719	
Passenger Vehicles	18	41	26	30	115	14	316	16	72	418	8	24	17	33	82	8	212	5	42	267	
% Passenger Vehicles	100	91.1	96.3	81.1	90.6	87.5	97.2	84.2	92.3	95.4	88.9	92.3	100	89.2	92.1	100	95.5	83.3	97.7	95.7	
Heavy Vehicles	0	0	1	7	8	1	6	0	6	13	0	0	0	4	4	0	1	1	1	3	
% Heavy Vehicles	0	0	3.7	18.9	6.3	6.2	1.8	0	7.7	3	0	0	0	10.8	4.5	0	0.5	16.7	2.3	1.1	
Bicycles	0	4	0	0	4	1	3	3	0	7	1	2	0	0	3	0	9	0	0	9	
% Bicycles	0	8.9	0	0	3.1	6.2	0.9	15.8	0	1.6	11.1	7.7	0	0	3.4	0	4.1	0	0	3.2	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS

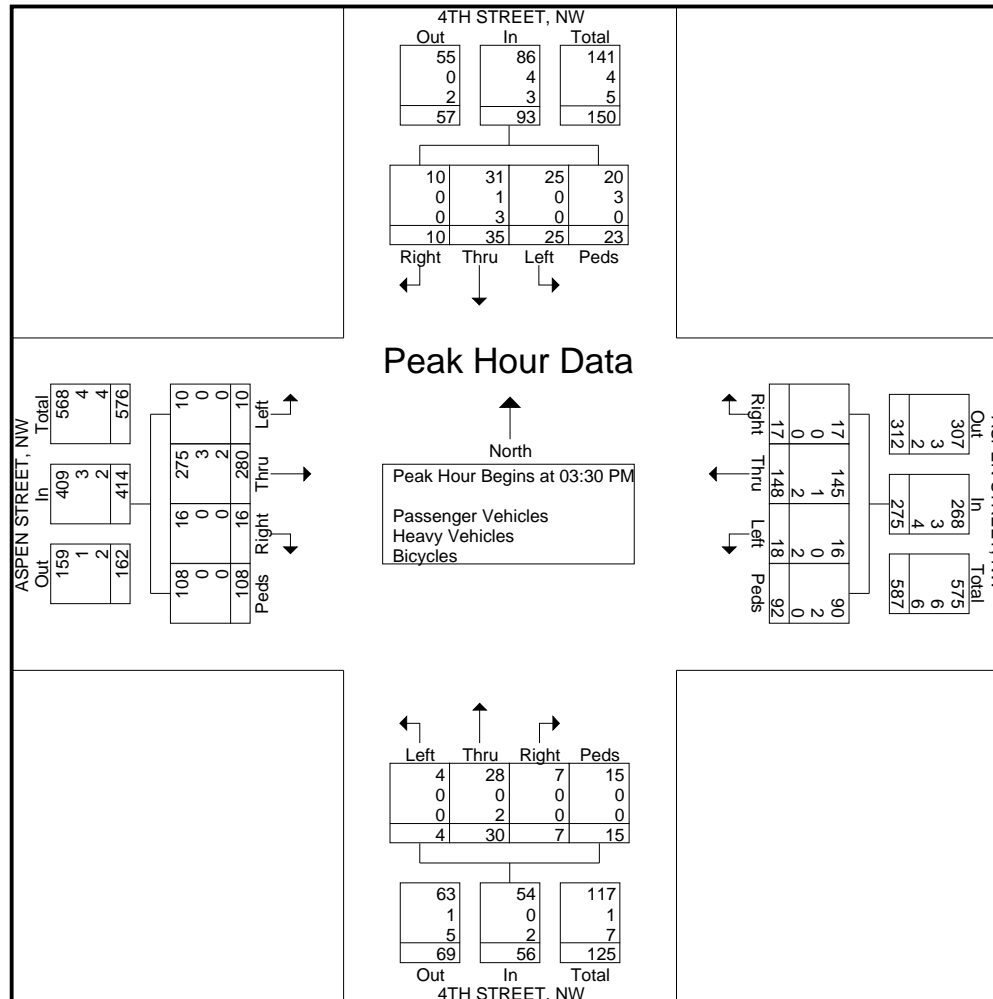
Start Time	4TH STREET, NW From North					ASPEN STREET, NW From East					4TH STREET, NW From South					ASPEN STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	3	9	4	3	19	5								9	16	5	78	3			
03:45 PM	0	10	7	6	23	3	41	8	31	83	2	8	3	3	16	4	68	3	68	143	265
04:00 PM	3	8	7	10	28	5	44	2	25	76	2	9	0	2	13	5	61	1	10	77	194
04:15 PM	4	8	7	4	23	4	39	7	23	73	3	7	0	1	11	2	73	3	8	86	193
Total Volume	10	35	25	23	93	17	148	18	92	275	7	30	4	15	56	16	280	10	108	414	838
% App. Total	10.8	37.6	26.9	24.7		6.2	53.8	6.5	33.5		12.5	53.6	7.1	26.8		3.9	67.6	2.4	26.1		
PHF	.625	.875	.893	.575	.830	.850	.841	.563	.742	.828	.583	.833	.333	.417	.875	.800	.897	.833	.397	.724	.791
Passenger Vehicles	10	31	25	20	86	17	145	16	90	268	7	28	4	15	54	16	275	10	108	409	817
% Passenger Vehicles	100	88.6	100	87.0	92.5	100	98.0	88.9	97.8	97.5	100	93.3	100	100	96.4	100	98.2	100	100	98.8	97.5
Heavy Vehicles	0	1	0	3	4	0	1	0	2	3	0	0	0	0	0	0	3	0	0	3	10
% Heavy Vehicles	0	2.9	0	13.0	4.3	0	0.7	0	2.2	1.1	0	0	0	0	0	0	1.1	0	0	0.7	1.2
Bicycles	0	3	0	0	3	0	2	2	0	4	0	2	0	0	2	0	2	0	0	2	11
% Bicycles	0	8.6	0	0	3.2	0	1.4	11.1	0	1.5	0	6.7	0	0	3.6	0	0.7	0	0	0.5	1.3



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

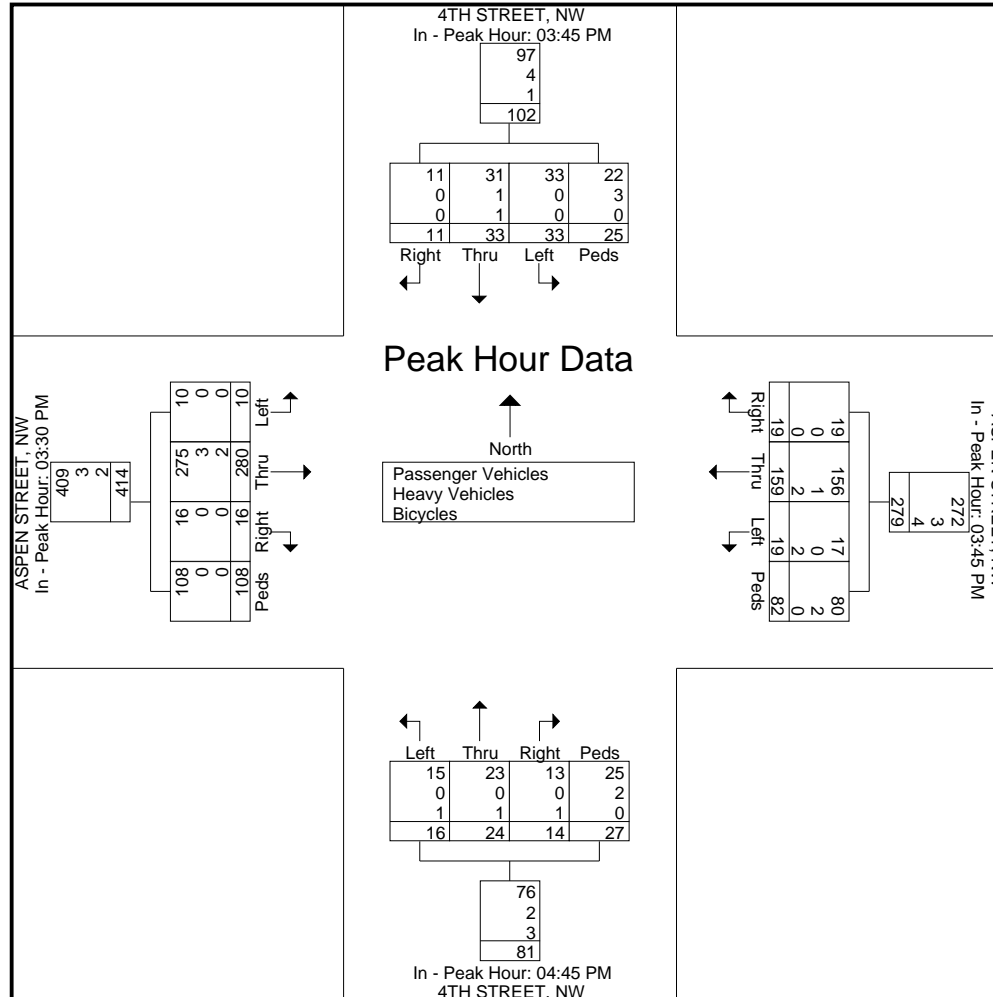
## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS

	4TH STREET, NW From North					ASPEN STREET, NW From East					4TH STREET, NW From South					ASPEN STREET, NW From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:45 PM					03:45 PM					04:45 PM					03:30 PM					
+0 mins.	0	10	7	6	23	3	41	8	31	83	3	5	3	16	27	5	78	3	22	108	
+15 mins.	3	8	7	10	28	5	44	2	25	76	0	9	6	1	16	4	68	3	68	143	
+30 mins.	4	8	7	4	23	4	39	7	23	73	6	5	4	6	21	5	61	1	10	77	
+45 mins.	4	7	12	5	28	7	35	2	3	47	5	5	3	4	17	2	73	3	8	86	
Total Volume	11	33	33	25	102	19	159	19	82	279	14	24	16	27	81	16	280	10	108	414	
% App. Total	10.8	32.4	32.4	24.5		6.8	57	6.8	29.4		17.3	29.6	19.8	33.3		3.9	67.6	2.4	26.1		
PHF	.688	.825	.688	.625	.911	.679	.903	.594	.661	.840	.583	.667	.667	.422	.750	.800	.897	.833	.397	.724	
Passenger Vehicles	11	31	33	22	97	19	156	17	80	272	13	23	15	25	76	16	275	10	108	409	
% Passenger Vehicles	100	93.9	100	88	95.1	100	98.1	89.5	97.6	97.5	92.9	95.8	93.8	92.6	93.8	100	98.2	100	100	98.8	
Heavy Vehicles	0	1	0	3	4	0	1	0	2	3	0	0	0	2	2	0	3	0	0	0	3
% Heavy Vehicles	0	3	0	12	3.9	0	0.6	0	2.4	1.1	0	0	0	7.4	2.5	0	1.1	0	0	0	0.7
Bicycles	0	1	0	0	1	0	2	2	0	4	1	1	1	0	3	0	2	0	0	0	2
% Bicycles	0	3	0	0	1	0	1.3	10.5	0	1.4	7.1	4.2	6.2	0	3.7	0	0.7	0	0	0	0.5

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## 4TH STREET, NW AND ASPEN STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateg.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	BLAIR ROAD, NW From Northwest				BLAIR ROAD, NW From Southeast				WHITTIER STREET, NW From West				Int. Total
	Hard Right	Thru	Peds	App. Total	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	
06:00 AM	0	57	0	57	35	4	0	39	1	0	0	1	97
06:15 AM	0	73	0	73	39	1	0	40	0	0	0	0	113
06:30 AM	0	87	0	87	59	8	0	67	1	0	0	1	155
06:45 AM	0	64	0	64	75	4	0	79	2	0	0	2	145
Total	0	281	0	281	208	17	0	225	4	0	0	4	510
07:00 AM	0	112	0	112	73	8	0	81	1	0	3	4	197
07:15 AM	0	131	0	131	70	15	0	85	4	0	0	4	220
07:30 AM	0	114	0	114	101	24	0	125	11	0	2	13	252
07:45 AM	0	136	0	136	95	26	0	121	11	3	2	16	273
Total	0	493	0	493	339	73	0	412	27	3	7	37	942
08:00 AM	0	133	0	133	112	27	0	139	19	0	4	23	295
08:15 AM	0	132	0	132	104	25	0	129	18	0	1	19	280
08:30 AM	1	122	0	123	98	21	0	119	12	2	3	17	259
08:45 AM	0	100	0	100	97	15	0	112	16	0	1	17	229
Total	1	487	0	488	411	88	0	499	65	2	9	76	1063
09:00 AM	0	91	0	91	84	9	0	93	7	2	1	10	194
09:15 AM	0	82	0	82	63	8	0	71	5	0	2	7	160
09:30 AM	0	83	0	83	67	7	0	74	6	1	2	9	166
09:45 AM	0	64	0	64	71	8	0	79	4	0	0	4	147
Total	0	320	0	320	285	32	0	317	22	3	5	30	667
10:00 AM	0	72	0	72	83	8	0	91	5	1	2	8	171
10:15 AM	0	76	0	76	80	10	0	90	6	0	0	6	172
10:30 AM	0	79	0	79	73	5	0	78	6	0	1	7	164
10:45 AM	0	79	0	79	74	4	0	78	6	0	1	7	164
Total	0	306	0	306	310	27	0	337	23	1	4	28	671
11:00 AM	0	74	0	74	75	8	0	83	7	2	3	12	169
11:15 AM	2	79	0	81	78	7	0	85	5	1	3	9	175
11:30 AM	0	91	0	91	76	6	0	82	12	3	3	18	191
11:45 AM	0	83	0	83	80	7	0	87	9	0	1	10	180
Total	2	327	0	329	309	28	0	337	33	6	10	49	715

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	BLAIR ROAD, NW From Northwest				BLAIR ROAD, NW From Southeast				WHITTIER STREET, NW From West				Int. Total
	Hard Right	Thru	Peds	App. Total	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	
12:00 PM	0	65	0	65	74	6	0	80	0	1	1	2	147
12:15 PM	0	77	0	77	88	4	0	92	9	1	0	10	179
12:30 PM	0	85	0	85	112	10	0	122	7	0	1	8	215
12:45 PM	0	103	0	103	88	12	0	100	6	1	0	7	210
Total	0	330	0	330	362	32	0	394	22	3	2	27	751
01:00 PM	1	83	0	84	90	9	0	99	6	0	0	6	189
01:15 PM	1	80	0	81	90	10	0	100	4	2	1	7	188
01:30 PM	0	79	0	79	85	6	0	91	5	1	0	6	176
01:45 PM	0	75	0	75	105	8	0	113	2	0	1	3	191
Total	2	317	0	319	370	33	0	403	17	3	2	22	744
02:00 PM	0	93	0	93	120	7	0	127	8	3	0	11	231
02:15 PM	1	83	0	84	106	10	0	116	15	1	2	18	218
02:30 PM	0	93	0	93	112	11	0	123	2	0	1	3	219
02:45 PM	0	114	0	114	111	10	0	121	4	1	2	7	242
Total	1	383	0	384	449	38	0	487	29	5	5	39	910
03:00 PM	0	80	0	80	124	11	0	135	9	0	1	10	225
03:15 PM	0	91	0	91	137	9	0	146	6	2	0	8	245
03:30 PM	0	115	0	115	139	12	0	151	24	1	3	28	294
03:45 PM	0	94	0	94	123	13	0	136	32	1	1	34	264
Total	0	380	0	380	523	45	0	568	71	4	5	80	1028
04:00 PM	0	87	0	87	139	9	0	148	16	7	1	24	259
04:15 PM	0	81	0	81	146	14	0	160	15	2	1	18	259
04:30 PM	0	87	0	87	137	11	0	148	14	1	1	16	251
04:45 PM	0	94	0	94	165	15	0	180	14	1	4	19	293
Total	0	349	0	349	587	49	0	636	59	11	7	77	1062
05:00 PM	0	103	0	103	155	11	0	166	16	2	0	18	287
05:15 PM	1	116	0	117	154	20	0	174	16	3	3	22	313
05:30 PM	1	96	0	97	164	17	0	181	18	3	0	21	299
05:45 PM	0	75	0	75	165	37	0	202	12	5	2	19	296
Total	2	390	0	392	638	85	0	723	62	13	5	80	1195

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS

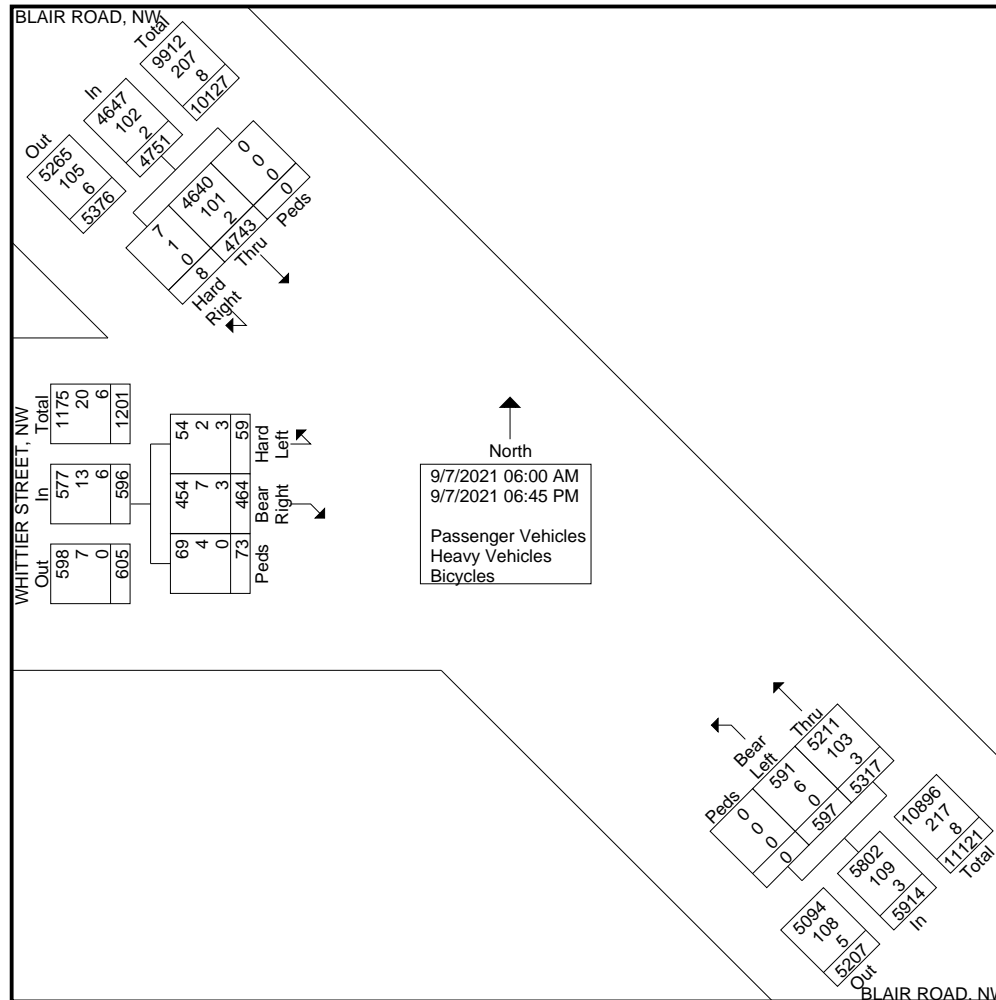
Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	BLAIR ROAD, NW From Northwest				BLAIR ROAD, NW From Southeast				WHITTIER STREET, NW From West				Int. Total
	Hard Right	Thru	Peds	App. Total	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	
06:00 PM	0	77	0	77	161	22	0	183	8	2	2	12	272
06:15 PM	0	103	0	103	140	18	0	158	9	2	5	16	277
06:30 PM	0	112	0	112	105	6	0	111	6	1	2	9	232
06:45 PM	0	88	0	88	120	4	0	124	7	0	3	10	222
Total	0	380	0	380	526	50	0	576	30	5	12	47	1003
Grand Total	8	4743	0	4751	5317	597	0	5914	464	59	73	596	11261
Apprch %	0.2	99.8	0		89.9	10.1	0		77.9	9.9	12.2		
Total %	0.1	42.1	0	42.2	47.2	5.3	0	52.5	4.1	0.5	0.6	5.3	
Passenger Vehicles	7	4640	0	4647	5211	591	0	5802	454	54	69	577	11026
% Passenger Vehicles	87.5	97.8	0	97.8	98	99	0	98.1	97.8	91.5	94.5	96.8	97.9
Heavy Vehicles	1	101	0	102	103	6	0	109	7	2	4	13	224
% Heavy Vehicles	12.5	2.1	0	2.1	1.9	1	0	1.8	1.5	3.4	5.5	2.2	2
Bicycles	0	2	0	2	3	0	0	3	3	3	0	6	11
% Bicycles	0	0	0	0	0.1	0	0	0.1	0.6	5.1	0	1	0.1

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS

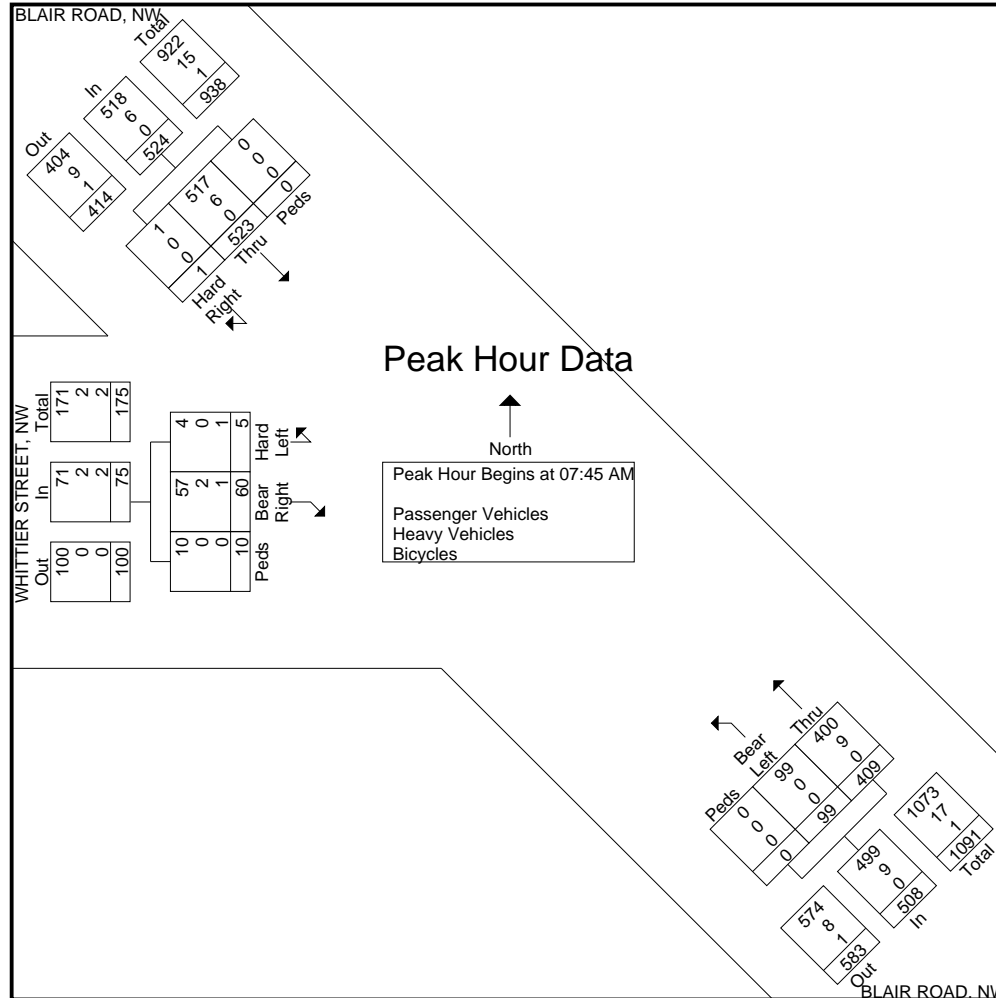
Start Time	BLAIR ROAD, NW From Northwest				BLAIR ROAD, NW From Southeast				WHITTIER STREET, NW From West				Int. Total
	Hard Right	Thru	Peds	App. Total	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	<b>136</b>	0	<b>136</b>	95	26	0	121	11	<b>3</b>	2	16	273
08:00 AM	0	133	0	133	<b>112</b>	<b>27</b>	0	<b>139</b>	<b>19</b>	0	<b>4</b>	<b>23</b>	<b>295</b>
08:15 AM	0	132	0	132	104	25	0	129	18	0	1	19	280
08:30 AM	<b>1</b>	122	0	123	98	21	0	119	12	2	3	17	259
Total Volume	1	523	0	524	409	99	0	508	60	5	10	75	1107
% App. Total	0.2	99.8	0		80.5	19.5	0		80	6.7	13.3		
PHF	.250	.961	.000	.963	.913	.917	.000	.914	.789	.417	.625	.815	.938
Passenger Vehicles	1	517	0	518	400	99	0	499	57	4	10	71	1088
% Passenger Vehicles	100	98.9	0	98.9	97.8	100	0	98.2	95.0	80.0	100	94.7	98.3
Heavy Vehicles	0	6	0	6	9	0	0	9	2	0	0	2	17
% Heavy Vehicles	0	1.1	0	1.1	2.2	0	0	1.8	3.3	0	0	2.7	1.5
Bicycles	0	0	0	0	0	0	0	0	1	1	0	2	2
% Bicycles	0	0	0	0	0	0	0	0	1.7	20.0	0	2.7	0.2



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS

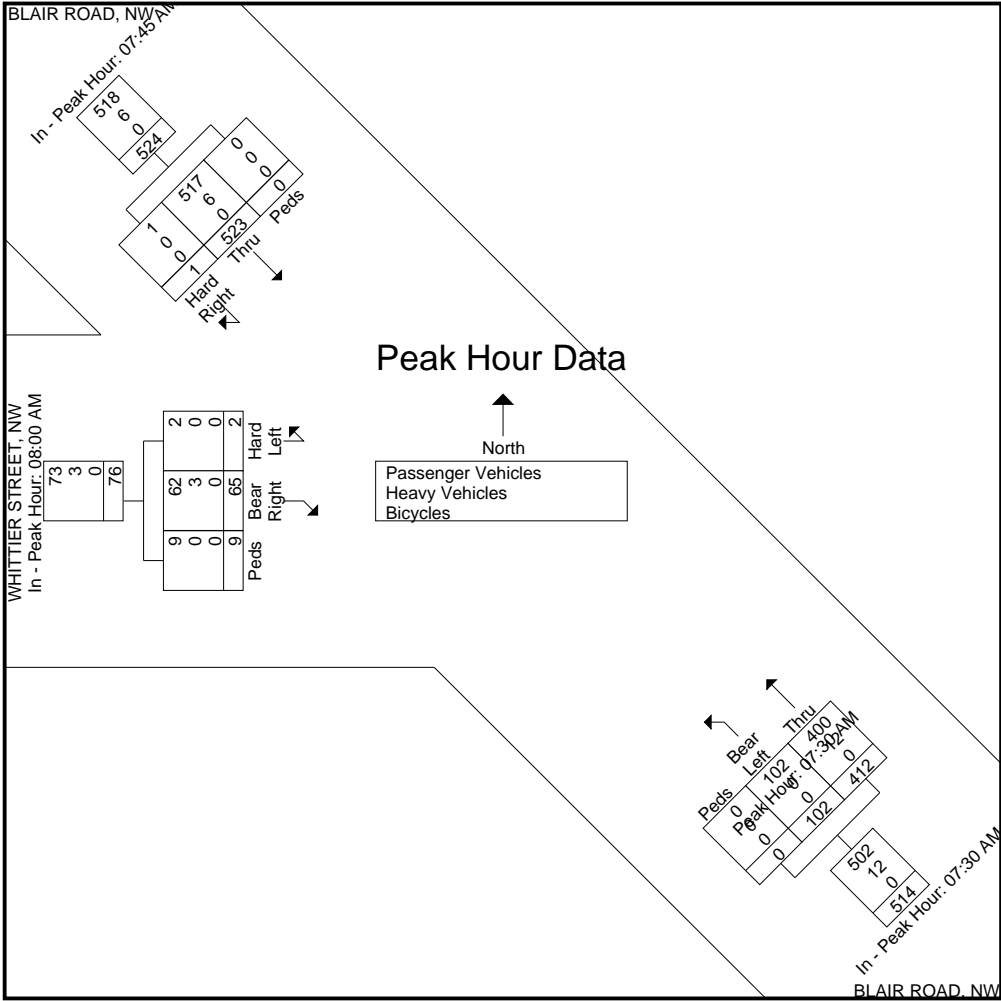




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS

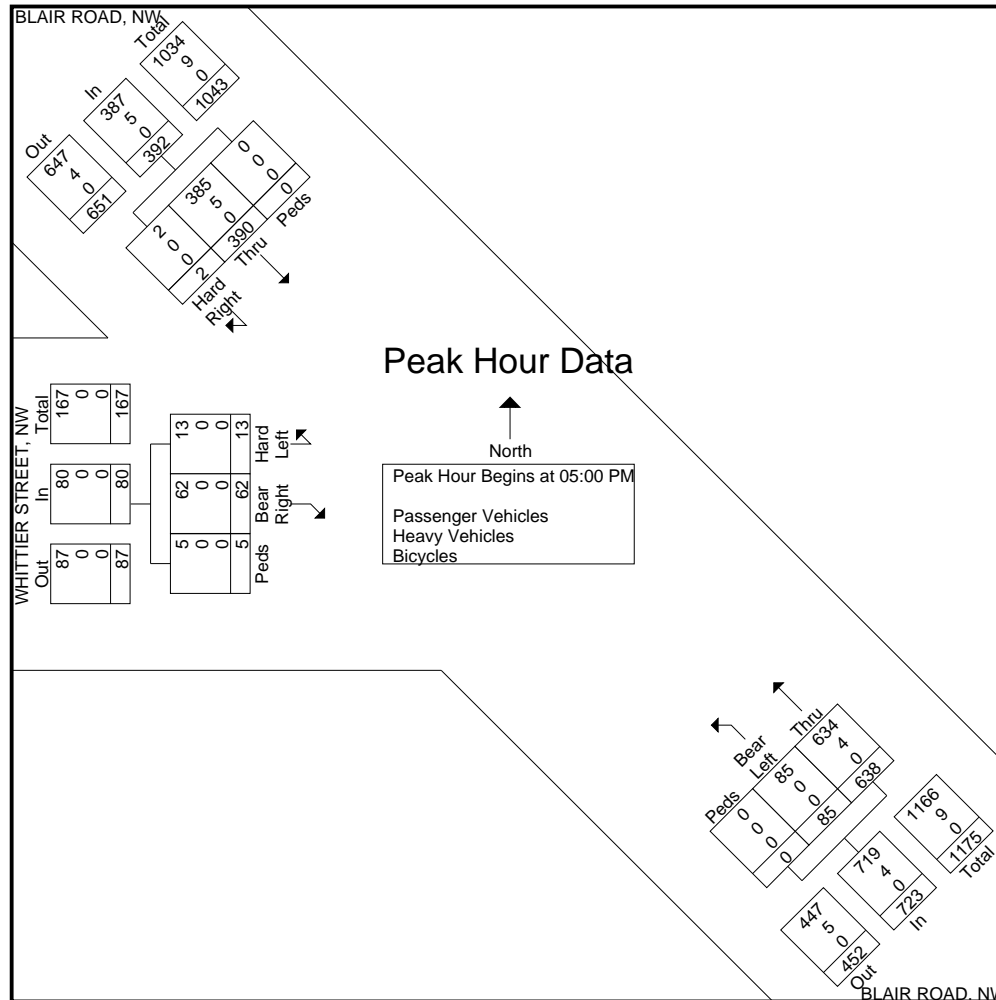




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS

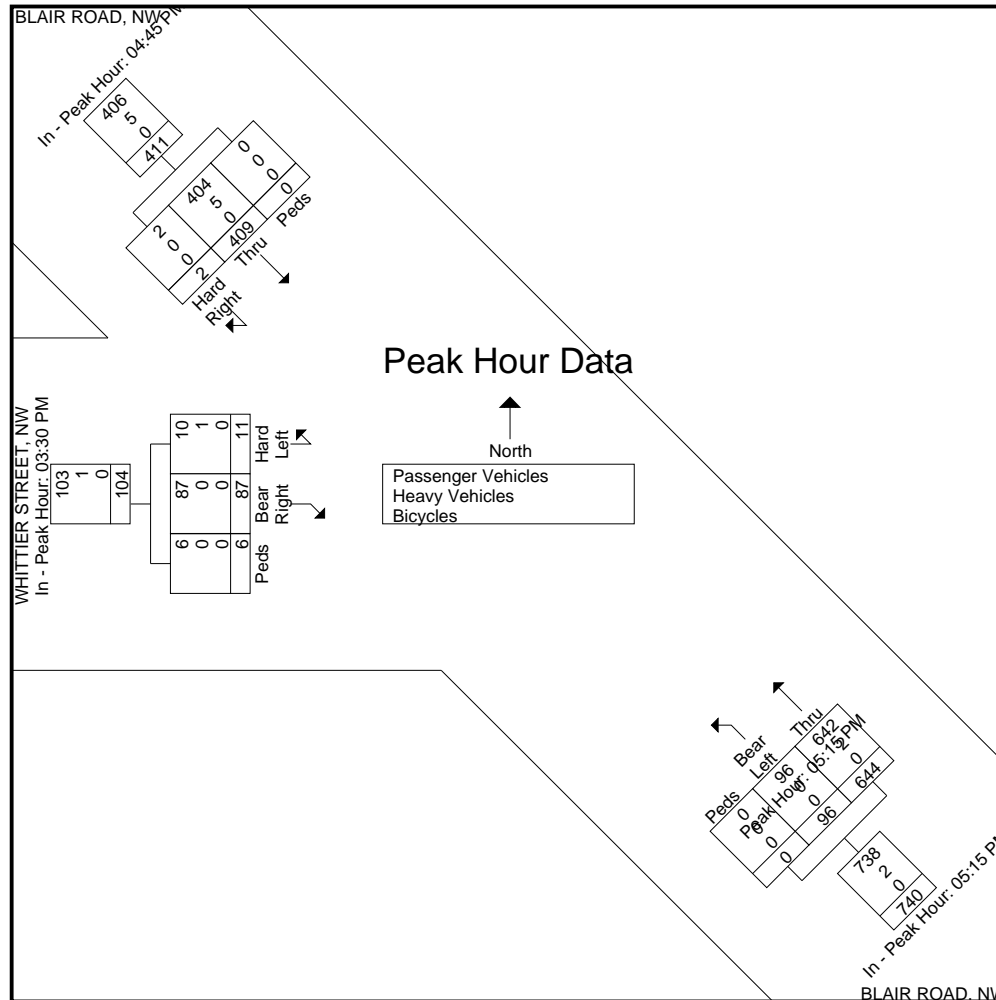




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## BLAIR ROAD, NW AND WHITTIER STREET, NW PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	4TH STREET, NW From North				VAN BUREN STREET, NW From East				VAN BUREN STREET, NW From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
06:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	1
06:15 AM	0	2	0	2	0	0	1	1	0	1	0	1	4
06:30 AM	3	4	0	7	0	0	0	0	0	0	1	1	8
06:45 AM	0	3	3	6	0	0	1	1	0	0	1	1	8
Total	3	9	4	16	0	0	2	2	0	1	2	3	21
07:00 AM	2	5	2	9	0	0	0	0	0	0	0	0	9
07:15 AM	1	1	1	3	0	0	1	1	1	0	0	1	5
07:30 AM	3	5	1	9	0	0	1	1	0	0	1	1	11
07:45 AM	7	10	2	19	0	2	3	5	2	0	6	8	32
Total	13	21	6	40	0	2	5	7	3	0	7	10	57
08:00 AM	7	7	6	20	0	2	1	3	1	0	5	6	29
08:15 AM	6	15	1	22	0	1	5	6	1	0	2	3	31
08:30 AM	8	9	6	23	0	0	15	15	1	0	11	12	50
08:45 AM	1	5	8	14	0	0	11	11	1	1	10	12	37
Total	22	36	21	79	0	3	32	35	4	1	28	33	147
09:00 AM	5	8	3	16	0	0	6	6	0	0	9	9	31
09:15 AM	2	5	5	12	0	0	1	1	0	0	2	2	15
09:30 AM	5	5	6	16	0	1	1	2	0	0	3	3	21
09:45 AM	1	3	2	6	0	0	1	1	0	0	5	5	12
Total	13	21	16	50	0	1	9	10	0	0	19	19	79
10:00 AM	1	3	1	5	0	1	2	3	1	0	1	2	10
10:15 AM	4	9	2	15	0	0	1	1	0	0	1	1	17
10:30 AM	2	5	3	10	0	0	0	0	2	0	1	3	13
10:45 AM	3	3	1	7	0	0	1	1	0	0	0	0	8
Total	10	20	7	37	0	1	4	5	3	0	3	6	48
11:00 AM	2	3	1	6	2	0	5	7	0	0	1	1	14
11:15 AM	6	10	9	25	0	2	3	5	0	0	4	4	34
11:30 AM	1	5	2	8	0	0	0	0	1	0	2	3	11
11:45 AM	1	3	0	4	0	0	2	2	0	0	0	0	6
Total	10	21	12	43	2	2	10	14	1	0	7	8	65
12:00 PM	4	12	0	16	0	0	0	0	0	0	0	0	16
12:15 PM	1	6	1	8	0	0	1	1	0	0	0	0	9



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	4TH STREET, NW From North				VAN BUREN STREET, NW From East				VAN BUREN STREET, NW From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
12:30 PM	1	6	0	7	0	0	1	1	0	0	0	0	8
12:45 PM	6	4	1	11	0	0	1	1	0	0	0	0	12
Total	12	28	2	42	0	0	3	3	0	0	0	0	45
01:00 PM	2	6	3	11	0	0	6	6	0	0	3	3	20
01:15 PM	2	9	0	11	0	0	0	0	1	1	0	2	13
01:30 PM	6	3	2	11	0	0	0	0	0	0	0	0	11
01:45 PM	1	3	1	5	0	0	0	0	0	0	0	0	5
Total	11	21	6	38	0	0	6	6	1	1	3	5	49
02:00 PM	5	4	3	12	0	0	2	2	0	0	2	2	16
02:15 PM	4	5	2	11	0	0	0	0	1	0	2	3	14
02:30 PM	6	10	5	21	0	0	2	2	0	0	1	1	24
02:45 PM	0	5	0	5	0	0	0	0	0	0	1	1	6
Total	15	24	10	49	0	0	4	4	1	0	6	7	60
03:00 PM	4	7	4	15	0	0	0	0	0	0	2	2	17
03:15 PM	10	11	0	21	0	0	0	0	0	0	1	1	22
03:30 PM	3	8	16	27	0	1	10	11	2	0	27	29	67
03:45 PM	9	13	2	24	0	0	5	5	2	0	20	22	51
Total	26	39	22	87	0	1	15	16	4	0	50	54	157
04:00 PM	5	8	14	27	0	0	6	6	0	0	8	8	41
04:15 PM	2	8	5	15	0	1	0	1	0	0	6	6	22
04:30 PM	9	6	4	19	0	0	0	0	0	0	1	1	20
04:45 PM	8	16	3	27	0	1	2	3	0	0	2	2	32
Total	24	38	26	88	0	2	8	10	0	0	17	17	115
05:00 PM	3	7	4	14	1	0	3	4	1	2	1	4	22
05:15 PM	5	10	4	19	1	1	2	4	1	0	7	8	31
05:30 PM	3	11	3	17	0	1	2	3	0	0	6	6	26
05:45 PM	4	13	5	22	0	0	4	4	0	0	7	7	33
Total	15	41	16	72	2	2	11	15	2	2	21	25	112
06:00 PM	6	9	4	19	0	0	9	9	2	2	3	7	35
06:15 PM	4	11	2	17	2	0	1	3	0	0	4	4	24
06:30 PM	4	6	5	15	0	0	3	3	0	0	2	2	20
06:45 PM	1	4	4	9	0	0	2	2	1	0	2	3	14
Total	15	30	15	60	2	0	15	17	3	2	11	16	93

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS

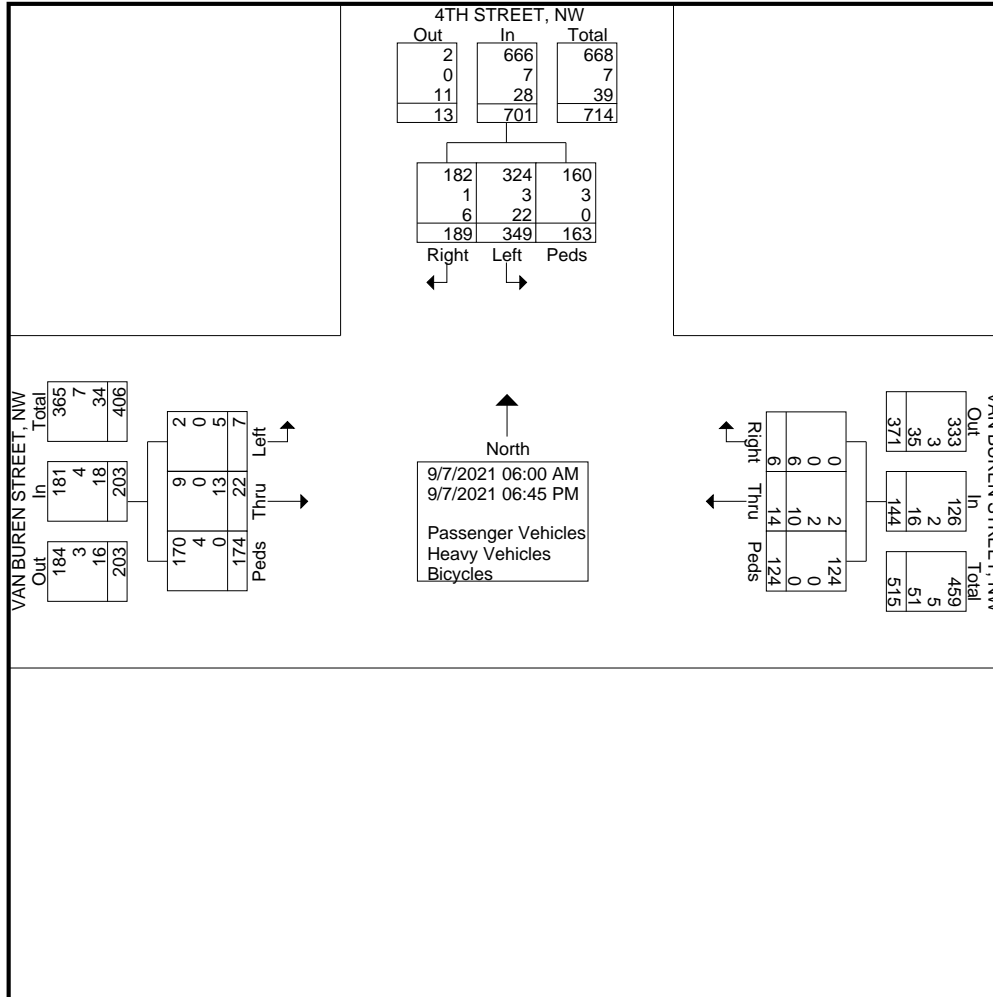
Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

	4TH STREET, NW From North				VAN BUREN STREET, NW From East				VAN BUREN STREET, NW From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Grand Total	189	349	163	701	6	14	124	144	22	7	174	203	1048
Apprch %	27	49.8	23.3		4.2	9.7	86.1		10.8	3.4	85.7		
Total %	18	33.3	15.6	66.9	0.6	1.3	11.8	13.7	2.1	0.7	16.6	19.4	
Passenger Vehicles	182	324	160	666	0	2	124	126	9	2	170	181	973
% Passenger Vehicles	96.3	92.8	98.2	95	0	14.3	100	87.5	40.9	28.6	97.7	89.2	92.8
Heavy Vehicles	1	3	3	7	0	2	0	2	0	0	4	4	13
% Heavy Vehicles	0.5	0.9	1.8	1	0	14.3	0	1.4	0	0	2.3	2	1.2
Bicycles	6	22	0	28	6	10	0	16	13	5	0	18	62
% Bicycles	3.2	6.3	0	4	100	71.4	0	11.1	59.1	71.4	0	8.9	5.9

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

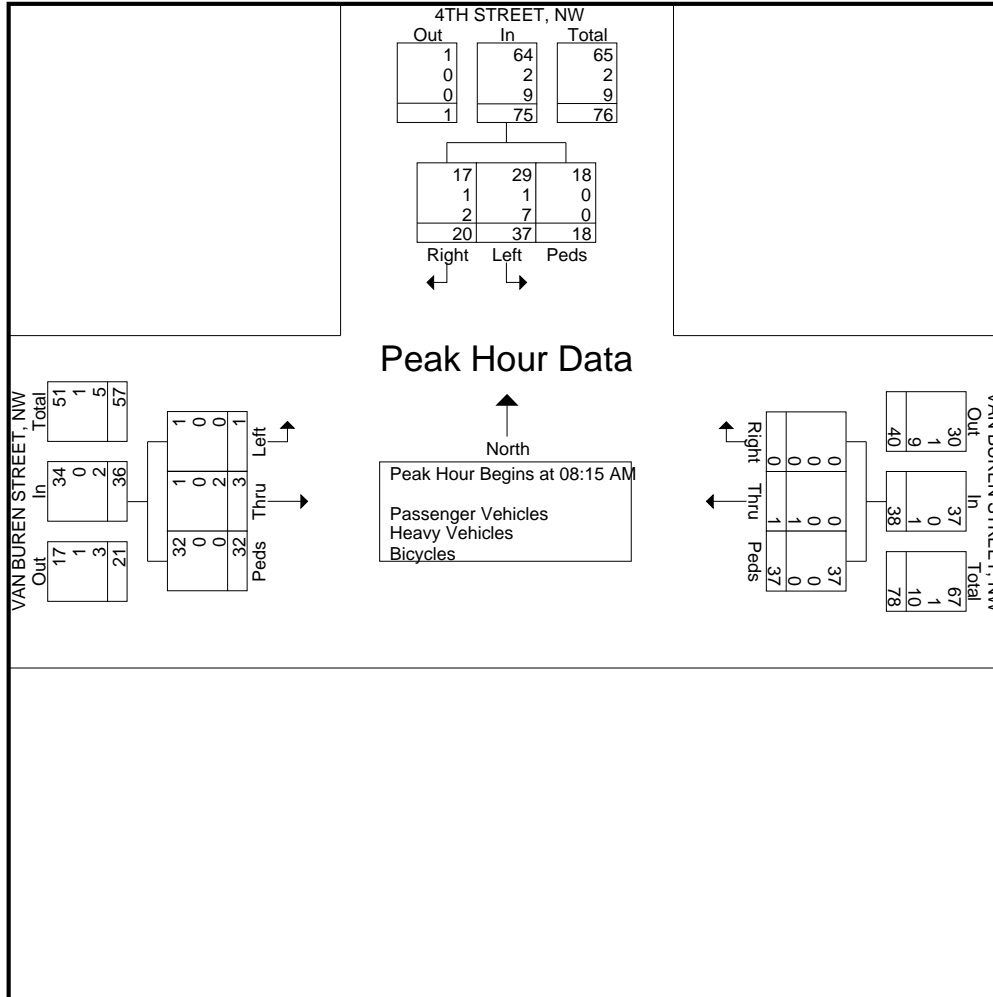
## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	4TH STREET, NW From North				VAN BUREN STREET, NW From East				VAN BUREN STREET, NW From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:15 AM													
08:15 AM	6	15	1	22	0	1	5	6	1	0	2	3	31
08:30 AM	8	9	6	23	0	0	15	15	1	0	11	12	50
08:45 AM	1	5	8	14	0	0	11	11	1	1	10	12	37
09:00 AM	5	8	3	16	0	0	6	6	0	0	9	9	31
Total Volume	20	37	18	75	0	1	37	38	3	1	32	36	149
% App. Total	26.7	49.3	24		0	2.6	97.4		8.3	2.8	88.9		
PHF	.625	.617	.563	.815	.000	.250	.617	.633	.750	.250	.727	.750	.745
Passenger Vehicles	17	29	18	64	0	0	37	37	1	1	32	34	135
% Passenger Vehicles	85.0	78.4	100	85.3	0	0	100	97.4	33.3	100	100	94.4	90.6
Heavy Vehicles	1	1	0	2	0	0	0	0	0	0	0	0	2
% Heavy Vehicles	5.0	2.7	0	2.7	0	0	0	0	0	0	0	0	1.3
Bicycles	2	7	0	9	0	1	0	1	2	0	0	2	12
% Bicycles	10.0	18.9	0	12.0	0	100	0	2.6	66.7	0	0	5.6	8.1

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

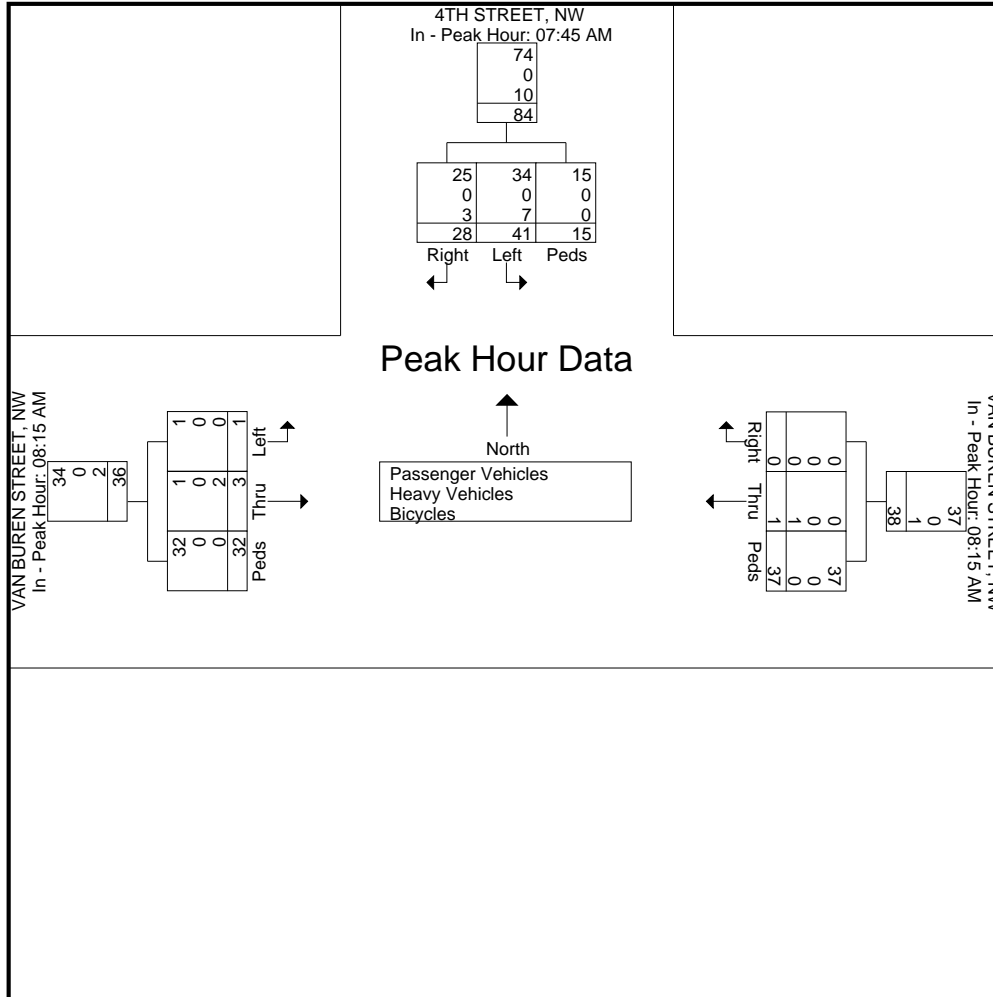
## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	4TH STREET, NW From North				VAN BUREN STREET, NW From East				VAN BUREN STREET, NW From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	07:45 AM				08:15 AM				08:15 AM				
+0 mins.	7	10	2	19	0	1	5	6	1	0	2	3	
+15 mins.	7	7	6	20	0	0	15	15	1	0	11	12	
+30 mins.	6	15	1	22	0	0	11	11	1	1	10	12	
+45 mins.	8	9	6	23	0	0	6	6	0	0	9	9	
Total Volume	28	41	15	84	0	1	37	38	3	1	32	36	
% App. Total	33.3	48.8	17.9		0	2.6	97.4		8.3	2.8	88.9		
PHF	.875	.683	.625	.913	.000	.250	.617	.633	.750	.250	.727	.750	
Passenger Vehicles	25	34	15	74	0	0	37	37	1	1	32	34	
% Passenger Vehicles	89.3	82.9	100	88.1	0	0	100	97.4	33.3	100	100	94.4	
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	3	7	0	10	0	1	0	1	2	0	0	2	
% Bicycles	10.7	17.1	0	11.9	0	100	0	2.6	66.7	0	0	5.6	

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS

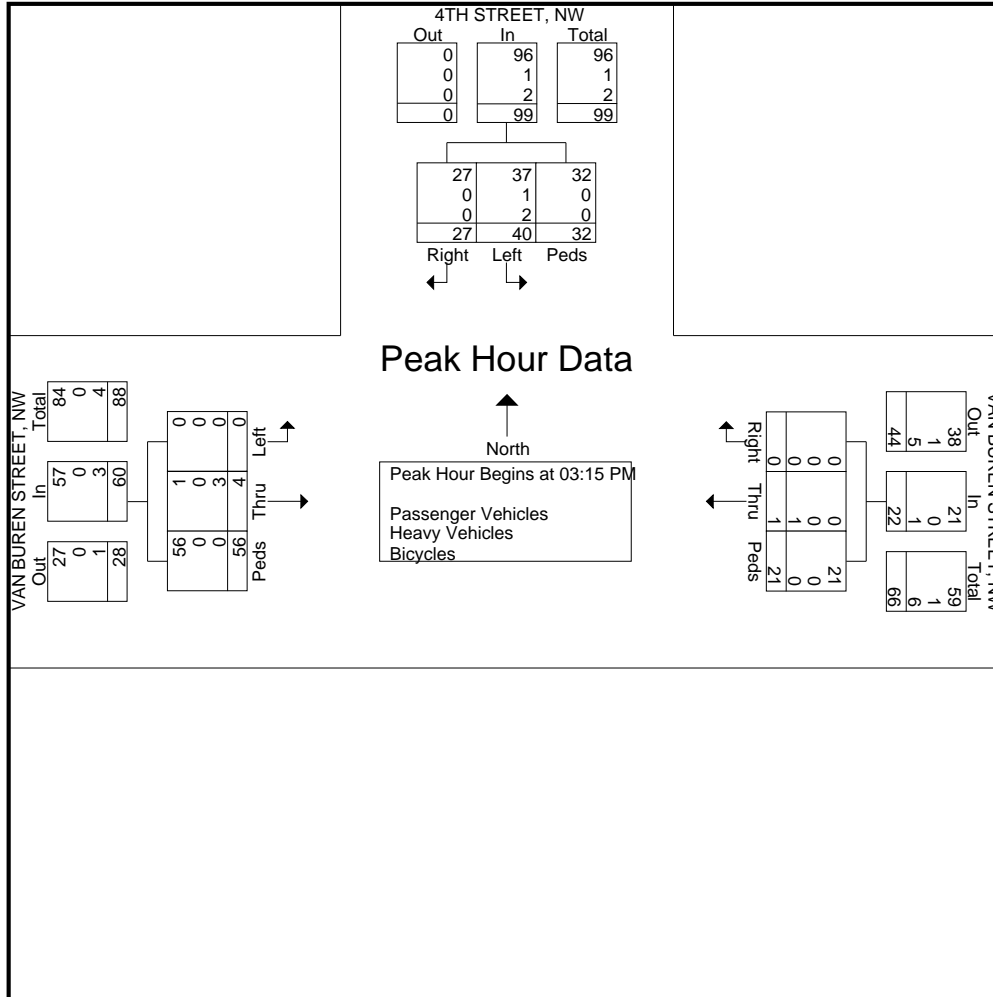
Start Time	4TH STREET, NW From North				VAN BUREN STREET, NW From East				VAN BUREN STREET, NW From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 03:15 PM													
03:15 PM	10	11	0	21	0	0	0	0	0	0	1	1	22
03:30 PM	3	8	16	27	0	1	10	11	2	0	27	29	67
03:45 PM	9	13	2	24	0	0	5	5	2	0	20	22	51
04:00 PM	5	8	14	27	0	0	6	6	0	0	8	8	41
Total Volume	27	40	32	99	0	1	21	22	4	0	56	60	181
% App. Total	27.3	40.4	32.3		0	4.5	95.5		6.7	0	93.3		
PHF	.675	.769	.500	.917	.000	.250	.525	.500	.500	.000	.519	.517	.675
Passenger Vehicles	27	37	32	96	0	0	21	21	1	0	56	57	174
% Passenger Vehicles	100	92.5	100	97.0	0	0	100	95.5	25.0	0	100	95.0	96.1
Heavy Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	0	2.5	0	1.0	0	0	0	0	0	0	0	0	0.6
Bicycles	0	2	0	2	0	1	0	1	3	0	0	3	6
% Bicycles	0	5.0	0	2.0	0	100	0	4.5	75.0	0	0	5.0	3.3



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

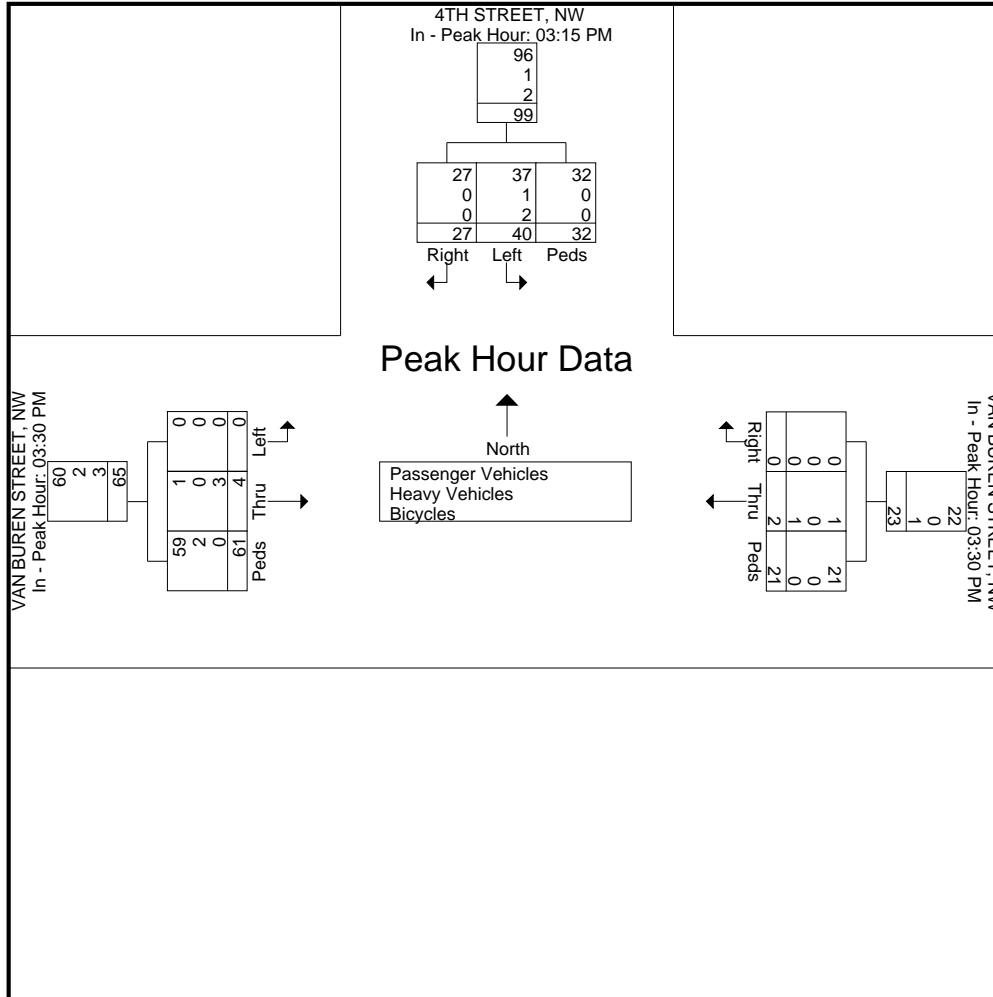
## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	4TH STREET, NW From North				VAN BUREN STREET, NW From East				VAN BUREN STREET, NW From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	03:15 PM				03:30 PM				03:30 PM				
+0 mins.	<b>10</b>	11	0	21	0	<b>1</b>	<b>10</b>	<b>11</b>	<b>2</b>	0	<b>27</b>	<b>29</b>	
+15 mins.	3	8	<b>16</b>	<b>27</b>	0	0	5	5	2	0	20	22	
+30 mins.	9	<b>13</b>	2	24	0	0	6	6	0	0	8	8	
+45 mins.	5	8	14	27	0	1	0	1	0	0	6	6	
Total Volume	27	40	32	99	0	2	21	23	4	0	61	65	
% App. Total	27.3	40.4	32.3		0	8.7	91.3		6.2	0	93.8		
PHF	.675	.769	.500	.917	.000	.500	.525	.523	.500	.000	.565	.560	
Passenger Vehicles	27	37	32	96	0	1	21	22	1	0	59	60	
% Passenger Vehicles	100	92.5	100	97	0	50	100	95.7	25	0	96.7	92.3	
Heavy Vehicles	0	1	0	1	0	0	0	0	0	0	2	2	
% Heavy Vehicles	0	2.5	0	1	0	0	0	0	0	0	3.3	3.1	
Bicycles	0	2	0	2	0	1	0	1	3	0	0	3	
% Bicycles	0	5	0	2	0	50	0	4.3	75	0	0	4.6	

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 4TH STREET AND VAN BUREN STREET, NW - PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles																				Int. Total
	3RD STREET, NW From North					VAN BUREN STREET, NW From East					3RD STREET, NW From South					VAN BUREN STREET, NW From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 AM	0	2	0	1	3	0	0	0	0	0	1	0	0	0	1	0	0	0	2	2	6
06:15 AM	0	1	0	0	1	0	0	1	0	1	1	0	0	0	1	2	0	0	4	6	9
06:30 AM	0	6	0	0	6	3	0	2	0	5	0	3	0	0	3	2	1	0	0	3	17
06:45 AM	0	5	1	1	7	0	0	5	1	6	3	6	0	4	13	1	0	1	8	10	36
Total	0	14	1	2	17	3	0	8	1	12	5	9	0	4	18	5	1	1	14	21	68
07:00 AM	0	6	0	2	8	3	0	9	1	13	0	6	0	3	9	5	0	0	3	8	38
07:15 AM	0	9	0	1	10	6	0	13	0	19	2	7	0	4	13	2	0	1	8	11	53
07:30 AM	0	26	2	2	30	9	0	23	2	34	3	9	0	2	14	8	0	0	4	12	90
07:45 AM	0	33	0	0	33	11	1	23	1	36	2	11	1	3	17	9	2	0	7	18	104
Total	0	74	2	5	81	29	1	68	4	102	7	33	1	12	53	24	2	1	22	49	285
08:00 AM	0	25	1	1	27	21	0	42	1	64	8	23	2	3	36	5	4	0	23	32	159
08:15 AM	0	23	1	6	30	13	0	42	4	59	19	34	0	3	56	12	3	0	9	24	169
08:30 AM	0	34	2	7	43	20	0	29	6	55	11	20	0	3	34	9	0	0	11	20	152
08:45 AM	0	20	3	1	24	4	0	19	0	23	11	16	0	5	32	3	1	0	13	17	96
Total	0	102	7	15	124	58	0	132	11	201	49	93	2	14	158	29	8	0	56	93	576
09:00 AM	0	11	0	1	12	6	0	4	0	10	8	15	0	1	24	1	5	0	9	15	61
09:15 AM	0	7	0	1	8	2	0	8	1	11	3	12	0	1	16	3	2	0	8	13	48
09:30 AM	0	9	0	0	9	3	0	3	0	6	5	13	0	3	21	4	1	1	7	13	49
09:45 AM	0	7	0	0	7	2	0	2	0	4	0	8	0	2	10	2	0	0	5	7	28
Total	0	34	0	2	36	13	0	17	1	31	16	48	0	7	71	10	8	1	29	48	186
10:00 AM	0	7	0	0	7	3	1	4	0	8	4	9	0	3	16	1	4	0	1	6	37
10:15 AM	0	6	0	0	6	4	0	1	0	5	6	8	0	2	16	3	4	1	1	9	36
10:30 AM	0	10	0	3	13	5	0	2	1	8	4	17	0	2	23	4	3	0	4	11	55
10:45 AM	0	12	2	0	14	3	0	3	0	6	4	14	0	3	21	0	1	0	10	11	52
Total	0	35	2	3	40	15	1	10	1	27	18	48	0	10	76	8	12	1	16	37	180
11:00 AM	0	7	2	0	9	1	0	1	2	4	4	12	1	1	18	1	3	0	7	11	42
11:15 AM	1	10	2	6	19	9	1	2	1	13	2	12	0	4	18	3	4	2	8	17	67
11:30 AM	0	8	2	2	12	2	0	6	0	8	4	13	0	0	17	4	3	1	0	8	45
11:45 AM	0	8	1	2	11	4	0	5	0	9	4	5	0	4	13	1	2	0	2	5	38
Total	1	33	7	10	51	16	1	14	3	34	14	42	1	9	66	9	12	3	17	41	192
12:00 PM	0	7	5	1	13	4	0	2	0	6	4	11	0	3	18	5	0	3	4	12	49
12:15 PM	0	13	1	0	14	4	0	3	2	9	4	14	1	3	22	1	3	2	5	11	56
12:30 PM	0	7	14	0	21	3	1	9	0	13	4	13	1	1	19	3	1	0	2	6	59
12:45 PM	0	5	1	0	6	3	0	4	0	7	5	16	0	0	21	4	2	2	3	11	45
Total	0	32	21	1	54	14	1	18	2	35	17	54	2	7	80	13	6	7	14	40	209

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

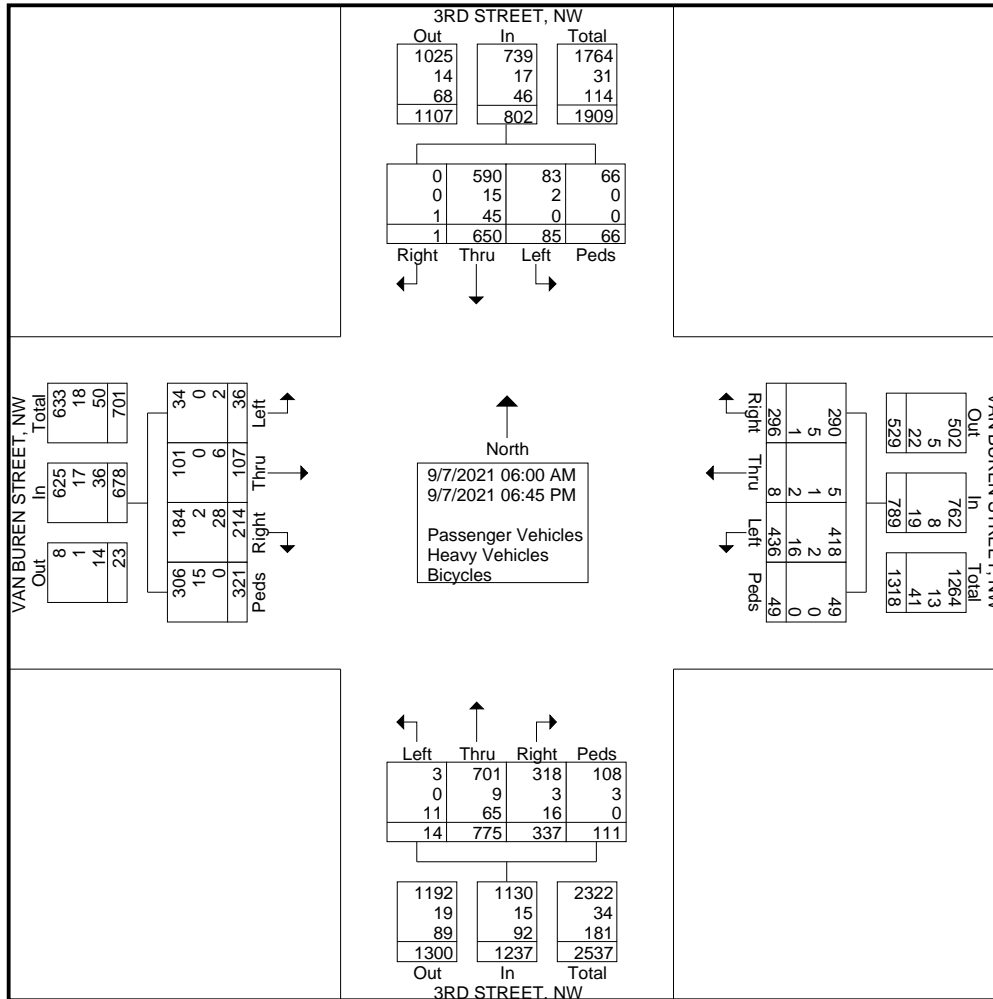
## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	3RD STREET, NW From North					VAN BUREN STREET, NW From East					3RD STREET, NW From South					VAN BUREN STREET, NW From West					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		
	01:00 PM	0	8	0	1	9	4	1	5	0	10	6	10	0	3	19	5	3	0	8		16
01:15 PM	0	10	2	4	16	6	0	4	1	11	7	8	0	1	16	5	2	0	1	8	51	
01:30 PM	0	5	2	1	8	2	0	5	0	7	1	16	0	2	19	4	1	0	5	10	44	
01:45 PM	0	13	1	0	14	2	0	6	0	8	3	7	0	0	10	2	0	0	2	4	36	
<b>Total</b>	<b>0</b>	<b>36</b>	<b>5</b>	<b>6</b>	<b>47</b>	<b>14</b>	<b>1</b>	<b>20</b>	<b>1</b>	<b>36</b>	<b>17</b>	<b>41</b>	<b>0</b>	<b>6</b>	<b>64</b>	<b>16</b>	<b>6</b>	<b>0</b>	<b>16</b>	<b>38</b>	<b>185</b>	
02:00 PM	0	3	1	1	5	4	0	2	1	7	4	13	1	0	18	4	1	3	0	8	38	
02:15 PM	0	10	2	1	13	4	0	5	1	10	1	9	0	0	10	4	1	1	3	9	42	
02:30 PM	0	14	0	0	14	8	0	4	0	12	6	10	0	1	17	3	3	1	2	9	52	
02:45 PM	0	16	1	0	17	4	0	7	0	11	7	16	0	0	23	3	0	0	1	4	55	
<b>Total</b>	<b>0</b>	<b>43</b>	<b>4</b>	<b>2</b>	<b>49</b>	<b>20</b>	<b>0</b>	<b>18</b>	<b>2</b>	<b>40</b>	<b>18</b>	<b>48</b>	<b>1</b>	<b>1</b>	<b>68</b>	<b>14</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>30</b>	<b>187</b>	
03:00 PM	0	16	1	0	17	12	0	11	0	23	7	22	0	2	31	5	2	0	2	9	80	
03:15 PM	0	17	3	0	20	7	0	13	0	20	10	19	0	0	29	8	0	2	4	14	83	
03:30 PM	0	20	2	5	27	11	2	11	0	24	12	30	0	3	45	3	5	4	9	21	117	
03:45 PM	0	16	7	0	23	11	0	18	1	30	20	27	0	4	51	10	5	0	4	19	123	
<b>Total</b>	<b>0</b>	<b>69</b>	<b>13</b>	<b>5</b>	<b>87</b>	<b>41</b>	<b>2</b>	<b>53</b>	<b>1</b>	<b>97</b>	<b>49</b>	<b>98</b>	<b>0</b>	<b>9</b>	<b>156</b>	<b>26</b>	<b>12</b>	<b>6</b>	<b>19</b>	<b>63</b>	<b>403</b>	
04:00 PM	0	13	2	1	16	8	0	6	2	16	17	27	0	2	46	1	5	0	7	13	91	
04:15 PM	0	14	1	0	15	6	0	6	1	13	14	20	1	1	36	2	3	4	1	10	74	
04:30 PM	0	14	4	1	19	11	0	7	0	18	11	25	0	6	42	4	1	0	4	9	88	
04:45 PM	0	16	2	1	19	5	1	10	0	16	12	33	1	1	47	7	3	1	18	29	111	
<b>Total</b>	<b>0</b>	<b>57</b>	<b>9</b>	<b>3</b>	<b>69</b>	<b>30</b>	<b>1</b>	<b>29</b>	<b>3</b>	<b>63</b>	<b>54</b>	<b>105</b>	<b>2</b>	<b>10</b>	<b>171</b>	<b>14</b>	<b>12</b>	<b>5</b>	<b>30</b>	<b>61</b>	<b>364</b>	
05:00 PM	0	10	3	0	13	3	0	5	1	9	10	21	1	4	36	6	2	2	18	28	86	
05:15 PM	0	16	2	1	19	5	0	3	1	9	15	20	2	0	37	4	3	1	7	15	80	
05:30 PM	0	16	0	3	19	6	0	10	2	18	6	24	0	4	34	5	5	1	13	24	95	
05:45 PM	0	22	4	0	26	13	0	10	1	24	13	23	0	1	37	5	2	1	10	18	105	
<b>Total</b>	<b>0</b>	<b>64</b>	<b>9</b>	<b>4</b>	<b>77</b>	<b>27</b>	<b>0</b>	<b>28</b>	<b>5</b>	<b>60</b>	<b>44</b>	<b>88</b>	<b>3</b>	<b>9</b>	<b>144</b>	<b>20</b>	<b>12</b>	<b>5</b>	<b>48</b>	<b>85</b>	<b>366</b>	
06:00 PM	0	16	1	1	18	6	0	10	4	20	7	22	0	4	33	10	1	0	15	26	97	
06:15 PM	0	14	1	4	19	6	0	3	3	12	6	22	2	1	31	4	4	1	8	17	79	
06:30 PM	0	13	3	2	18	3	0	4	6	13	8	18	0	5	31	5	1	0	6	12	74	
06:45 PM	0	14	0	1	15	1	0	4	1	6	8	6	0	3	17	7	5	0	5	17	55	
<b>Total</b>	<b>0</b>	<b>57</b>	<b>5</b>	<b>8</b>	<b>70</b>	<b>16</b>	<b>0</b>	<b>21</b>	<b>14</b>	<b>51</b>	<b>29</b>	<b>68</b>	<b>2</b>	<b>13</b>	<b>112</b>	<b>26</b>	<b>11</b>	<b>1</b>	<b>34</b>	<b>72</b>	<b>305</b>	
<b>Grand Total</b>	<b>1</b>	<b>650</b>	<b>85</b>	<b>66</b>	<b>802</b>	<b>296</b>	<b>8</b>	<b>436</b>	<b>49</b>	<b>789</b>	<b>337</b>	<b>775</b>	<b>14</b>	<b>111</b>	<b>1237</b>	<b>214</b>	<b>107</b>	<b>36</b>	<b>321</b>	<b>678</b>	<b>3506</b>	
Apprch %	0.1	81	10.6	8.2		37.5	1	55.3	6.2		27.2	62.7	1.1	9		31.6	15.8	5.3	47.3			
Total %	0	18.5	2.4	1.9	22.9	8.4	0.2	12.4	1.4	22.5	9.6	22.1	0.4	3.2	35.3	6.1	3.1	1	9.2	19.3		
Passenger Vehicles																						
% Passenger Vehicles	0	90.8	97.6	100	92.1	98	62.5	95.9	100	96.6	94.4	90.5	21.4	97.3	91.4	86	94.4	94.4	95.3	92.2	92.9	
Heavy Vehicles	0	15	2	0	17	5	1	2	0	8	3	9	0	3	15	2	0	0	15	17	57	
% Heavy Vehicles	0	2.3	2.4	0	2.1	1.7	12.5	0.5	0	1	0.9	1.2	0	2.7	1.2	0.9	0	0	4.7	2.5	1.6	
Bicycles	1	45	0	0	46	1	2	16	0	19	16	65	11	0	92	28	6	2	0	36	193	
% Bicycles	100	6.9	0	0	5.7	0.3	25	3.7	0	2.4	4.7	8.4	78.6	0	7.4	13.1	5.6	5.6	0	5.3	5.5	

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

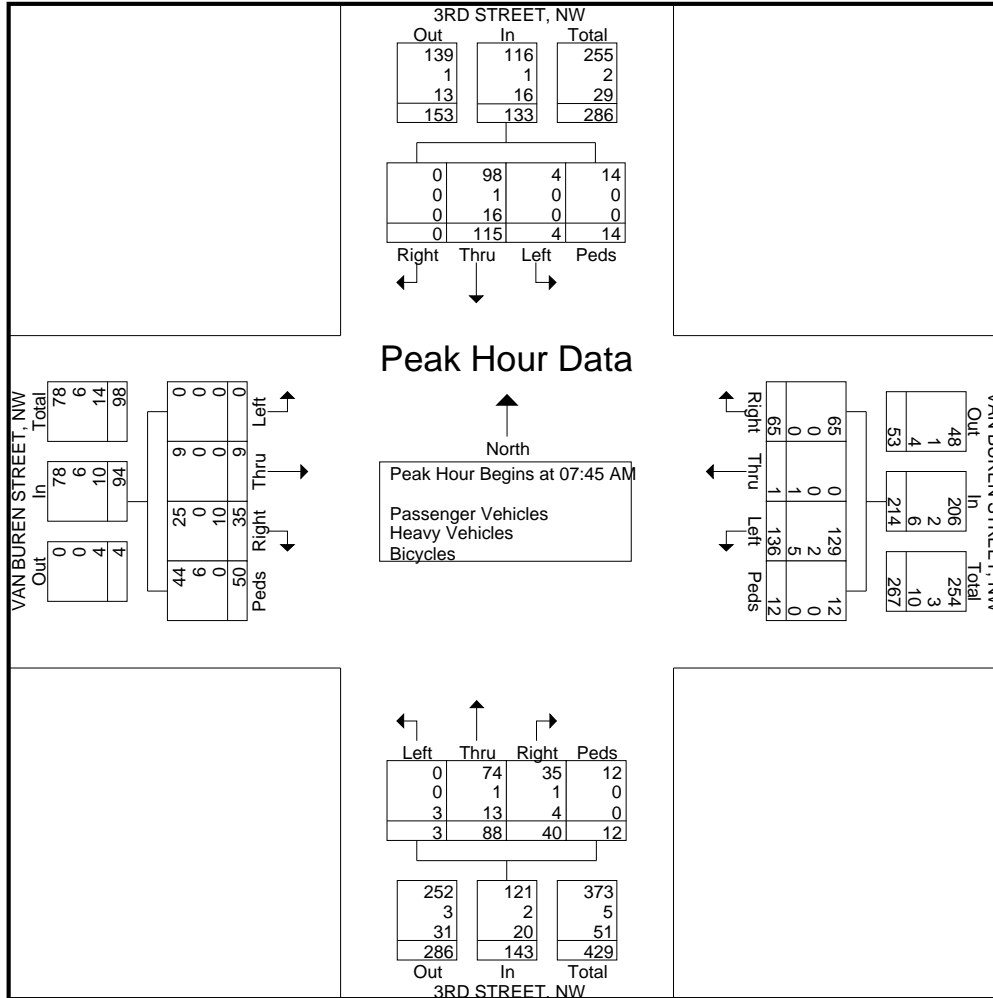
## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	3RD STREET, NW From North					VAN BUREN STREET, NW From East					3RD STREET, NW From South					VAN BUREN STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	33	0	0	33	11	1							3							
08:00 AM	0	25	1	1	27	21	0	42	1	64	8	23	2	3	36	5	4	0	23	32	159
08:15 AM	0	23	1	6	30	13	0	42	4	59	19	34	0	3	56	12	3	0	9	24	169
08:30 AM	0	34	2	7	43	20	0	29	6	55	11	20	0	3	34	9	0	0	11	20	152
Total Volume	0	115	4	14	133	65	1	136	12	214	40	88	3	12	143	35	9	0	50	94	584
% App. Total	0	86.5	3	10.5		30.4	0.5	63.6	5.6		28	61.5	2.1	8.4		37.2	9.6	0	53.2		
PHF	.000	.846	.500	.500	.773	.774	.250	.810	.500	.836	.526	.647	.375	1.00	.638	.729	.563	.000	.543	.734	.864
Passenger Vehicles	0	98	4	14	116	65	0	129	12	206	35	74	0	12	121	25	9	0	44	78	521
% Passenger Vehicles	0	85.2	100	100	87.2	100	0	94.9	100	96.3	87.5	84.1	0	100	84.6	71.4	100	0	88.0	83.0	89.2
Heavy Vehicles	0	1	0	0	1	0	0	2	0	2	1	1	0	0	2	0	0	0	6	6	11
% Heavy Vehicles	0	0.9	0	0	0.8	0	0	1.5	0	0.9	2.5	1.1	0	0	1.4	0	0	0	12.0	6.4	1.9
Bicycles	0	16	0	0	16	0	1	5	0	6	4	13	3	0	20	10	0	0	0	10	52
% Bicycles	0	13.9	0	0	12.0	0	100	3.7	0	2.8	10.0	14.8	100	0	14.0	28.6	0	0	0	10.6	8.9

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS





# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

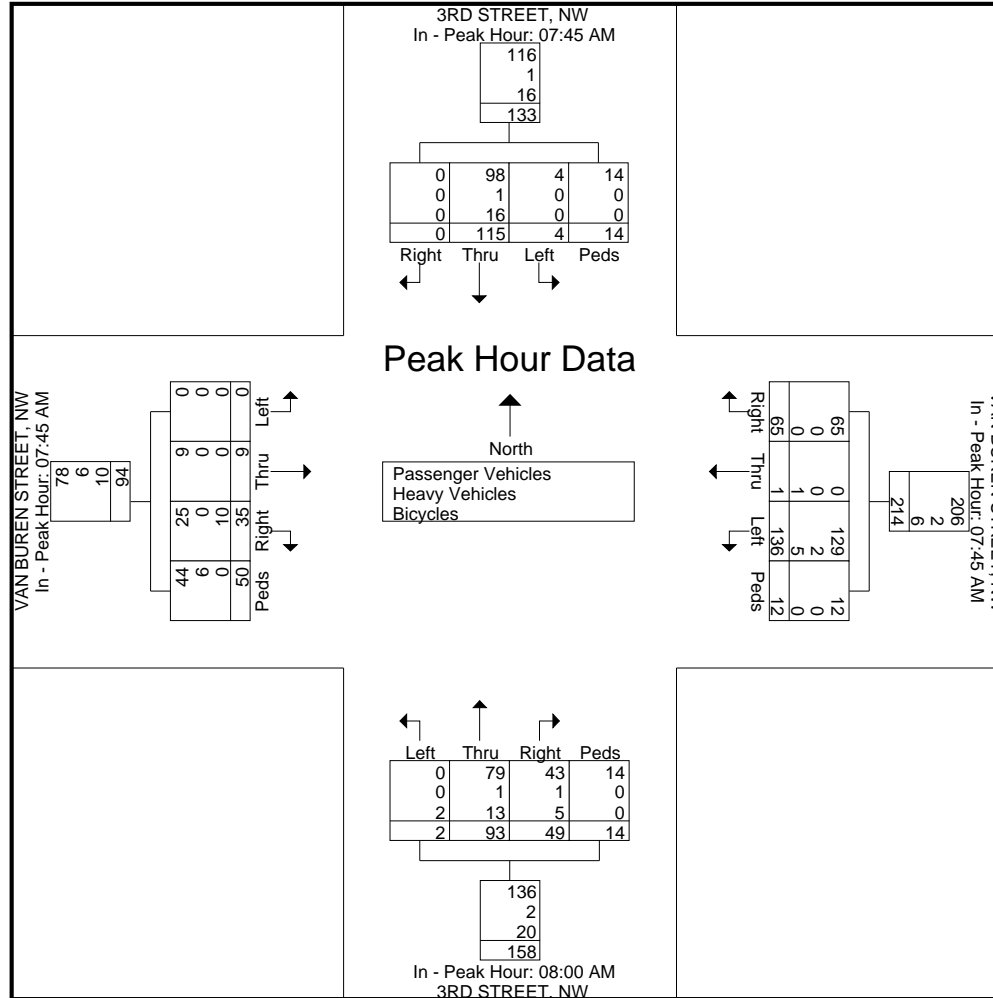
## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	3RD STREET, NW From North					VAN BUREN STREET, NW From East					3RD STREET, NW From South					VAN BUREN STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM					07:45 AM					08:00 AM					07:45 AM					
+0 mins.	0	33	0	0	33	11	1	23	1	36	8	23	2	3	36	9	2	0	7	18	
+15 mins.	0	25	1	1	27	21	0	42	1	64	19	34	0	3	56	5	4	0	23	32	
+30 mins.	0	23	1	6	30	13	0	42	4	59	11	20	0	3	34	12	3	0	9	24	
+45 mins.	0	34	2	7	43	20	0	29	6	55	11	16	0	5	32	9	0	0	11	20	
Total Volume	0	115	4	14	133	65	1	136	12	214	49	93	2	14	158	35	9	0	50	94	
% App. Total	0	86.5	3	10.5		30.4	0.5	63.6	5.6		31	58.9	1.3	8.9		37.2	9.6	0	53.2		
PHF	.000	.846	.500	.500	.773	.774	.250	.810	.500	.836	.645	.684	.250	.700	.705	.729	.563	.000	.543	.734	
Passenger Vehicles	0	98	4	14	116	65	0	129	12	206	43	79	0	14	136	25	9	0	44	78	
% Passenger Vehicles	0	85.2	100	100	87.2	100	0	94.9	100	96.3	87.8	84.9	0	100	86.1	71.4	100	0	88	83	
Heavy Vehicles	0	1	0	0	1	0	0	2	0	2	1	1	0	0	2	0	0	0	6	6	
% Heavy Vehicles	0	0.9	0	0	0.8	0	0	1.5	0	0.9	2	1.1	0	0	1.3	0	0	0	12	6.4	
Bicycles	0	16	0	0	16	0	1	5	0	6	5	13	2	0	20	10	0	0	0	10	
% Bicycles	0	13.9	0	0	12	0	100	3.7	0	2.8	10.2	14	100	0	12.7	28.6	0	0	0	10.6	

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

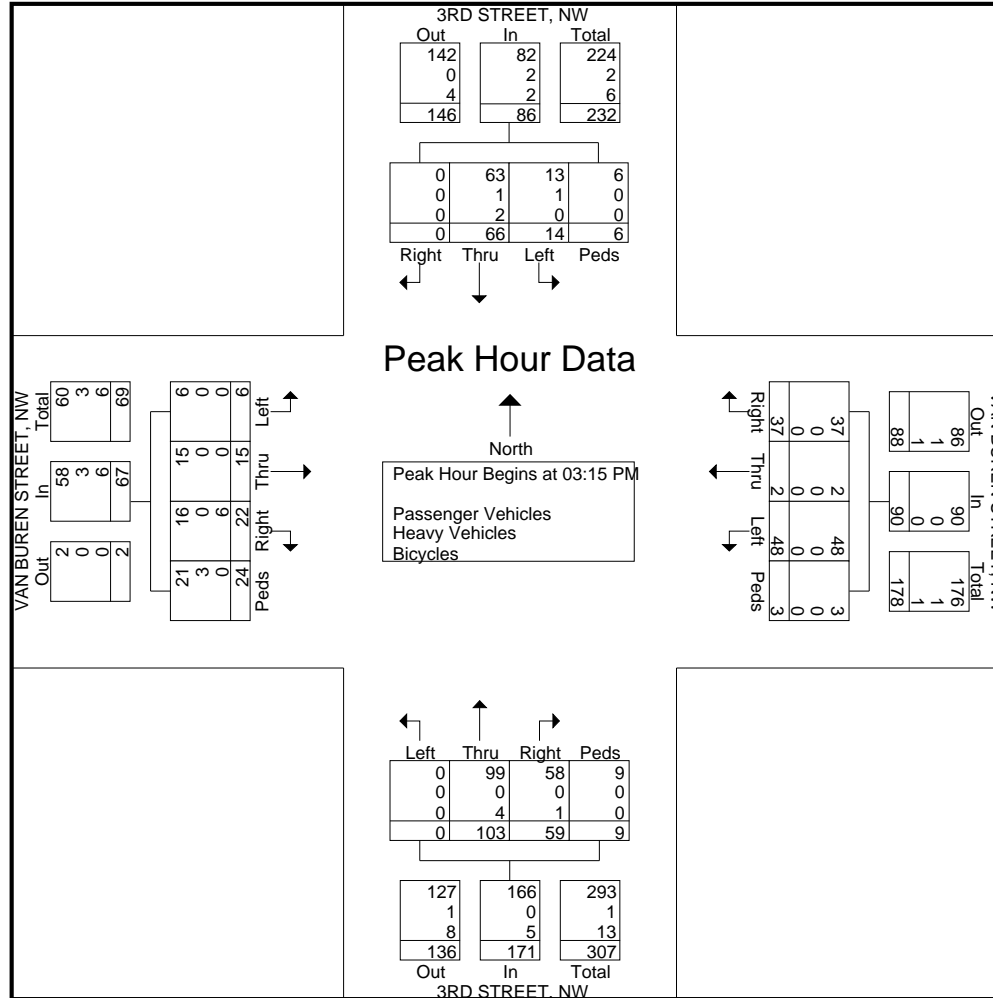
## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	3RD STREET, NW From North					VAN BUREN STREET, NW From East					3RD STREET, NW From South					VAN BUREN STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
03:15 PM	0	17	3	0	20	7	0	13	0	20	10	19	0	0	29	8	0	2	4	14	83
03:30 PM	0	<b>20</b>		<b>5</b>	<b>27</b>	<b>11</b>	<b>2</b>					<b>30</b>					<b>5</b>	<b>4</b>	<b>9</b>	<b>21</b>	
03:45 PM	0	16	7	0	23	11	0	18	1	30	20	27	0	4	51	10	5	0	4	19	123
04:00 PM	0	13	2	1	16	8	0	6	2	16	17	27	0	2	46	1	5	0	7	13	91
Total Volume	0	66	14	6	86	37	2	48	3	90	59	103	0	9	171	22	15	6	24	67	414
% App. Total	0	76.7	16.3	7		41.1	2.2	53.3	3.3		34.5	60.2	0	5.3		32.8	22.4	9	35.8		
PHF	.000	.825	.500	.300	.796	.841	.250	.667	.375	.750	.738	.858	.000	.563	.838	.550	.750	.375	.667	.798	.841
Passenger Vehicles	0	63	13	6	82	37	2	48	3	90	58	99	0	9	166	16	15	6	21	58	396
% Passenger Vehicles	0	95.5	92.9	100	95.3	100	100	100	100	100	98.3	96.1	0	100	97.1	72.7	100	100	87.5	86.6	95.7
Heavy Vehicles	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	5
% Heavy Vehicles	0	1.5	7.1	0	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	12.5	4.5	1.2
Bicycles	0	2	0	0	2	0	0	0	0	0	1	4	0	0	5	6	0	0	0	6	13
% Bicycles	0	3.0	0	0	2.3	0	0	0	0	0	1.7	3.9	0	0	2.9	27.3	0	0	0	9.0	3.1

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS



# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

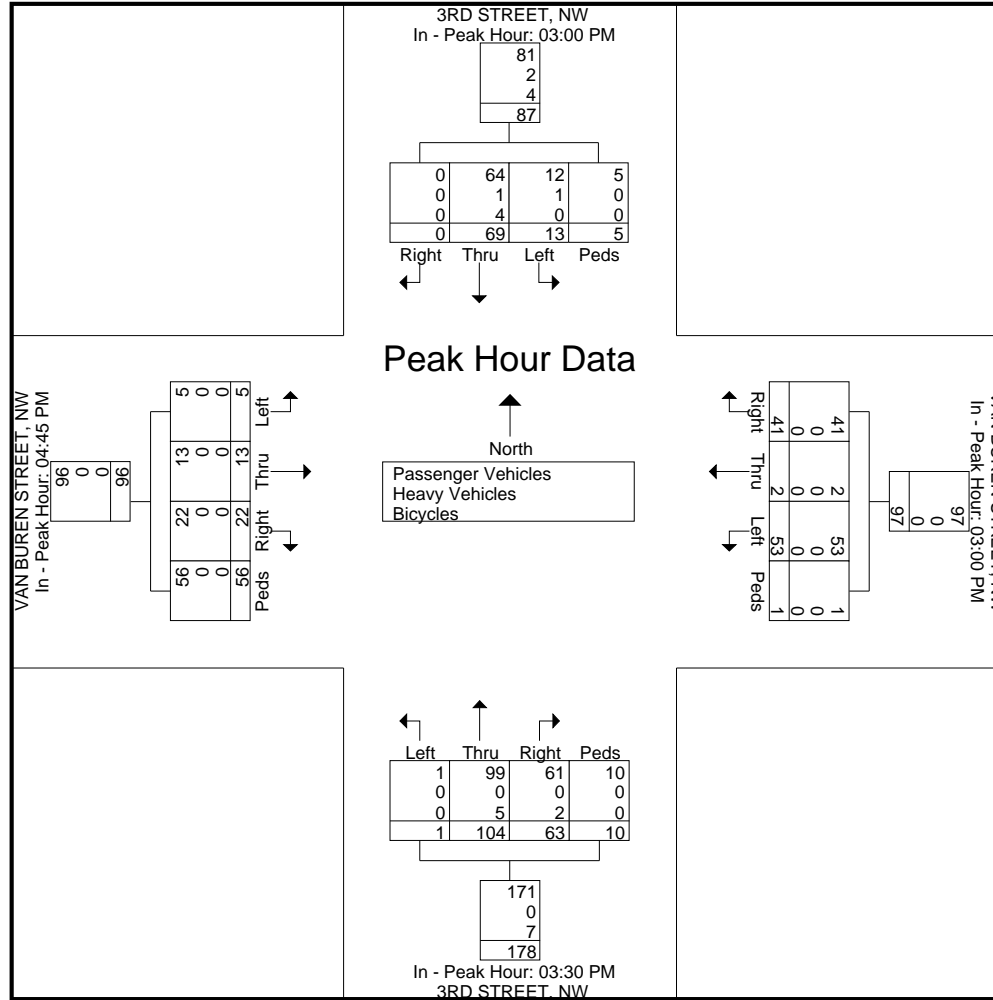
## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS

Start Time	3RD STREET, NW From North					VAN BUREN STREET, NW From East					3RD STREET, NW From South					VAN BUREN STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:00 PM					03:00 PM					03:30 PM					04:45 PM					
+0 mins.	0	16	1	0	17	<b>12</b>	0	11	0	23	12	<b>30</b>	0	3	45	<b>7</b>	3	1	<b>18</b>	<b>29</b>	
+15 mins.	0	17	3	0	20	7	0	13	0	20	<b>20</b>	27	0	<b>4</b>	<b>51</b>	6	2	<b>2</b>	18	28	
+30 mins.	0	<b>20</b>	2	<b>5</b>	<b>27</b>	11	<b>2</b>	11	0	24	17	27	0	2	46	4	3	1	7	15	
+45 mins.	0	16	<b>7</b>	0	23	11	0	<b>18</b>	<b>1</b>	<b>30</b>	14	20	<b>1</b>	1	36	5	<b>5</b>	1	13	24	
Total Volume	0	69	13	5	87	41	2	53	1	97	63	104	1	10	178	22	13	5	56	96	
% App. Total	0	79.3	14.9	5.7		42.3	2.1	54.6	1		35.4	58.4	0.6	5.6		22.9	13.5	5.2	58.3		
PHF	.000	.863	.464	.250	.806	.854	.250	.736	.250	.808	.788	.867	.250	.625	.873	.786	.650	.625	.778	.828	
Passenger Vehicles	0	64	12	5	81	41	2	53	1	97	61	99	1	10	171	22	13	5	56	96	
% Passenger Vehicles	0	92.8	92.3	100	93.1	100	100	100	100	100	96.8	95.2	100	100	96.1	100	100	100	100	100	
Heavy Vehicles	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Heavy Vehicles	0	1.4	7.7	0	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	4	0	0	4	0	0	0	0	0	2	5	0	0	7	0	0	0	0	0	
% Bicycles	0	5.8	0	0	4.6	0	0	0	0	0	3.2	4.8	0	0	3.9	0	0	0	0	0	

# HOWARD UNIVERSITY TRANSPORTATION DATA CENTER

2300 6th Street, NW Washington, DC 20059

## 3RD STREET AND VAN BUREN STREET, NW - PEAK HOURS



# TURNING MOVEMENT COUNTS

## Weekday Traffic Data Collection

### *Locations:*

3<sup>rd</sup> Street and Whittier Street, NW and  
4<sup>th</sup> Street and Whittier Street, NW

### *Prepared By:*



SAMMAT ENGINEERING SERVICES, LLC  
P.O. BOX 780  
MOUNT AIRY, MD 21771  
[www.sammateng.com](http://www.sammateng.com)

September 20<sup>th</sup>, 2021

## INTRODUCTION

SAMMAT Engineering Services, LLC presents this report to provide vehicular turning movement counts obtained on September 7<sup>th</sup>, 2021 at the following locations in the District of Columbia (DC):

- Location 1: 3<sup>rd</sup> Street and Whittier Street, NW
- Location 2: 4<sup>th</sup> Street and Whittier Street, NW

The data collection locations and the surrounding roadway network are presented in Figure 1.

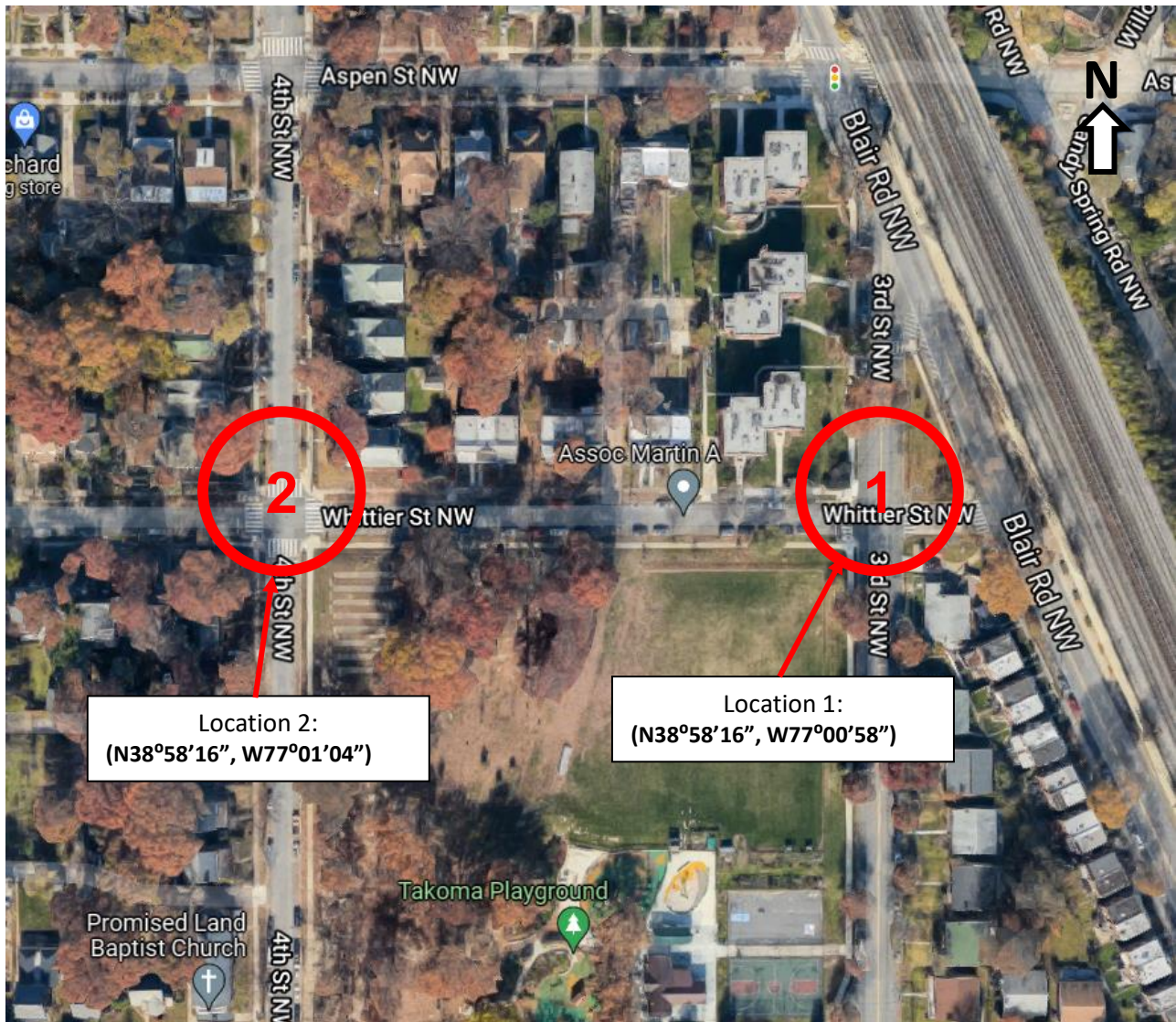


Figure 1: Study Locations



## EXISTING ROADWAY

### Location 1:

The study segment of 3<sup>rd</sup> Street, NW at Location 1 is a bi-directional collector road oriented in the north-south direction, while Whittier Street, NW is a bi-directional local road that runs in the east-west direction. There is parking on both sides of all approaches at Location 1, except on the east leg of the intersection which has no parking. The intersection is controlled by a Two-Way STOP Control with STOP signs on Whittier Street, NW. There is a School Speed Limit of 15 MPH on 3<sup>rd</sup> Street, NW. Figures 2 through 5 present the photographs of all the approaches of the intersection.



**Figure 2: 3<sup>rd</sup> Street, NW Northbound Mid-approach**



**Figure 3: 3<sup>rd</sup> Street, NW Southbound Mid-approach**



**Figure 4: Whittier Street, NW Eastbound Mid-approach**



**Figure 5: Whittier Street, NW Westbound Mid-approach**

**Location 2:**

The study segment of 4<sup>th</sup> Street, NW at Location 2 is a bi-directional local road oriented in the north-south direction, while Whittier Street, NW is a bi-directional local road that runs in the east-west direction. There is parking on both sides of the northbound and southbound approaches at Location 2. Whittier Street, NW has on-street parking only on the southern side of the eastbound and westbound approaches. The intersection is controlled by an All-Way STOP Control. There is a statutory speed limit of 20 MPH at the study intersection. Figures 6 through 9 present the photographs of all the approaches of the intersection.



**Figure 6: 4<sup>th</sup> Street, NW Northbound Mid-approach**



**Figure 7: 4<sup>th</sup> Street, NW Southbound Mid-approach**



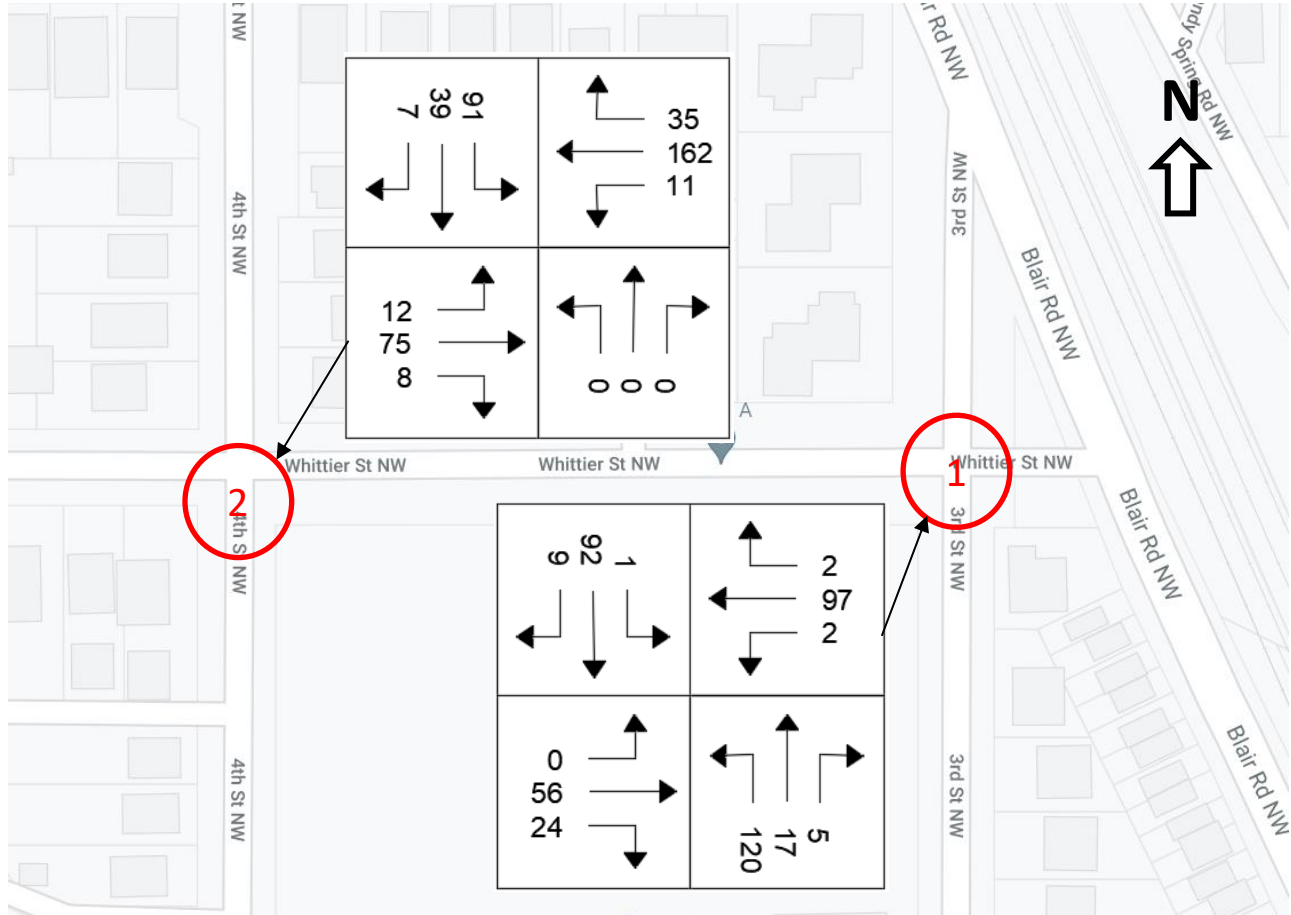
**Figure 8: Whittier Street, NW Eastbound Mid-approach**



**Figure 9: Whittier Street, NW Westbound Mid-approach**

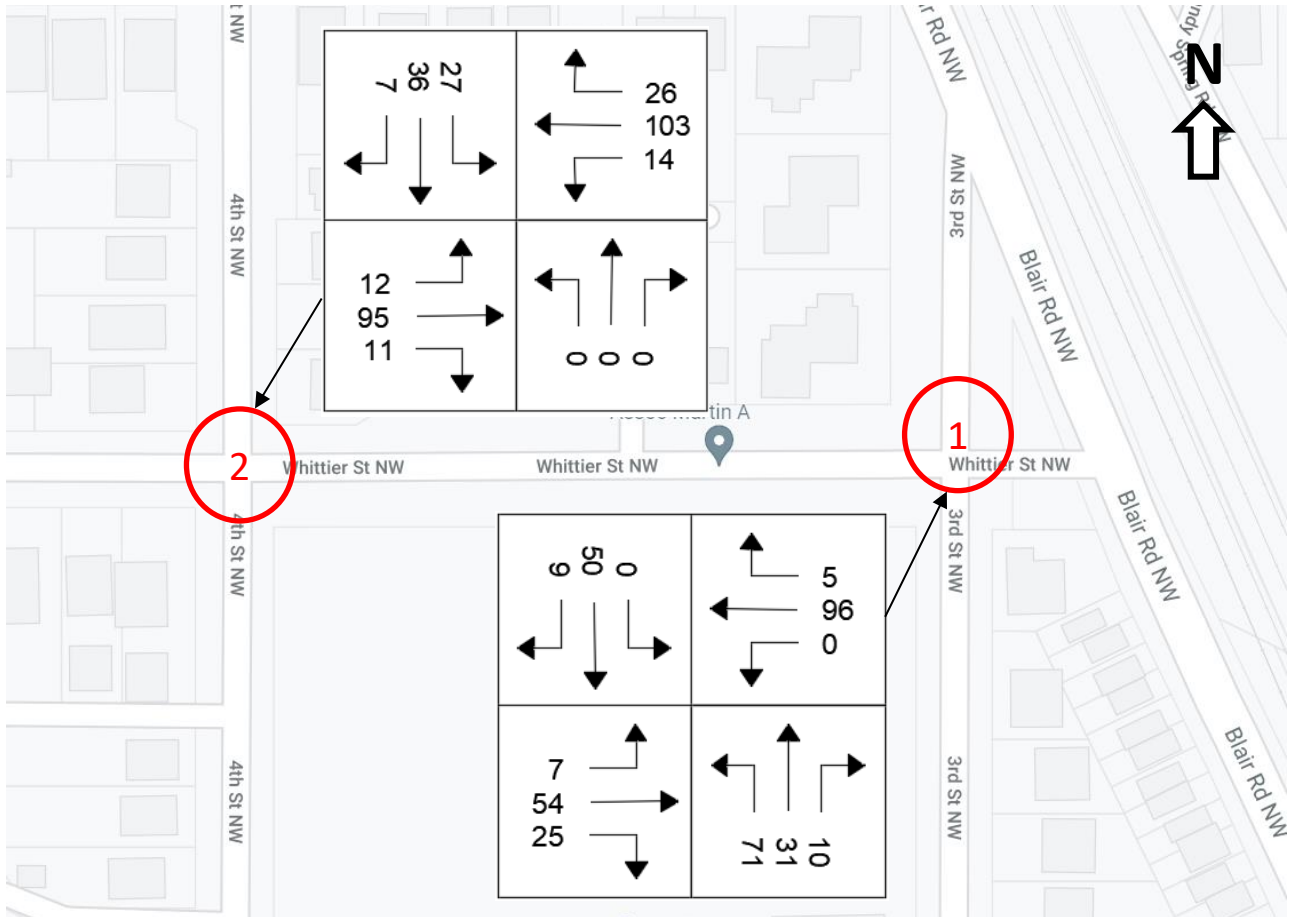
**SUMMARY OF RESULTS**

Figure 10 and 11, respectively, present the AM and PM peak-hour traffic volumes for Locations 1 and 2.



**Figure 10: AM Peak Hour Turning Movement Counts at Study Locations**

Figure 10 shows the AM Peak hour turning movement counts at Locations 1 and 2. The AM peak hour occurred from 7:45 AM to 8:45 AM at Location 1 while Location 2 had AM peak hour from 8:00 AM to 9:00 AM. The results indicate that at Location 1, 3<sup>rd</sup> Street, NW and Whittier Street, NW had AM peak hour volumes of 244 and 181 vehicles, respectively. At Location 2, 4<sup>th</sup> Street, NW and Whittier Street, NW had AM peak hour volumes of 137 and 303 vehicles, respectively.



**Figure 11: PM Peak Hour Turning Movement Counts at Study Locations**

Figure 11 shows the PM Peak hours for Locations 1 and 2. The AM peak hour occurred from 5:15 AM to 6:15 PM at Location 1 while Location 2 had PM peak hour from 3:30 PM to 4:30 PM. The results indicate that at Location 1, 3<sup>rd</sup> Street, NW and Whittier Street, NW had PM peak hour volumes of 171 and 187 vehicles, respectively. At Location 2, 4<sup>th</sup> Street, NW and Whittier Street, NW had PM peak hour volumes of 70 and 261 vehicles, respectively.

A detailed breakdown of the turning movement counts for both locations has been presented in the Appendix.

**APPENDIX**



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS

Start Time	3RD STREET, NW From North					WHITTIER STREET, NW From East					3RD STREET, NW From South					WHITTIER STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
	Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles																				
06:00 AM	1	1	0	0	2	0	4	0	0	4	0	0	0	0	0	2	1	0	4	7	13
06:15 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	3
06:30 AM	1	6	0	0	7	0	8	0	0	8	0	1	5	1	7	0	1	0	2	3	25
06:45 AM	1	5	0	0	6	0	4	0	0	4	0	3	5	1	9	1	2	0	5	8	27
<b>Total</b>	<b>4</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>4</b>	<b>10</b>	<b>2</b>	<b>16</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>12</b>	<b>19</b>	<b>68</b>
07:00 AM	1	7	0	0	8	0	8	0	0	8	0	2	6	0	8	3	1	0	4	8	32
07:15 AM	1	8	0	0	9	0	15	0	0	15	0	4	8	0	12	0	4	0	4	8	44
07:30 AM	1	23	2	0	26	1	24	0	0	25	1	0	16	0	17	4	8	0	5	17	85
07:45 AM	2	27	1	0	30	1	25	1	0	27	2	2	19	0	23	8	9	0	8	25	105
<b>Total</b>	<b>5</b>	<b>65</b>	<b>3</b>	<b>0</b>	<b>73</b>	<b>2</b>	<b>72</b>	<b>1</b>	<b>0</b>	<b>75</b>	<b>3</b>	<b>8</b>	<b>49</b>	<b>0</b>	<b>60</b>	<b>15</b>	<b>22</b>	<b>0</b>	<b>21</b>	<b>58</b>	<b>266</b>
08:00 AM	2	17	0	0	19	1	26	1	0	28	1	4	36	1	42	5	17	0	19	41	130
08:15 AM	1	16	0	0	17	0	25	0	0	25	0	7	32	0	39	7	18	0	17	42	123
08:30 AM	4	32	0	0	36	0	21	0	0	21	2	4	33	1	40	4	12	0	8	24	121
08:45 AM	0	16	0	0	16	1	15	0	0	16	1	5	12	0	18	8	14	0	13	35	85
<b>Total</b>	<b>7</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>2</b>	<b>87</b>	<b>1</b>	<b>0</b>	<b>90</b>	<b>4</b>	<b>20</b>	<b>113</b>	<b>2</b>	<b>139</b>	<b>24</b>	<b>61</b>	<b>0</b>	<b>57</b>	<b>142</b>	<b>459</b>
09:00 AM	1	9	0	0	10	0	9	0	0	9	1	5	14	0	20	1	8	0	6	15	54
09:15 AM	1	7	0	0	8	0	8	0	0	8	0	3	8	0	11	1	5	0	14	20	47
09:30 AM	1	2	0	0	3	0	6	0	0	6	2	4	12	0	18	2	5	0	5	12	39
09:45 AM	1	6	0	0	7	0	9	0	0	9	0	1	7	1	9	1	4	0	4	9	34
<b>Total</b>	<b>4</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>3</b>	<b>13</b>	<b>41</b>	<b>1</b>	<b>58</b>	<b>5</b>	<b>22</b>	<b>0</b>	<b>29</b>	<b>56</b>	<b>174</b>
10:00 AM	0	5	0	0	5	1	7	1	0	9	1	5	4	1	11	2	5	0	3	10	35
10:15 AM	2	5	0	0	7	0	10	0	0	10	1	3	8	1	13	0	5	0	0	5	35
10:30 AM	1	5	0	0	6	0	4	0	0	4	1	8	11	0	20	2	5	1	7	15	45
10:45 AM	0	7	0	0	7	0	4	0	0	4	1	6	10	0	17	2	5	1	15	23	51
<b>Total</b>	<b>3</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>1</b>	<b>25</b>	<b>1</b>	<b>0</b>	<b>27</b>	<b>4</b>	<b>22</b>	<b>33</b>	<b>2</b>	<b>61</b>	<b>6</b>	<b>20</b>	<b>2</b>	<b>25</b>	<b>53</b>	<b>166</b>
11:00 AM	0	4	0	0	4	0	7	1	0	8	2	1	5	0	8	2	6	1	6	15	35
11:15 AM	0	6	0	0	6	2	8	1	0	11	1	6	15	0	22	4	6	0	24	34	73
11:30 AM	0	7	2	1	10	0	6	0	0	6	1	7	8	0	16	3	11	0	4	18	50
11:45 AM	1	7	0	0	8	0	7	0	0	7	0	1	9	0	10	1	9	0	2	12	37
<b>Total</b>	<b>1</b>	<b>24</b>	<b>2</b>	<b>1</b>	<b>28</b>	<b>2</b>	<b>28</b>	<b>2</b>	<b>0</b>	<b>32</b>	<b>4</b>	<b>15</b>	<b>37</b>	<b>0</b>	<b>56</b>	<b>10</b>	<b>32</b>	<b>1</b>	<b>36</b>	<b>79</b>	<b>195</b>

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles																					
Start Time	3RD STREET, NW From North					WHITTIER STREET, NW From East					3RD STREET, NW From South					WHITTIER STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
12:00 PM	3	9	0	0	12	0	6	0	0	6	0	9	7	0	16	4	1	1	1	7	41
12:15 PM	0	11	0	0	11	0	4	0	0	4	0	4	16	0	20	3	10	0	2	15	50
12:30 PM	2	3	1	0	6	0	9	1	0	10	1	5	11	0	17	6	5	0	109	120	153
12:45 PM	2	5	0	0	7	0	12	0	0	12	2	8	11	0	21	1	5	0	28	34	74
<b>Total</b>	<b>7</b>	<b>28</b>	<b>1</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>31</b>	<b>1</b>	<b>0</b>	<b>32</b>	<b>3</b>	<b>26</b>	<b>45</b>	<b>0</b>	<b>74</b>	<b>14</b>	<b>21</b>	<b>1</b>	<b>140</b>	<b>176</b>	<b>318</b>
01:00 PM	1	5	0	0	6	0	10	0	0	10	0	7	5	2	14	2	6	0	28	36	66
01:15 PM	1	9	2	0	12	0	11	0	0	11	0	1	13	0	14	5	4	1	71	81	118
01:30 PM	1	3	0	0	4	0	6	0	0	6	2	7	9	0	18	3	4	0	25	32	60
01:45 PM	1	13	0	0	14	0	8	0	0	8	0	4	6	0	10	2	2	1	0	5	37
<b>Total</b>	<b>4</b>	<b>30</b>	<b>2</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>2</b>	<b>19</b>	<b>33</b>	<b>2</b>	<b>56</b>	<b>12</b>	<b>16</b>	<b>2</b>	<b>124</b>	<b>154</b>	<b>281</b>
02:00 PM	1	1	1	0	3	0	6	0	0	6	1	3	14	0	18	3	10	1	0	14	41
02:15 PM	1	8	0	0	9	1	10	1	0	12	1	4	9	0	14	4	14	0	0	18	53
02:30 PM	0	14	0	0	14	0	9	2	0	11	0	6	15	0	21	2	3	2	2	9	55
02:45 PM	2	13	0	0	15	0	12	0	0	12	0	1	7	0	8	3	3	0	1	7	42
<b>Total</b>	<b>4</b>	<b>36</b>	<b>1</b>	<b>0</b>	<b>41</b>	<b>1</b>	<b>37</b>	<b>3</b>	<b>0</b>	<b>41</b>	<b>2</b>	<b>14</b>	<b>45</b>	<b>0</b>	<b>61</b>	<b>12</b>	<b>30</b>	<b>3</b>	<b>3</b>	<b>48</b>	<b>191</b>
03:00 PM	1	12	0	0	13	0	10	0	0	10	2	10	22	0	34	4	7	0	1	12	69
03:15 PM	2	12	0	2	16	0	8	0	0	8	3	6	19	0	28	6	4	2	6	18	70
03:30 PM	0	13	0	0	13	2	12	0	0	14	1	11	31	0	43	8	24	0	5	37	107
03:45 PM	2	11	0	1	14	0	13	0	0	13	1	16	18	0	35	12	32	2	11	57	119
<b>Total</b>	<b>5</b>	<b>48</b>	<b>0</b>	<b>3</b>	<b>56</b>	<b>2</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>7</b>	<b>43</b>	<b>90</b>	<b>0</b>	<b>140</b>	<b>30</b>	<b>67</b>	<b>4</b>	<b>23</b>	<b>124</b>	<b>365</b>
04:00 PM	2	13	0	0	15	0	9	0	0	9	5	9	22	0	36	2	18	1	2	23	83
04:15 PM	1	10	0	0	11	0	12	1	0	13	1	9	20	0	30	5	15	3	0	23	77
04:30 PM	1	15	0	0	16	0	11	0	0	11	1	9	23	0	33	4	14	0	3	21	81
04:45 PM	0	9	0	0	9	1	13	0	0	14	0	16	17	0	33	11	15	1	10	37	93
<b>Total</b>	<b>4</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>51</b>	<b>1</b>	<b>45</b>	<b>1</b>	<b>0</b>	<b>47</b>	<b>7</b>	<b>43</b>	<b>82</b>	<b>0</b>	<b>132</b>	<b>22</b>	<b>62</b>	<b>5</b>	<b>15</b>	<b>104</b>	<b>334</b>
05:00 PM	0	6	0	0	6	0	11	0	0	11	0	10	16	0	26	6	17	2	11	36	79
05:15 PM	1	11	0	0	12	0	19	0	0	19	2	7	13	0	22	6	17	2	3	28	81
05:30 PM	1	12	0	0	13	3	21	0	0	24	3	11	17	1	32	5	18	1	7	31	100
05:45 PM	3	14	0	0	17	1	36	0	0	37	4	7	24	2	37	10	12	3	11	36	127
<b>Total</b>	<b>5</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>4</b>	<b>87</b>	<b>0</b>	<b>0</b>	<b>91</b>	<b>9</b>	<b>35</b>	<b>70</b>	<b>3</b>	<b>117</b>	<b>27</b>	<b>64</b>	<b>8</b>	<b>32</b>	<b>131</b>	<b>387</b>

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS

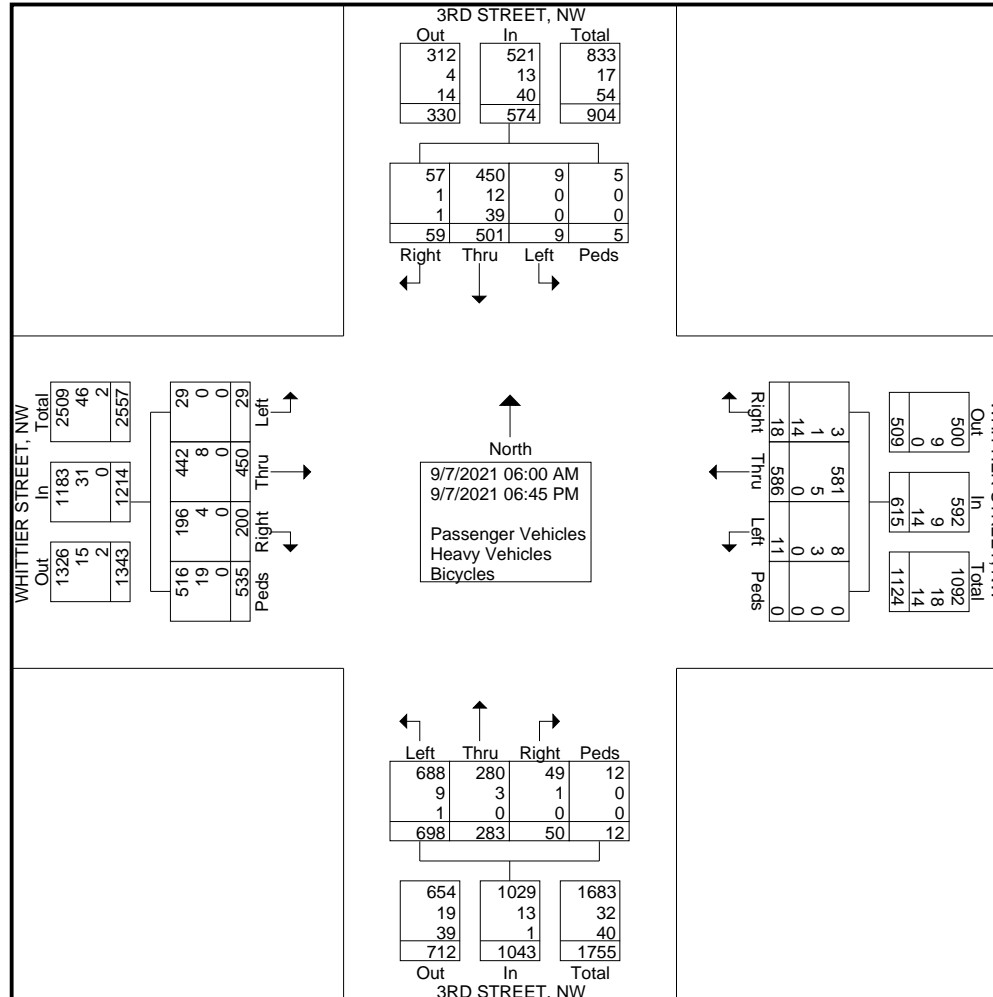
Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	3RD STREET, NW From North					WHITTIER STREET, NW From East					3RD STREET, NW From South					WHITTIER STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 PM	4	13	0	0	17	1	22	0	0	23	1	6	17	0	24	4	7	1	8	20	84
06:15 PM	0	8	0	1	9	2	16	1	0	19	1	3	17	0	21	8	10	0	3	21	70
06:30 PM	2	10	0	0	12	0	6	0	0	6	0	8	12	0	20	4	5	0	3	12	50
06:45 PM	0	10	0	0	10	0	3	0	0	3	0	4	4	0	8	4	7	2	4	17	38
<b>Total</b>	<b>6</b>	<b>41</b>	<b>0</b>	<b>1</b>	<b>48</b>	<b>3</b>	<b>47</b>	<b>1</b>	<b>0</b>	<b>51</b>	<b>2</b>	<b>21</b>	<b>50</b>	<b>0</b>	<b>73</b>	<b>20</b>	<b>29</b>	<b>3</b>	<b>18</b>	<b>70</b>	<b>242</b>
<b>Grand Total</b>	<b>59</b>	<b>501</b>	<b>9</b>	<b>5</b>	<b>574</b>	<b>18</b>	<b>586</b>	<b>11</b>	<b>0</b>	<b>615</b>	<b>50</b>	<b>283</b>	<b>698</b>	<b>12</b>	<b>1043</b>	<b>200</b>	<b>450</b>	<b>29</b>	<b>535</b>	<b>1214</b>	<b>3446</b>
Apprch %	10.3	87.3	1.6	0.9	16.7	2.9	95.3	1.8	0	17.8	4.8	27.1	66.9	1.2	30.3	16.5	37.1	2.4	44.1	35.2	
Total %	1.7	14.5	0.3	0.1	16.7	0.5	17	0.3	0	17.8	1.5	8.2	20.3	0.3	30.3	5.8	13.1	0.8	15.5	35.2	
Passenger Vehicles																					
% Passenger Vehicles	96.6	89.8	100	100	90.8	16.7	99.1	72.7	0	96.3	98	98.9	98.6	100	98.7	98	98.2	100	96.4	97.4	96.5
Heavy Vehicles	1	12	0	0	13	1	5	3	0	9	1	3	9	0	13	4	8	0	19	31	66
% Heavy Vehicles	1.7	2.4	0	0	2.3	5.6	0.9	27.3	0	1.5	2	1.1	1.3	0	1.2	2	1.8	0	3.6	2.6	1.9
Bicycles	1	39	0	0	40	14	0	0	0	14	0	0	1	0	1	0	0	0	0	0	55
% Bicycles	1.7	7.8	0	0	7	77.8	0	0	0	2.3	0	0	0.1	0	0.1	0	0	0	0	0	1.6

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

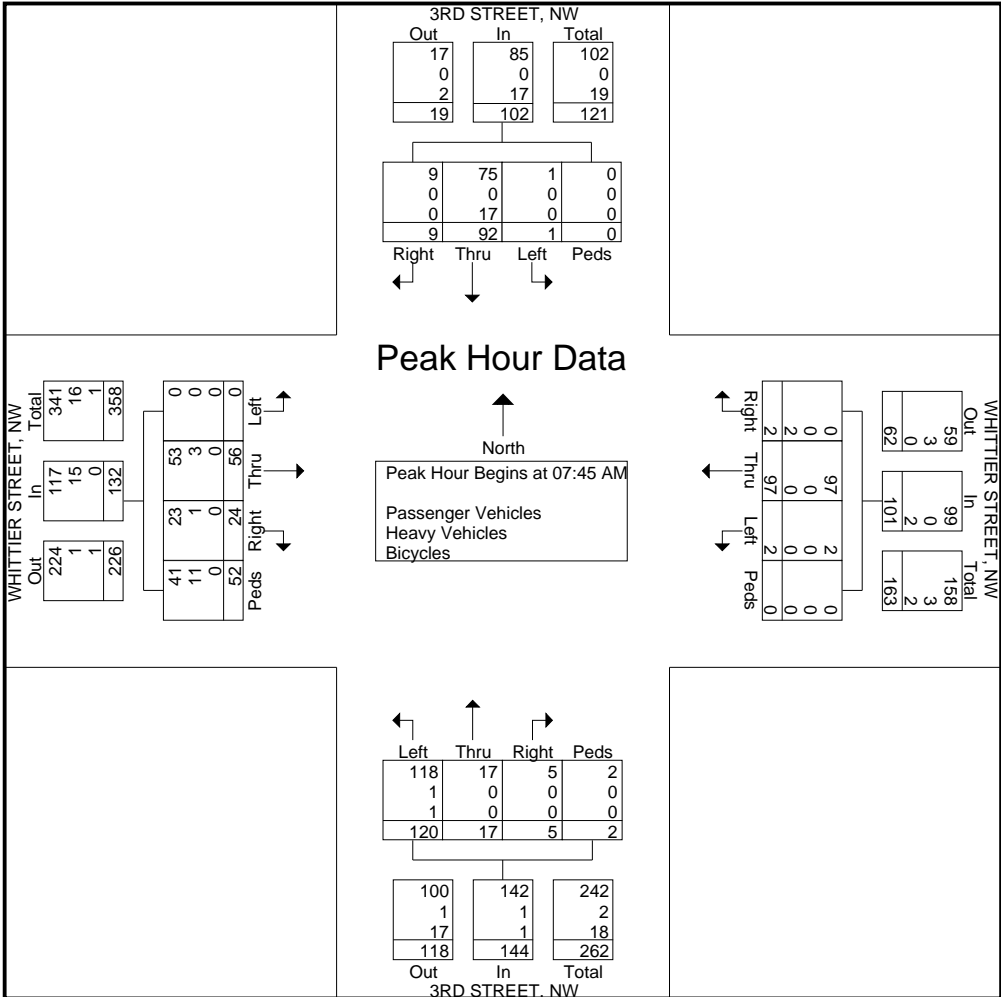
## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS

Start Time	3RD STREET, NW From North					WHITTIER STREET, NW From East					3RD STREET, NW From South					WHITTIER STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	2	27	1			1		1			2					8					
08:00 AM	2	17	0	0	19	1	26	1	0	28	1	4	36	1	42	5	17	0	19	41	130
08:15 AM	1	16	0	0	17	0	25	0	0	25	0	7	32	0	39	7	18	0	17	42	123
08:30 AM	4	32	0	0	36	0	21	0	0	21	2	4	33	1	40	4	12	0	8	24	121
Total Volume	9	92	1	0	102	2	97	2	0	101	5	17	120	2	144	24	56	0	52	132	479
% App. Total	8.8	90.2	1	0		2	96	2	0		3.5	11.8	83.3	1.4		18.2	42.4	0	39.4		
PHF	.563	.719	.250	.000	.708	.500	.933	.500	.000	.902	.625	.607	.833	.500	.857	.750	.778	.000	.684	.786	.921
Passenger Vehicles	9	75	1	0	85	0	97	2	0	99	5	17	118	2	142	23	53	0	41	117	443
% Passenger Vehicles	100	81.5	100	0	83.3	0	100	100	0	98.0	100	100	98.3	100	98.6	95.8	94.6	0	78.8	88.6	92.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3	0	11	15	16
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0.7	4.2	5.4	0	21.2	11.4	3.3
Bicycles	0	17	0	0	17	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	20
% Bicycles	0	18.5	0	0	16.7	100	0	0	0	2.0	0	0	0.8	0	0.7	0	0	0	0	0	4.2

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

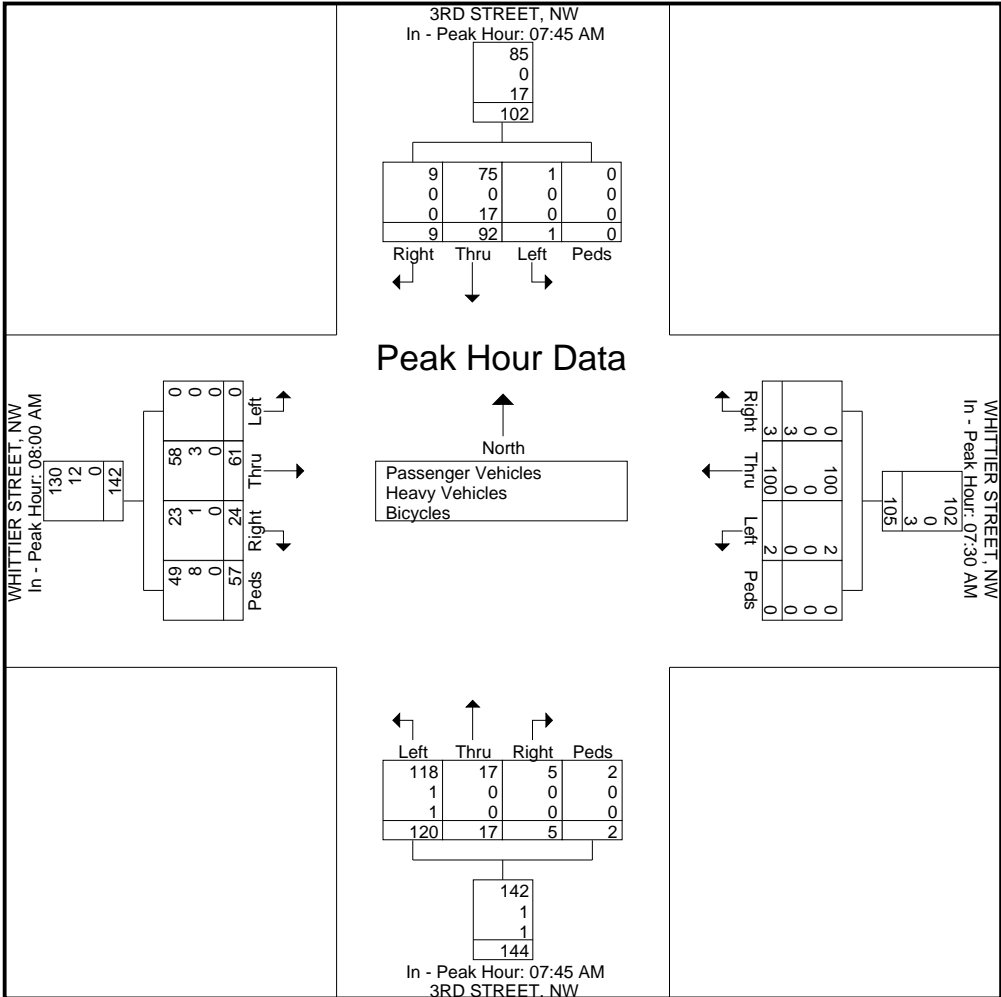
## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS

	3RD STREET, NW From North					WHITTIER STREET, NW From East					3RD STREET, NW From South					WHITTIER STREET, NW From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM					07:30 AM					07:45 AM					08:00 AM					
+0 mins.	2	27	1	0	30	1	24	0	0	25	2	2	19	0	23	5	17	0	19	41	
+15 mins.	2	17	0	0	19	1	25	1	0	27	1	4	36	1	42	7	18	0	17	42	
+30 mins.	1	16	0	0	17	1	26	1	0	28	0	7	32	0	39	4	12	0	8	24	
+45 mins.	4	32	0	0	36	0	25	0	0	25	2	4	33	1	40	8	14	0	13	35	
Total Volume	9	92	1	0	102	3	100	2	0	105	5	17	120	2	144	24	61	0	57	142	
% App. Total	8.8	90.2	1	0		2.9	95.2	1.9	0		3.5	11.8	83.3	1.4		16.9	43	0	40.1		
PHF	.563	.719	.250	.000	.708	.750	.962	.500	.000	.938	.625	.607	.833	.500	.857	.750	.847	.000	.750	.845	
Passenger Vehicles	9	75	1	0	85	0	100	2	0	102	5	17	118	2	142	23	58	0	49	130	
% Passenger Vehicles	100	81.5	100	0	83.3	0	100	100	0	97.1	100	100	98.3	100	98.6	95.8	95.1	0	86	91.5	
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3	0	8	12	
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0.7	4.2	4.9	0	14	8.5	
Bicycles	0	17	0	0	17	3	0	0	0	3	0	0	1	0	1	0	0	0	0	0	
% Bicycles	0	18.5	0	0	16.7	100	0	0	0	2.9	0	0	0.8	0	0.7	0	0	0	0	0	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS



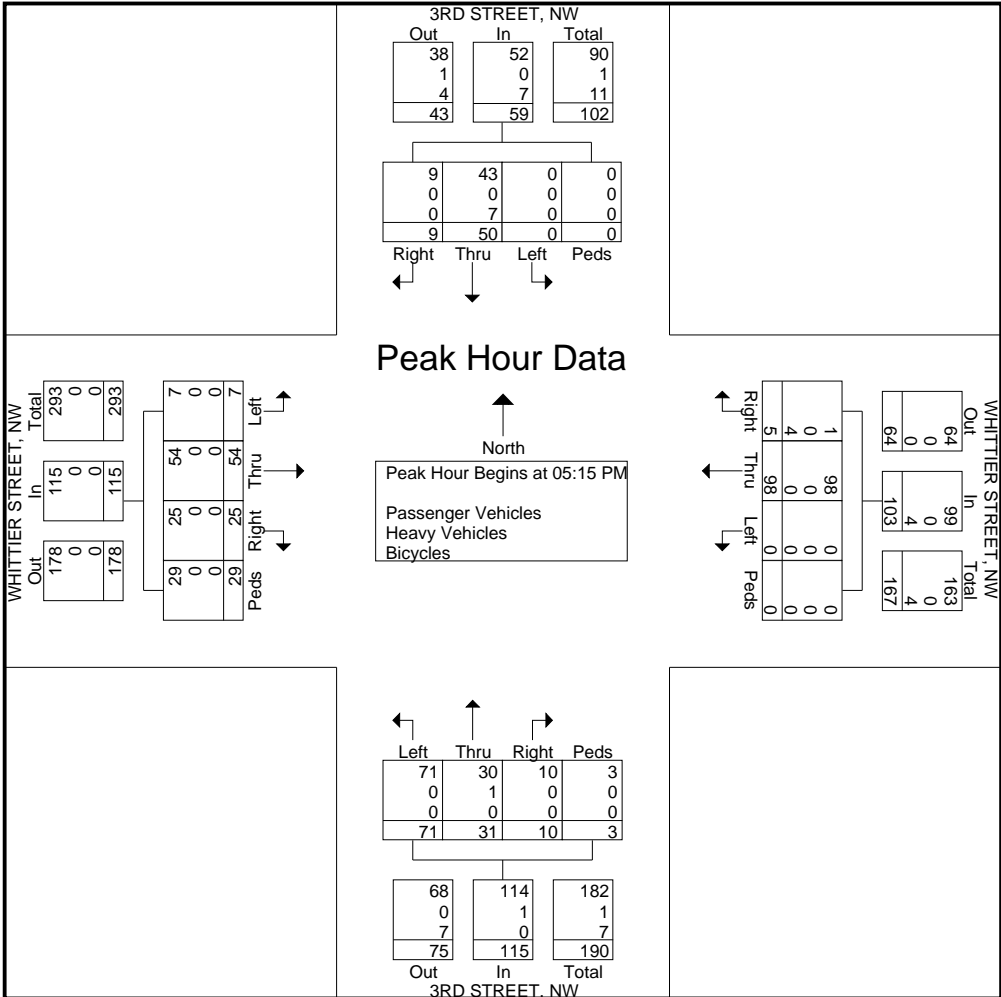




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS

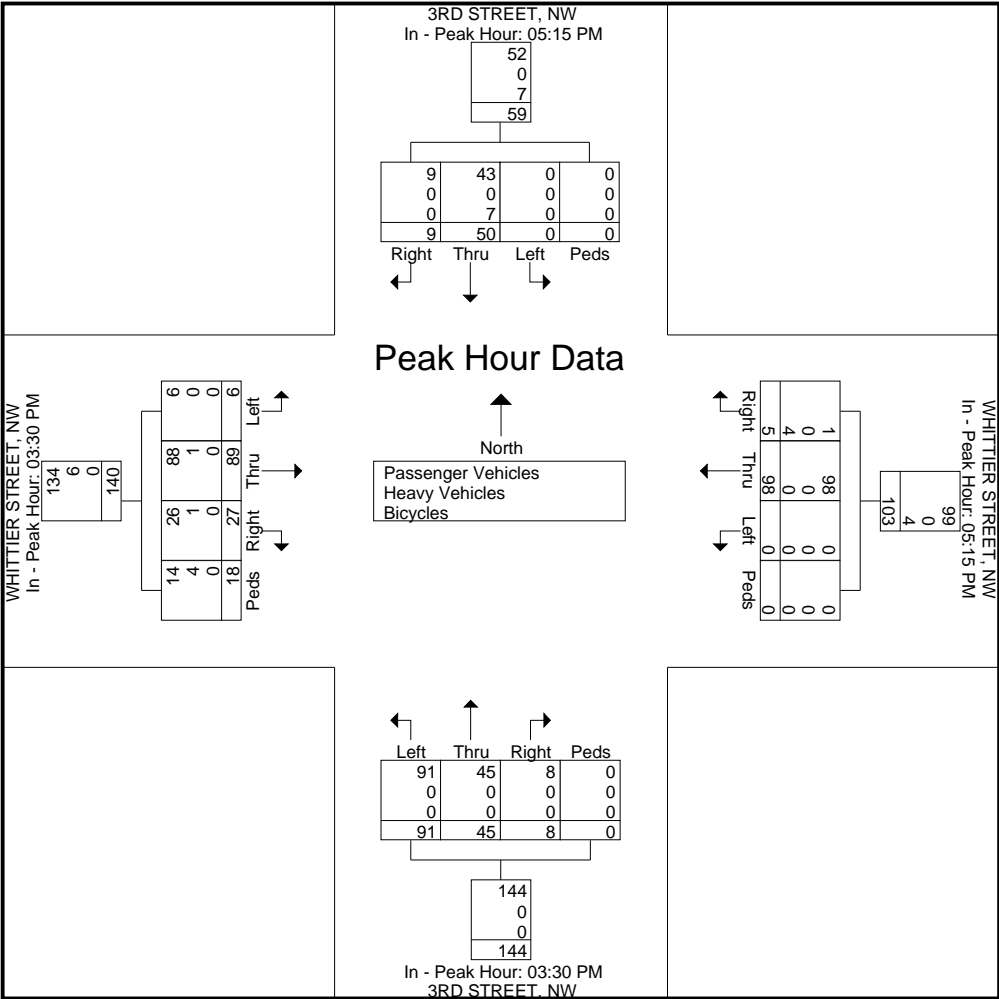




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## 3RD STREET, NW AND WHITTIER STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS

Start Time	Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles																				Int. Total
	4TH STREET, NW From North					WHITTIER STREET, NW From East					4TH STREET, NW From South					WHITTIER STREET, NW From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 AM	1	0	1	0	2	2	4	0	0	6	0	0	0	1	1	0	2	0	1	3	12
06:15 AM	1	3	0	2	6	0	2	0	1	3	0	1	0	0	1	0	0	0	0	0	10
06:30 AM	0	2	0	0	2	2	9	2	1	14	0	0	0	1	1	1	1	0	0	2	19
06:45 AM	0	2	1	0	3	4	7	0	2	13	0	0	0	1	1	1	2	0	0	3	20
<b>Total</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>13</b>	<b>8</b>	<b>22</b>	<b>2</b>	<b>4</b>	<b>36</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>61</b>
07:00 AM	0	5	2	0	7	5	9	1	2	17	0	0	0	3	3	1	2	0	0	3	30
07:15 AM	1	2	1	3	7	4	21	0	4	29	0	0	0	0	0	0	4	0	3	7	43
07:30 AM	0	6	4	0	10	8	30	1	9	48	0	0	0	2	2	1	6	0	2	9	69
07:45 AM	0	11	7	2	20	10	35	3	14	62	0	0	0	3	3	2	14	0	4	20	105
<b>Total</b>	<b>1</b>	<b>24</b>	<b>14</b>	<b>5</b>	<b>44</b>	<b>27</b>	<b>95</b>	<b>5</b>	<b>29</b>	<b>156</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>4</b>	<b>26</b>	<b>0</b>	<b>9</b>	<b>39</b>	<b>247</b>
08:00 AM	0	11	5	4	20	10	51	1	15	77	0	0	0	5	5	1	20	3	8	32	134
08:15 AM	3	12	7	0	22	12	46	3	12	73	0	0	0	6	6	5	19	3	6	33	134
08:30 AM	1	11	3	1	16	8	45	5	25	83	0	0	0	5	5	2	16	2	16	36	140
08:45 AM	3	5	4	1	13	5	20	2	36	63	0	0	0	1	1	0	20	4	12	36	113
<b>Total</b>	<b>7</b>	<b>39</b>	<b>19</b>	<b>6</b>	<b>71</b>	<b>35</b>	<b>162</b>	<b>11</b>	<b>88</b>	<b>296</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>17</b>	<b>8</b>	<b>75</b>	<b>12</b>	<b>42</b>	<b>137</b>	<b>521</b>
09:00 AM	1	7	2	1	11	2	21	2	17	42	0	0	0	7	7	4	7	3	8	22	82
09:15 AM	0	2	2	1	5	6	11	1	13	31	0	0	0	2	2	2	7	1	5	15	53
09:30 AM	2	6	2	1	11	5	8	4	2	19	0	0	0	2	2	1	6	2	4	13	45
09:45 AM	0	2	0	0	2	4	16	0	5	25	0	1	0	1	2	1	5	2	7	15	44
<b>Total</b>	<b>3</b>	<b>17</b>	<b>6</b>	<b>3</b>	<b>29</b>	<b>17</b>	<b>56</b>	<b>7</b>	<b>37</b>	<b>117</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>12</b>	<b>13</b>	<b>8</b>	<b>25</b>	<b>8</b>	<b>24</b>	<b>65</b>	<b>224</b>
10:00 AM	1	3	1	1	6	1	10	0	2	13	0	0	0	0	0	1	6	4	1	12	31
10:15 AM	3	6	2	2	13	1	15	5	3	24	0	0	0	5	5	2	5	4	6	17	59
10:30 AM	2	5	3	0	10	5	8	1	2	16	0	0	0	1	1	1	4	2	3	10	37
10:45 AM	1	2	1	0	4	2	12	4	5	23	0	0	0	1	1	0	5	0	0	5	33
<b>Total</b>	<b>7</b>	<b>16</b>	<b>7</b>	<b>3</b>	<b>33</b>	<b>9</b>	<b>45</b>	<b>10</b>	<b>12</b>	<b>76</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>4</b>	<b>20</b>	<b>10</b>	<b>10</b>	<b>44</b>	<b>160</b>
11:00 AM	1	3	2	1	7	3	5	2	5	15	0	1	0	5	6	1	8	2	4	15	43
11:15 AM	0	3	4	4	11	5	13	7	3	28	0	0	0	1	1	2	8	1	1	12	52
11:30 AM	1	3	6	0	10	7	6	1	38	52	0	0	0	0	0	2	6	0	0	8	70
11:45 AM	1	4	3	4	12	5	12	0	88	105	0	0	0	0	0	0	7	0	3	10	127
<b>Total</b>	<b>3</b>	<b>13</b>	<b>15</b>	<b>9</b>	<b>40</b>	<b>20</b>	<b>36</b>	<b>10</b>	<b>134</b>	<b>200</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>29</b>	<b>3</b>	<b>8</b>	<b>45</b>	<b>292</b>

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	4TH STREET, NW From North					WHITTIER STREET, NW From East					4TH STREET, NW From South					WHITTIER STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
12:00 PM	0	8	2	1	11	2	8	6	38	54	0	0	0	3	3	2	4	2	2	10	78
12:15 PM	1	4	3	1	9	4	13	1	86	104	0	0	0	0	0	3	10	1	0	14	127
12:30 PM	1	4	4	1	10	5	14	3	6	28	0	0	0	1	1	0	6	1	2	9	48
12:45 PM	0	6	1	10	17	6	19	1	7	33	0	0	0	3	3	2	5	0	1	8	61
<b>Total</b>	<b>2</b>	<b>22</b>	<b>10</b>	<b>13</b>	<b>47</b>	<b>17</b>	<b>54</b>	<b>11</b>	<b>137</b>	<b>219</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>25</b>	<b>4</b>	<b>5</b>	<b>41</b>	<b>314</b>
01:00 PM	3	6	3	1	13	3	12	2	33	50	0	0	0	4	4	2	6	2	8	18	85
01:15 PM	0	7	2	1	10	2	20	2	1	25	0	0	0	0	0	2	7	0	2	11	46
01:30 PM	2	7	0	0	9	1	16	1	3	21	0	1	0	2	3	0	7	1	2	10	43
01:45 PM	2	2	1	0	5	4	10	1	2	17	0	1	0	1	2	1	6	0	1	8	32
<b>Total</b>	<b>7</b>	<b>22</b>	<b>6</b>	<b>2</b>	<b>37</b>	<b>10</b>	<b>58</b>	<b>6</b>	<b>39</b>	<b>113</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>9</b>	<b>5</b>	<b>26</b>	<b>3</b>	<b>13</b>	<b>47</b>	<b>206</b>
02:00 PM	0	3	3	0	6	9	13	3	6	31	0	0	0	1	1	3	12	0	0	15	53
02:15 PM	1	5	4	2	12	4	15	4	4	27	0	0	0	1	1	1	14	1	2	18	58
02:30 PM	0	12	3	0	15	6	15	3	4	28	0	0	0	1	1	3	2	2	2	9	53
02:45 PM	3	5	3	0	11	5	20	0	0	25	0	1	0	0	1	0	5	0	0	5	42
<b>Total</b>	<b>4</b>	<b>25</b>	<b>13</b>	<b>2</b>	<b>44</b>	<b>24</b>	<b>63</b>	<b>10</b>	<b>14</b>	<b>111</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>33</b>	<b>3</b>	<b>4</b>	<b>47</b>	<b>206</b>
03:00 PM	2	6	2	1	11	10	19	3	4	36	0	0	0	0	0	1	8	0	3	12	59
03:15 PM	0	12	0	0	12	7	18	5	6	36	0	0	0	1	1	4	12	2	0	18	67
03:30 PM	1	7	6	0	14	5	34	4	13	56	0	0	0	5	5	3	27	1	31	62	137
03:45 PM	1	13	9	0	23	5	24	4	28	61	0	0	0	7	7	6	35	6	35	82	173
<b>Total</b>	<b>4</b>	<b>38</b>	<b>17</b>	<b>1</b>	<b>60</b>	<b>27</b>	<b>95</b>	<b>16</b>	<b>51</b>	<b>189</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>82</b>	<b>9</b>	<b>69</b>	<b>174</b>	<b>436</b>
04:00 PM	2	9	5	1	17	10	21	4	23	58	0	0	0	3	3	0	16	2	17	35	113
04:15 PM	3	7	7	2	19	6	24	2	21	53	0	0	0	1	1	2	17	3	3	25	98
04:30 PM	1	8	1	2	12	6	24	4	3	37	0	2	0	6	8	2	17	0	4	23	80
04:45 PM	1	12	11	2	26	7	18	4	17	46	0	0	0	1	1	7	15	5	3	30	103
<b>Total</b>	<b>7</b>	<b>36</b>	<b>24</b>	<b>7</b>	<b>74</b>	<b>29</b>	<b>87</b>	<b>14</b>	<b>64</b>	<b>194</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>13</b>	<b>11</b>	<b>65</b>	<b>10</b>	<b>27</b>	<b>113</b>	<b>394</b>
05:00 PM	1	5	4	4	14	9	20	2	12	43	0	1	0	1	2	2	22	3	3	30	89
05:15 PM	0	9	5	0	14	8	21	5	7	41	0	0	0	2	2	5	19	7	1	32	89
05:30 PM	2	5	7	2	16	10	28	3	8	49	0	0	0	1	1	6	18	2	9	35	101
05:45 PM	1	11	7	3	22	16	43	3	7	69	0	0	0	5	5	5	16	2	5	28	124
<b>Total</b>	<b>4</b>	<b>30</b>	<b>23</b>	<b>9</b>	<b>66</b>	<b>43</b>	<b>112</b>	<b>13</b>	<b>34</b>	<b>202</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>10</b>	<b>18</b>	<b>75</b>	<b>14</b>	<b>18</b>	<b>125</b>	<b>403</b>

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS

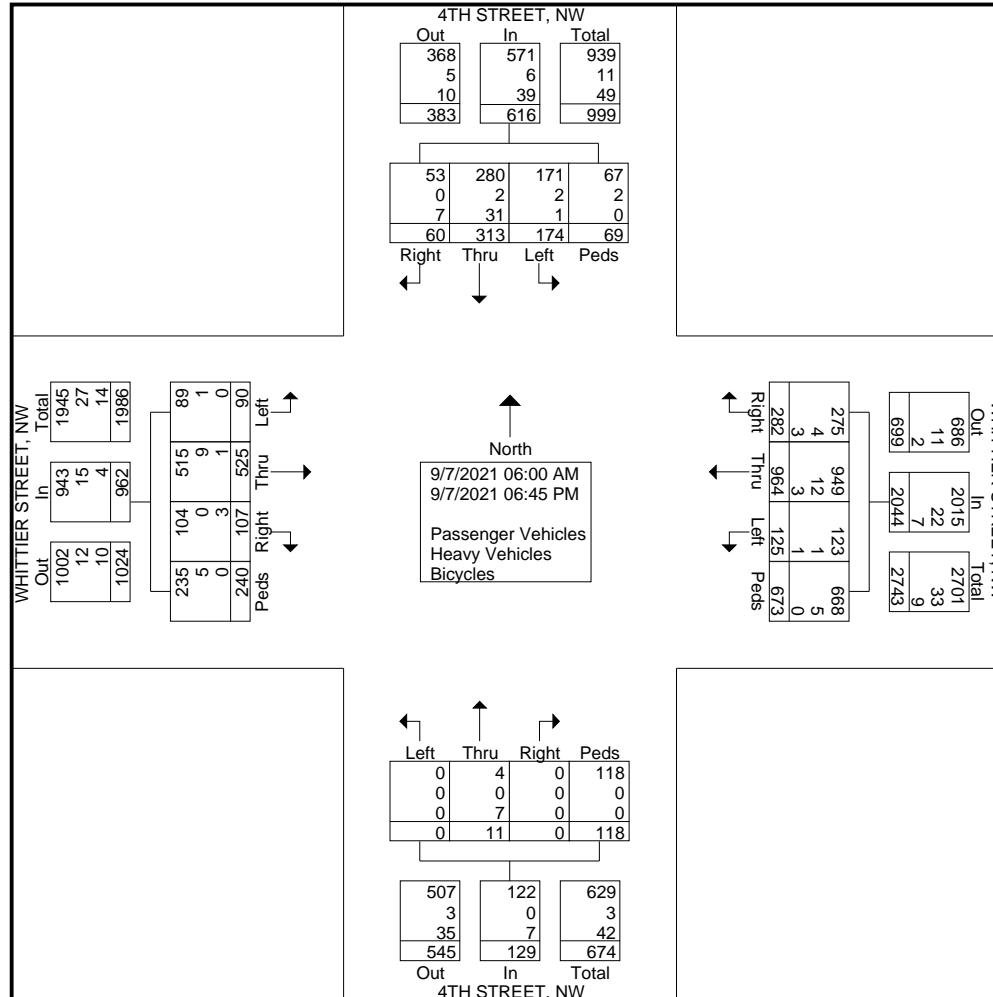
Groups Printed- Passenger Vehicles - Heavy Vehicles - Bicycles

Start Time	4TH STREET, NW From North					WHITTIER STREET, NW From East					4TH STREET, NW From South					WHITTIER STREET, NW From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 PM	5	9	3	0	17	1	36	6	10	53	0	0	0	2	2	1	13	7	3	24	96
06:15 PM	3	9	8	3	23	7	26	0	11	44	0	0	0	1	1	9	9	3	2	23	91
06:30 PM	1	3	3	3	10	5	12	4	5	26	0	2	0	5	7	2	6	2	3	13	56
06:45 PM	0	3	4	1	8	3	5	0	4	12	0	0	0	7	7	2	11	2	2	17	44
<b>Total</b>	<b>9</b>	<b>24</b>	<b>18</b>	<b>7</b>	<b>58</b>	<b>16</b>	<b>79</b>	<b>10</b>	<b>30</b>	<b>135</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>15</b>	<b>17</b>	<b>14</b>	<b>39</b>	<b>14</b>	<b>10</b>	<b>77</b>	<b>287</b>
<b>Grand Total</b>	<b>60</b>	<b>313</b>	<b>174</b>	<b>69</b>	<b>616</b>	<b>282</b>	<b>964</b>	<b>125</b>	<b>673</b>	<b>2044</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>118</b>	<b>129</b>	<b>107</b>	<b>525</b>	<b>90</b>	<b>240</b>	<b>962</b>	<b>3751</b>
Apprch %	9.7	50.8	28.2	11.2		13.8	47.2	6.1	32.9		0	8.5	0	91.5		11.1	54.6	9.4	24.9		
Total %	1.6	8.3	4.6	1.8	16.4	7.5	25.7	3.3	17.9	54.5	0	0.3	0	3.1	3.4	2.9	14	2.4	6.4	25.6	
Passenger Vehicles																					
% Passenger Vehicles	88.3	89.5	98.3	97.1	92.7	97.5	98.4	98.4	99.3	98.6	0	36.4	0	100	94.6	97.2	98.1	98.9	97.9	98	97.3
Heavy Vehicles	0	2	2	2	6	4	12	1	5	22	0	0	0	0	0	0	9	1	5	15	43
% Heavy Vehicles	0	0.6	1.1	2.9	1	1.4	1.2	0.8	0.7	1.1	0	0	0	0	0	0	1.7	1.1	2.1	1.6	1.1
Bicycles	7	31	1	0	39	3	3	1	0	7	0	7	0	0	7	3	1	0	0	4	57
% Bicycles	11.7	9.9	0.6	0	6.3	1.1	0.3	0.8	0	0.3	0	63.6	0	0	5.4	2.8	0.2	0	0	0.4	1.5

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateg.com

## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS



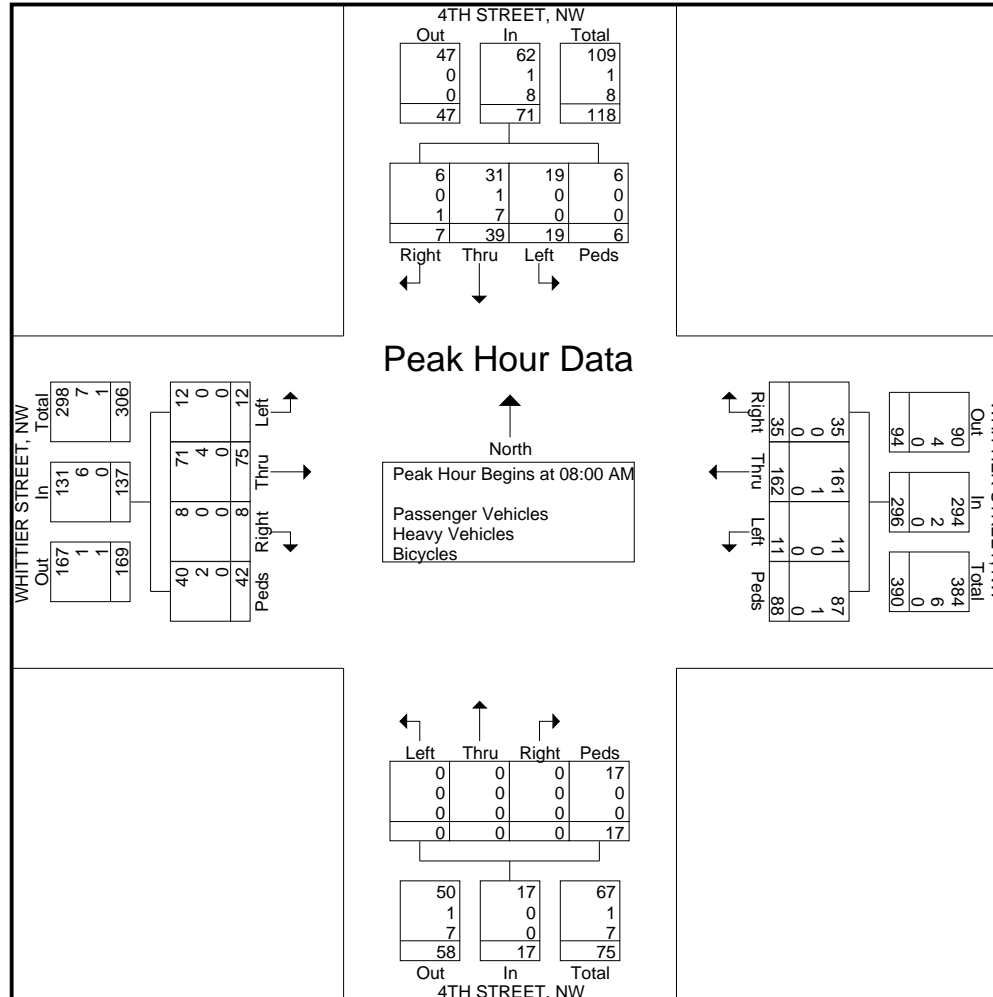




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

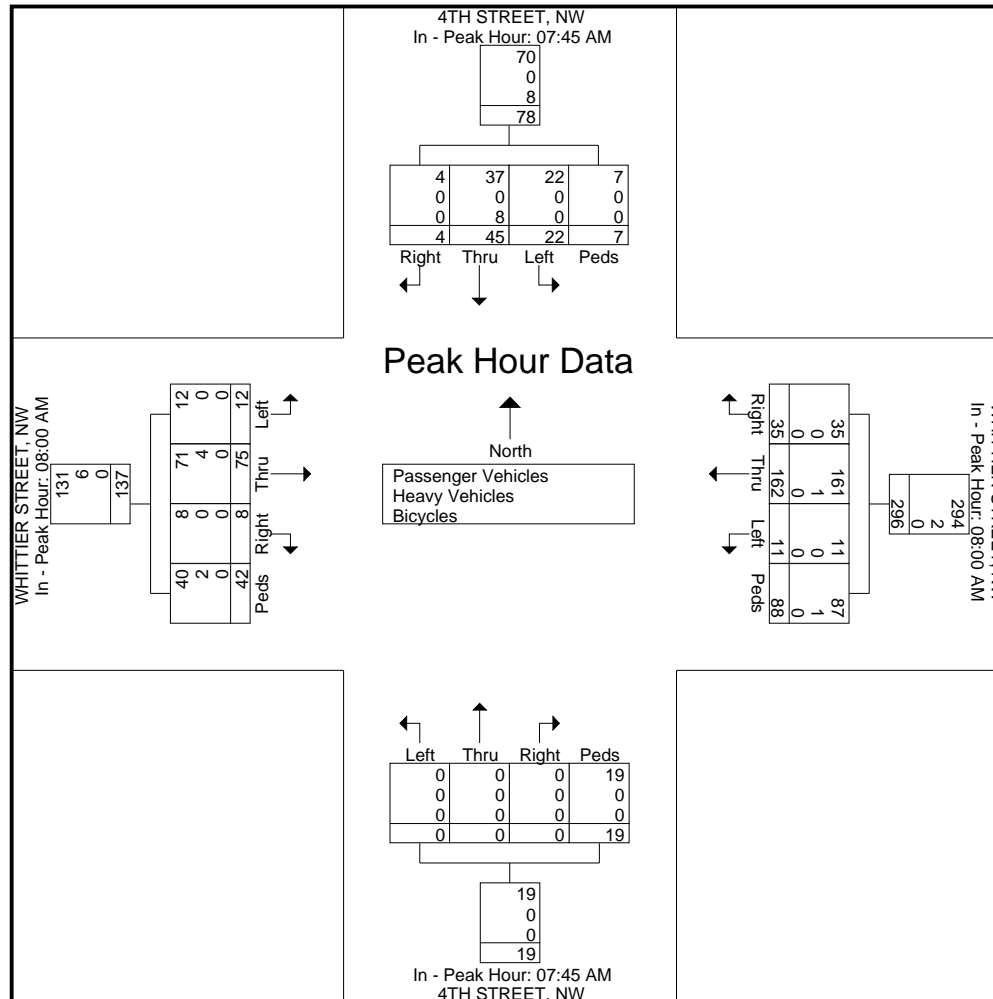
## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS

	4TH STREET, NW From North					WHITTIER STREET, NW From East					4TH STREET, NW From South					WHITTIER STREET, NW From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM					08:00 AM					07:45 AM					08:00 AM					
+0 mins.	0	11	7	2	20	10	51	1	15	77	0	0	0	3	3	1	20	3	8	32	
+15 mins.	0	11	5	4	20	12	46	3	12	73	0	0	0	5	5	5	19	3	6	33	
+30 mins.	3	12	7	0	22	8	45	5	25	83	0	0	0	6	6	2	16	2	16	36	
+45 mins.	1	11	3	1	16	5	20	2	36	63	0	0	0	5	5	0	20	4	12	36	
Total Volume	4	45	22	7	78	35	162	11	88	296	0	0	0	19	19	8	75	12	42	137	
% App. Total	5.1	57.7	28.2	9		11.8	54.7	3.7	29.7		0	0	0	100		5.8	54.7	8.8	30.7		
PHF	.333	.938	.786	.438	.886	.729	.794	.550	.611	.892	.000	.000	.000	.792	.792	.400	.938	.750	.656	.951	
Passenger Vehicles	4	37	22	7	70	35	161	11	87	294	0	0	0	19	19	8	71	12	40	131	
% Passenger Vehicles	100	82.2	100	100	89.7	100	99.4	100	98.9	99.3	0	0	0	100	100	100	94.7	100	95.2	95.6	
Heavy Vehicles	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	4	0	2	6	
% Heavy Vehicles	0	0	0	0	0	0	0.6	0	1.1	0.7	0	0	0	0	0	0	5.3	0	4.8	4.4	
Bicycles	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Bicycles	0	17.8	0	0	10.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS

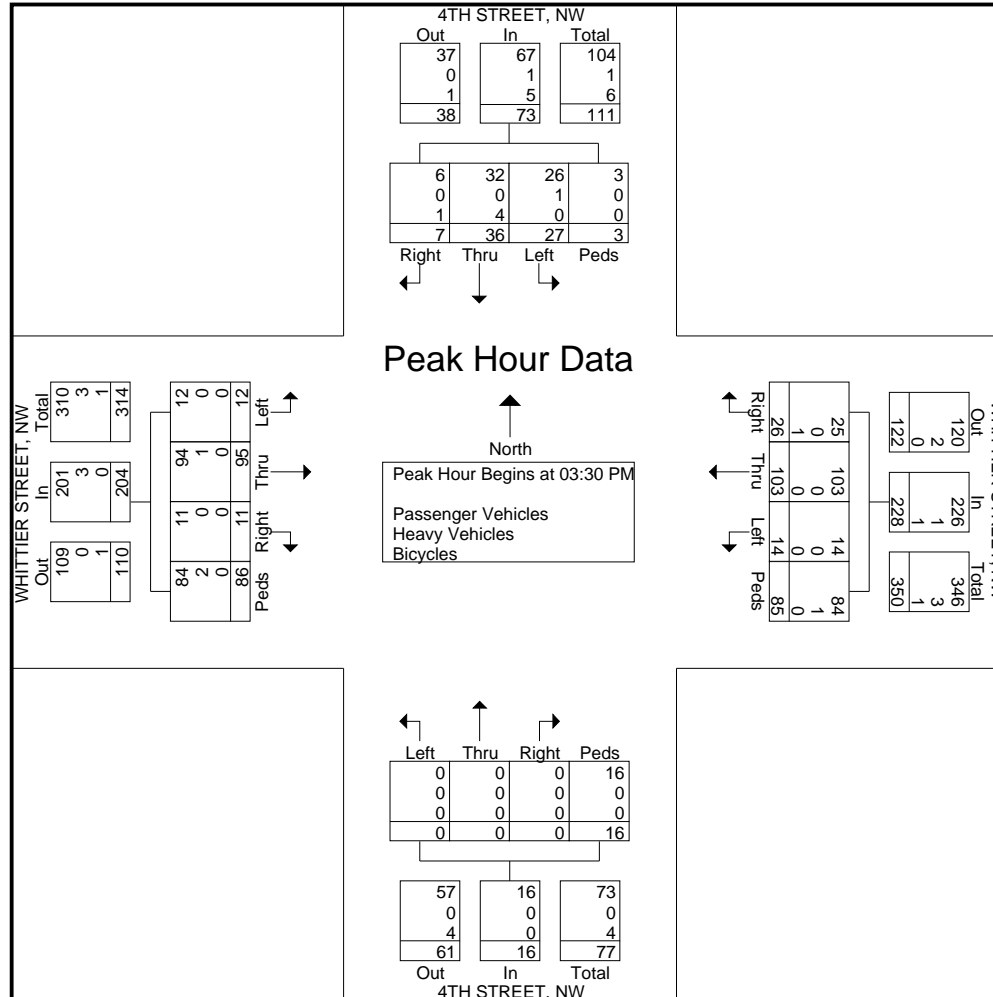




# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
 MT AIRY, MD 21771  
 sammateng.com

## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

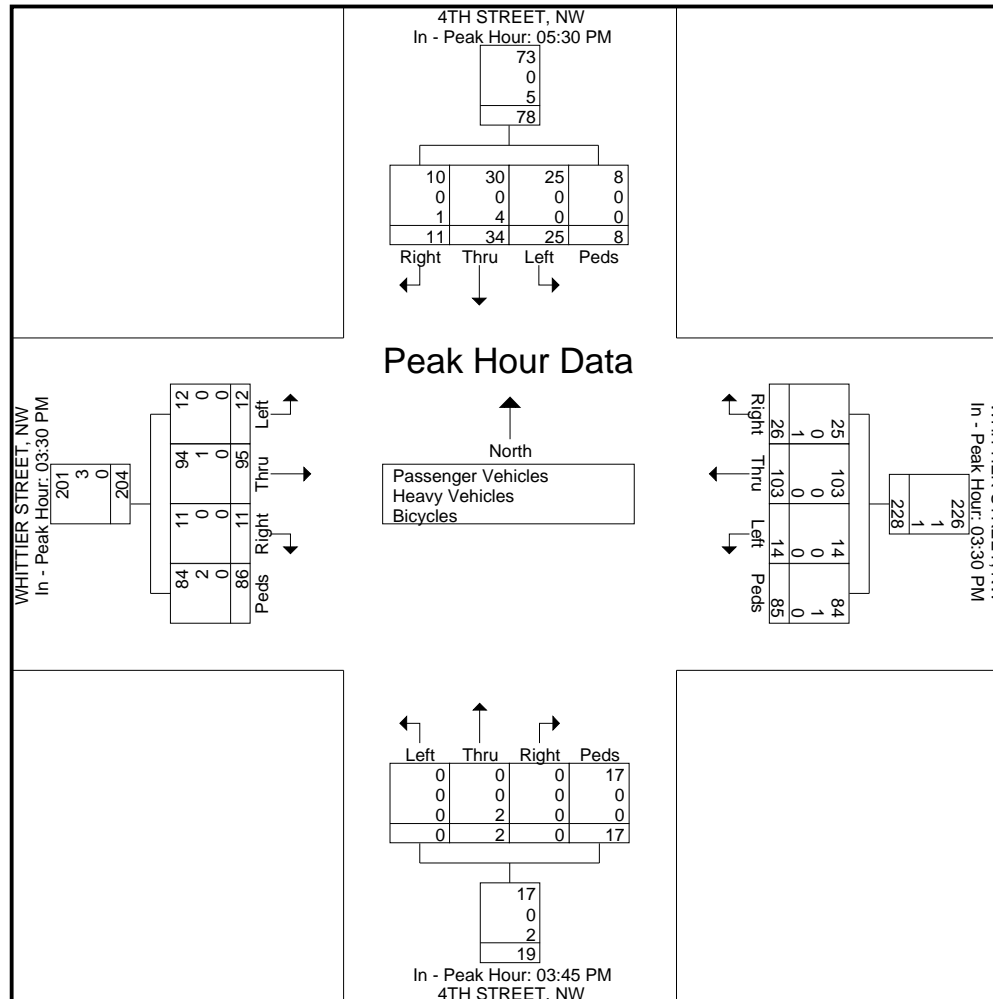
## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS

	4TH STREET, NW From North					WHITTIER STREET, NW From East					4TH STREET, NW From South					WHITTIER STREET, NW From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	05:30 PM					03:30 PM					03:45 PM					03:30 PM					
+0 mins.	2	5	7	2	16	5	<b>34</b>	4	13	56	0	0	0	7	7	3	27	1	31	62	
+15 mins.	1	11	7	3	22	5	24	4	<b>28</b>	<b>61</b>	0	0	0	3	3	<b>6</b>	<b>35</b>	<b>6</b>	<b>35</b>	<b>82</b>	
+30 mins.	<b>5</b>	9	3	0	17	<b>10</b>	21	4	23	58	0	0	0	1	1	0	16	2	17	35	
+45 mins.	3	9	<b>8</b>	3	<b>23</b>	6	24	2	21	53	0	<b>2</b>	0	6	<b>8</b>	2	17	3	3	25	
Total Volume	11	34	25	8	78	26	103	14	85	228	0	2	0	17	19	11	95	12	86	204	
% App. Total	14.1	43.6	32.1	10.3		11.4	45.2	6.1	37.3		0	10.5	0	89.5		5.4	46.6	5.9	42.2		
PHF	.550	.773	.781	.667	.848	.650	.757	.875	.759	.934	.000	.250	.000	.607	.594	.458	.679	.500	.614	.622	
Passenger Vehicles	10	30	25	8	73	25	103	14	84	226	0	0	0	17	17	11	94	12	84	201	
% Passenger Vehicles	90.9	88.2	100	100	93.6	96.2	100	100	98.8	99.1	0	0	0	100	89.5	100	98.9	100	97.7	98.5	
Heavy Vehicles	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	2	3
% Heavy Vehicles	0	0	0	0	0	0	0	0	1.2	0.4	0	0	0	0	0	0	1.1	0	2.3	1.5	
Bicycles	1	4	0	0	5	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0
% Bicycles	9.1	11.8	0	0	6.4	3.8	0	0	0	0.4	0	100	0	0	10.5	0	0	0	0	0	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateng.com

## 4TH STREET, NW AND WHITTIER STREET NW PEAK HOURS





# 48-HOUR SPEED AND VOLUME COUNT

## Weekday Traffic Data Collection

### *Locations:*

1. 300 block of Aspen Street, NW
2. 6700 block of 4<sup>th</sup> Street, NW
3. 300 block of Whittier Street, NW
4. 300 block of Van Buren Street, NW

### *Prepared By:*



SAMMAT ENGINEERING SERVICES, LLC  
P.O. BOX 780  
MOUNT AIRY, MD 21771  
[www.sammateng.com](http://www.sammateng.com)

September 30<sup>th</sup>, 2021

## SUMMARY

SAMMAT Engineering Services, LLC presents this report to provide vehicular volume and classification data obtained from September 21<sup>st</sup> through September 23<sup>rd</sup>, 2021 at the following locations in the District of Columbia (DC):

- Location 1: 300 block of Aspen Street, NW
- Location 2: 6700 block of 4th Street, NW
- Location 3: 300 block of Whittier Street, NW
- Location 4: 300 block of Van Buren Street, NW

Figure 1 presents the location of the sites with respect to the surrounding roadway network. Tables 1 through 4 present the summary of the 72-hour volume counts and the directional speed data, which includes the 85<sup>th</sup> percentile speeds, the mean (average) speeds, and the 10 MPH pace. The peak-hours for the morning peak started from 7:00 AM – 10:00 AM and 4:00 PM – 7:00 PM for the evening peak. Figures 2 through 4 show photographs of the tube installation for Locations 1 through 4.

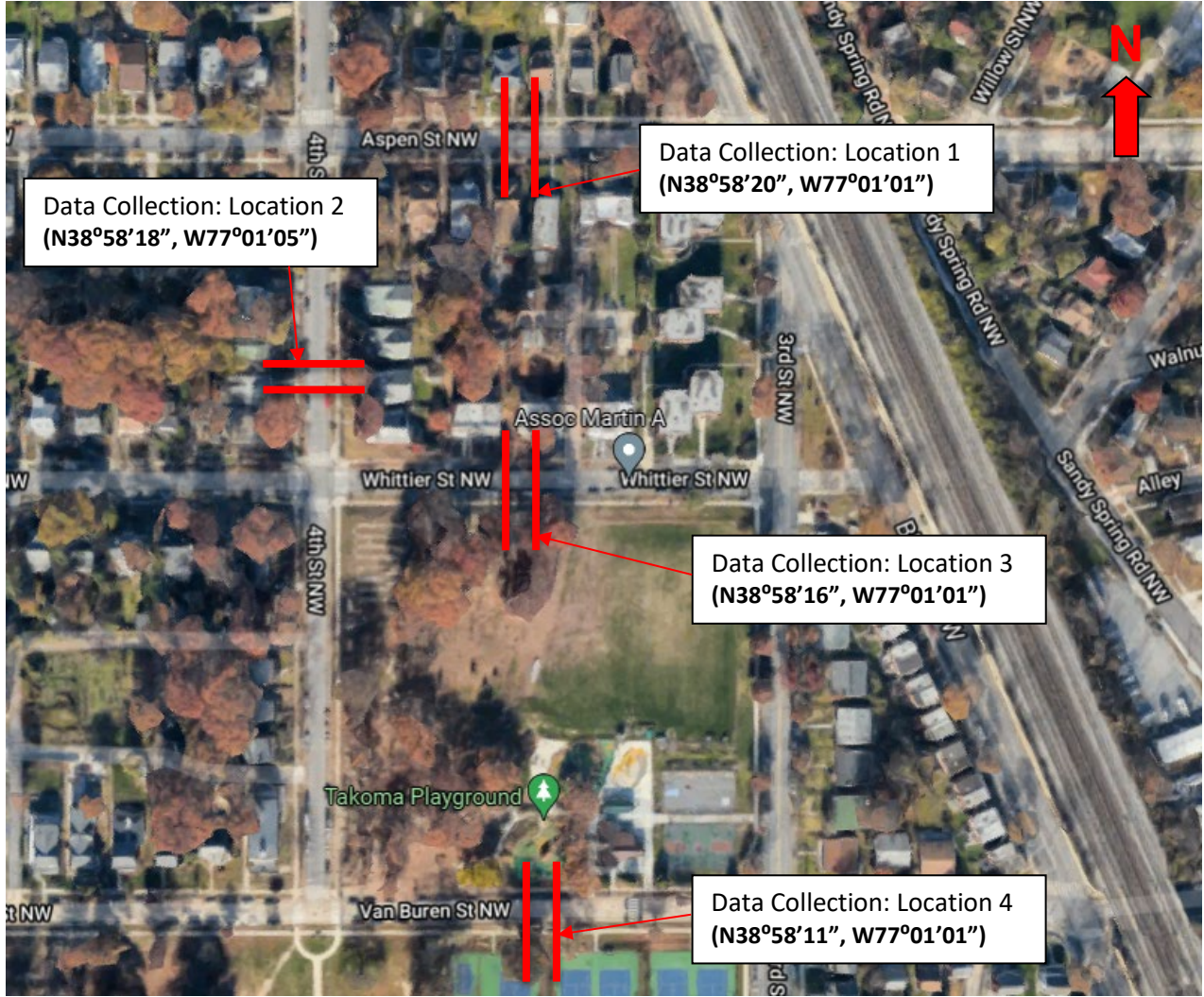


FIGURE 1: Speed and Volume Data Collection Locations

Table 1: Summary of 72-hour Speed and Volume Characteristics at Location 1

300 Aspen Street, NW	Direction	85th Percentile	Mean	10 MPH Pace	Peak Hour Volume	ADT
Day 1	EB	19	16	11-20	249	4,379
	WB	28	22	21-30	246	
	EB+WB	24	18	16-25	423	
Day 2	EB	19	16	11-20	254	4,317
	WB	29	22	21-30	206	
	EB+WB	25	19	16-25	424	
Day 3	EB	18	14	11-20	231	3,671
	WB	26	20	16-25	198	
	EB+WB	22	17	11-20	231	
Combined	EB	19	15	11-20	1,603	4,122
	WB	28	21	19-28	1,150	
	EB+WB	24	18	11-20	2,751	

**Table 2: Summary of 72-hour Speed and Volume Characteristics at Location 2**

6700 4 <sup>th</sup> Street, NW	Direction	85 <sup>th</sup> Percentile	Mean	10 MPH Pace	Peak Hour Volume	ADT
Day 1	SB	27	22	16-25	73	1,070
	NB	23	19	16-25	58	
	SB+NB	26	21	16-25	124	
Day 2	SB	24	19	16-25	92	1,084
	NB	24	19	16-25	55	
	SB+NB	24	19	16-25	141	
Day 3	SB	25	20	16-25	76	1,047
	NB	24	19	16-25	54	
	SB+NB	24	20	16-25	115	
Combined	SB	26	20	16-25	92	1,067
	NB	24	19	16-25	58	
	SB+NB	24	20	16-25	141	

**Table 3: Summary of 72-hour Speed and Volume Characteristics at Location 3**

300 Whittier Street, NW	Direction	85 <sup>th</sup> Percentile	Mean	10 MPH Pace	Peak Hour Volume	ADT
Day 1	WB	27	21	16-25	232	2,379
	EB	23	18	16-25	94	
	WB+EB	25	20	16-25	323	
Day 2	WB	27	22	16-25	212	2,229
	EB	23	19	16-25	96	
	WB+EB	26	21	16-25	294	
Day 3	WB	26	19	16-25	246	2,369
	EB	31	21	16-25	103	
	WB+EB	27	20	16-25	328	
Combined	WB	27	21	16-25	246	2,324
	EB	24	19	16-25	103	
	WB+EB	26	20	16-25	328	

**Table 4: Summary of 72-hour Speed and Volume Characteristics at Location 4**

300 Van Buren Street, NW	Direction	85 <sup>th</sup> Percentile	Mean	10 MPH Pace	Peak Hour Volume	ADT
Day 1	EB	14	11	6-15	41	453
Day 2	EB	14	11	6-15	65	473
Day 3	EB	14	10	6-15	54	456
Combined	EB	14	10	6-15	65	461



**FIGURE 2: Tubes on 300 block of Aspen Street, NW**



**FIGURE 3: Tubes on 6700 block of 4<sup>th</sup> Street, NW**



**FIGURE 4: Tubes on 300 block of Whittier Street, NW**



**FIGURE 5: Tubes on 300 block of Van Buren Street, NW**

## **APPENDIX**



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF ASPEN STREET, NW - VOLUME

Start Time	21-Sep-21 Tue		EB		WB		Combined		22-Sep Wed		EB		WB		Combined	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	5	36	4	30	9	66	5	39	2	13	7	52				
12:15	4	33	0	25	4	58	2	32	4	26	6	58				
12:30	4	36	3	42	7	78	1	35	3	26	4	61				
12:45	1	35	1	33	2	68	4	26	4	37	8	63				
01:00	3	37	1	28	4	65	3	42	1	30	4	72				
01:15	2	44	2	26	4	70	2	37	2	32	4	69				
01:30	1	37	1	22	2	59	1	37	1	43	2	80				
01:45	2	35	0	29	2	64	0	45	1	30	1	75				
02:00	2	35	1	29	3	64	0	49	1	29	1	78				
02:15	1	37	1	33	2	70	1	37	0	33	1	70				
02:30	1	41	2	33	3	74	2	43	1	30	3	73				
02:45	0	45	0	36	0	81	2	31	0	37	2	68				
03:00	2	49	2	43	4	92	0	60	2	36	2	96				
03:15	3	44	0	40	3	84	2	69	0	31	2	100				
03:30	3	51	1	15	4	66	0	62	0	21	0	83				
03:45	1	29	0	25	1	54	1	38	1	15	2	53				
04:00	0	63	1	31	1	94	1	50	3	20	4	70				
04:15	1	62	1	33	2	95	3	62	0	43	3	105				
04:30	2	62	2	33	4	95	1	65	3	44	4	109				
04:45	1	62	1	26	2	88	3	69	0	41	3	110				
05:00	6	63	1	45	7	108	3	58	2	44	5	102				
05:15	9	53	5	26	14	79	9	56	10	29	19	85				
05:30	9	49	8	46	17	95	4	37	4	24	8	61				
05:45	6	63	9	35	15	98	11	64	6	32	17	96				
06:00	4	46	6	53	10	99	12	42	7	36	19	78				
06:15	8	58	15	36	23	94	13	37	17	37	30	74				
06:30	10	35	24	31	34	66	11	40	22	35	33	75				
06:45	15	32	25	28	40	60	17	35	30	32	47	67				
07:00	20	33	39	17	59	50	14	31	35	24	49	55				
07:15	31	29	56	19	87	48	22	27	33	29	55	56				
07:30	32	27	69	22	101	49	38	28	39	23	77	51				
07:45	39	28	79	23	118	51	43	21	68	24	111	45				
08:00	41	28	42	10	83	38	54	26	55	24	109	50				
08:15	74	17	47	17	121	34	74	24	44	15	118	39				
08:30	35	26	33	12	68	38	47	20	39	13	86	33				
08:45	44	15	33	9	77	24	17	12	23	14	40	26				
09:00	30	15	32	16	62	31	30	20	30	13	60	33				
09:15	35	16	29	15	64	31	38	18	33	10	71	28				
09:30	32	9	19	12	51	21	26	15	27	15	53	30				
09:45	33	11	24	3	57	14	30	15	28	10	58	25				
10:00	33	8	36	12	69	20	29	10	22	6	51	16				
10:15	28	13	34	7	62	20	26	8	28	9	54	17				
10:30	34	15	21	4	55	19	35	5	18	4	53	9				
10:45	32	10	28	8	60	18	29	3	16	7	45	10				
11:00	32	4	23	3	55	7	31	5	34	8	65	13				
11:15	39	13	29	5	68	18	27	10	28	11	55	21				
11:30	33	5	24	5	57	10	33	3	26	3	59	6				
11:45	27	9	17	4	44	13	34	3	22	2	56	5				
Total	810	1603	831	1135	1641	2738	791	1601	775	1150	1566	2751				
Day Total	2413		1966		4379		2392		1925		4317					
% Total	18.5%	36.6%	19.0%	25.9%			18.3%	37.1%	18.0%	26.6%						
Peak	-	08:00	04:00	07:15	05:30	07:30	04:15	-	07:45	04:15	07:30	04:15	07:45	04:15		
Vol.	-	194	249	246	170	423	386	-	218	254	206	172	424	426		
P.H.F.		0.655	0.988	0.778	0.802	0.874	0.894		0.736	0.920	0.757	0.977	0.898	0.968		

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF ASPEN STREET, NW - VOLUME

Start Time	23-Sep-21		EB		WB		Combined		24-Sep	EB		WB		Combined	
	Thu		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		Fri	A.M.	P.M.	A.M.	P.M.	A.M.
12:00			7	0	5	0	12	0		*	*	*	*	*	*
12:15			0	1	3	0	3	1		*	*	*	*	*	*
12:30			4	2	2	3	6	5		*	*	*	*	*	*
12:45			1	12	3	15	4	27		*	*	*	*	*	*
01:00			3	16	0	25	3	41		*	*	*	*	*	*
01:15			0	27	2	16	2	43		*	*	*	*	*	*
01:30			1	33	1	23	2	56		*	*	*	*	*	*
01:45			1	43	2	26	3	69		*	*	*	*	*	*
02:00			0	31	2	28	2	59		*	*	*	*	*	*
02:15			1	33	0	26	1	59		*	*	*	*	*	*
02:30			0	51	1	34	1	85		*	*	*	*	*	*
02:45			0	37	0	32	0	69		*	*	*	*	*	*
03:00			1	<b>48</b>	3	29	4	<b>77</b>		*	*	*	*	*	*
03:15			2	<b>63</b>	0	33	2	<b>96</b>		*	*	*	*	*	*
03:30			0	<b>71</b>	0	35	0	<b>106</b>		*	*	*	*	*	*
03:45			0	<b>64</b>	1	33	1	<b>97</b>		*	*	*	*	*	*
04:00			1	47	2	24	3	71		*	*	*	*	*	*
04:15			3	55	1	21	4	76		*	*	*	*	*	*
04:30			0	70	2	<b>35</b>	2	105		*	*	*	*	*	*
04:45			5	52	3	<b>47</b>	8	99		*	*	*	*	*	*
05:00			4	54	1	<b>28</b>	5	82		*	*	*	*	*	*
05:15			5	49	7	<b>23</b>	12	72		*	*	*	*	*	*
05:30			9	35	10	29	19	64		*	*	*	*	*	*
05:45			6	49	7	31	13	80		*	*	*	*	*	*
06:00			4	50	3	38	7	88		*	*	*	*	*	*
06:15			12	62	18	28	30	90		*	*	*	*	*	*
06:30			11	30	23	32	34	62		*	*	*	*	*	*
06:45			17	23	26	28	43	51		*	*	*	*	*	*
07:00			21	27	39	22	60	49		*	*	*	*	*	*
07:15			27	34	<b>61</b>	16	<b>88</b>	50		*	*	*	*	*	*
07:30			23	23	<b>32</b>	21	<b>55</b>	44		*	*	*	*	*	*
07:45			31	29	<b>58</b>	18	<b>89</b>	47		*	*	*	*	*	*
08:00			<b>63</b>	25	<b>47</b>	24	<b>110</b>	49		*	*	*	*	*	*
08:15			<b>36</b>	15	28	14	64	29		*	*	*	*	*	*
08:30			<b>34</b>	20	13	16	47	36		*	*	*	*	*	*
08:45			<b>34</b>	16	42	11	76	27		*	*	*	*	*	*
09:00			30	20	40	13	70	33		*	*	*	*	*	*
09:15			28	15	24	14	52	29		*	*	*	*	*	*
09:30			25	18	17	8	42	26		*	*	*	*	*	*
09:45			21	13	18	9	39	22		*	*	*	*	*	*
10:00			24	14	22	5	46	19		*	*	*	*	*	*
10:15			35	10	26	12	61	22		*	*	*	*	*	*
10:30			23	9	22	8	45	17		*	*	*	*	*	*
10:45			26	12	22	9	48	21		*	*	*	*	*	*
11:00			26	6	15	5	41	11		*	*	*	*	*	*
11:15			2	11	0	9	2	20		*	*	*	*	*	*
11:30			1	3	0	11	1	14		*	*	*	*	*	*
11:45			1	6	0	7	1	13		*	*	*	*	*	*
Total			609	1434	654	974	1263	2408		0	0	0	0	0	0
Day Total			2043		1628		3671			0		0		0	
% Total			16.6%	39.1%	17.8%	26.5%				0.0%	0.0%	0.0%	0.0%		
Peak	-	08:00	03:00	07:15	04:30	07:15	03:00		-	-	-	-	-	-	-
Vol.	-	167	246	198	133	342	376		-	-	-	-	-	-	-
P.H.F.		0.663	0.866	0.811	0.707	0.777	0.887								
ADT		ADT 4,122	AADT 4,122												

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

EB

Start Time	1 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 9999	Total
09/21/21	0	1	12	1	0	0	0	0	0	0	0	0	0	0	14
01:00	0	0	7	1	0	0	0	0	0	0	0	0	0	0	8
02:00	0	1	2	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	2	4	3	0	0	0	0	0	0	0	0	0	0	9
04:00	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4
05:00	1	0	25	3	1	0	0	0	0	0	0	0	0	0	30
06:00	0	3	25	9	0	0	0	0	0	0	0	0	0	0	37
07:00	14	9	89	10	0	0	0	0	0	0	0	0	0	0	122
08:00	37	47	101	9	0	0	0	0	0	0	0	0	0	0	194
09:00	10	16	95	9	0	0	0	0	0	0	0	0	0	0	130
10:00	7	25	84	11	0	0	0	0	0	0	0	0	0	0	127
11:00	10	23	86	12	0	0	0	0	0	0	0	0	0	0	131
12 PM	7	30	90	13	0	0	0	0	0	0	0	0	0	0	140
13:00	15	30	99	9	0	0	0	0	0	0	0	0	0	0	153
14:00	6	26	114	12	0	0	0	0	0	0	0	0	0	0	158
15:00	43	59	69	2	0	0	0	0	0	0	0	0	0	0	173
16:00	46	80	118	5	0	0	0	0	0	0	0	0	0	0	249
17:00	47	57	115	9	0	0	0	0	0	0	0	0	0	0	228
18:00	16	46	100	9	0	0	0	0	0	0	0	0	0	0	171
19:00	7	12	91	7	0	0	0	0	0	0	0	0	0	0	117
20:00	4	15	62	4	1	0	0	0	0	0	0	0	0	0	86
21:00	1	5	37	8	0	0	0	0	0	0	0	0	0	0	51
22:00	2	3	35	6	0	0	0	0	0	0	0	0	0	0	46
23:00	0	3	23	5	0	0	0	0	0	0	0	0	0	0	31
Total	273	493	1486	159	2	0	0	0	0	0	0	0	0	0	2413

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

EB

Start Time	1 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 9999	Total
09/22/21	0	2	10	0	0	0	0	0	0	0	0	0	0	0	12
01:00	0	0	5	1	0	0	0	0	0	0	0	0	0	0	6
02:00	0	0	2	2	1	0	0	0	0	0	0	0	0	0	5
03:00	1	0	0	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	4	4	0	0	0	0	0	0	0	0	0	0	8
05:00	1	0	17	8	1	0	0	0	0	0	0	0	0	0	27
06:00	0	4	38	11	0	0	0	0	0	0	0	0	0	0	53
07:00	39	8	64	6	0	0	0	0	0	0	0	0	0	0	117
08:00	36	48	95	13	0	0	0	0	0	0	0	0	0	0	192
09:00	3	12	92	17	0	0	0	0	0	0	0	0	0	0	124
10:00	7	14	89	9	0	0	0	0	0	0	0	0	0	0	119
11:00	9	10	99	6	1	0	0	0	0	0	0	0	0	0	125
12 PM	11	23	86	12	0	0	0	0	0	0	0	0	0	0	132
13:00	11	45	98	7	0	0	0	0	0	0	0	0	0	0	161
14:00	14	35	98	13	0	0	0	0	0	0	0	0	0	0	160
15:00	38	66	120	5	0	0	0	0	0	0	0	0	0	0	229
16:00	46	80	116	4	0	0	0	0	0	0	0	0	0	0	246
17:00	54	56	103	2	0	0	0	0	0	0	0	0	0	0	215
18:00	8	25	111	9	1	0	0	0	0	0	0	0	0	0	154
19:00	9	16	75	7	0	0	0	0	0	0	0	0	0	0	107
20:00	6	18	53	4	1	0	0	0	0	0	0	0	0	0	82
21:00	3	10	51	4	0	0	0	0	0	0	0	0	0	0	68
22:00	1	7	14	4	0	0	0	0	0	0	0	0	0	0	26
23:00	0	4	12	5	0	0	0	0	0	0	0	0	0	0	21
Total	297	483	1452	155	5	0	0	0	0	0	0	0	0	0	2392

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	1	0	9	1	1	0	0	0	0	0	0	0	0	0	12
01:00	0	1	3	1	0	0	0	0	0	0	0	0	0	0	5
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	7	2	0	0	0	0	0	0	0	0	0	0	9
05:00	0	4	17	3	0	0	0	0	0	0	0	0	0	0	24
06:00	0	2	35	6	1	0	0	0	0	0	0	0	0	0	44
07:00	21	17	54	10	0	0	0	0	0	0	0	0	0	0	102
08:00	46	41	73	6	1	0	0	0	0	0	0	0	0	0	167
09:00	13	26	59	6	0	0	0	0	0	0	0	0	0	0	104
10:00	2	21	78	7	0	0	0	0	0	0	0	0	0	0	108
11:00	9	6	14	1	0	0	0	0	0	0	0	0	0	0	30
12 PM	5	3	7	0	0	0	0	0	0	0	0	0	0	0	15
13:00	8	55	53	3	0	0	0	0	0	0	0	0	0	0	119
14:00	15	66	71	0	0	0	0	0	0	0	0	0	0	0	152
15:00	46	127	72	1	0	0	0	0	0	0	0	0	0	0	246
16:00	67	103	54	0	0	0	0	0	0	0	0	0	0	0	224
17:00	48	84	54	1	0	0	0	0	0	0	0	0	0	0	187
18:00	21	71	71	2	0	0	0	0	0	0	0	0	0	0	165
19:00	11	35	66	1	0	0	0	0	0	0	0	0	0	0	113
20:00	4	21	51	0	0	0	0	0	0	0	0	0	0	0	76
21:00	4	12	47	3	0	0	0	0	0	0	0	0	0	0	66
22:00	3	16	26	0	0	0	0	0	0	0	0	0	0	0	45
23:00	1	6	18	1	0	0	0	0	0	0	0	0	0	0	26
Total	325	719	941	55	3	0	0	0	0	0	0	0	0	0	2043
Grand Total	895	1695	3879	369	10	0	0	0	0	0	0	0	0	0	6848

15th Percentile : 10 MPH  
 50th Percentile : 16 MPH  
 85th Percentile : 19 MPH  
 95th Percentile : 20 MPH

Stats  
 Mean Speed(Average) : 15 MPH  
 10 MPH Pace Speed : 11-20 MPH  
 Number in Pace : 5574  
 Percent in Pace : 81.4%  
 Number of Vehicles > 20 MPH : 379  
 Percent of Vehicles > 20 MPH : 5.5%

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

WB

Start Time	1 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 9999	Total
09/21/21	1	0	1	1	3	2	0	0	0	0	0	0	0	0	8
01:00	0	0	0	0	1	3	0	0	0	0	0	0	0	0	4
02:00	0	0	0	2	0	2	0	0	0	0	0	0	0	0	4
03:00	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
04:00	0	0	0	3	0	2	0	0	0	0	0	0	0	0	5
05:00	0	0	1	10	9	1	1	0	0	0	1	0	0	0	23
06:00	3	2	16	17	19	10	1	2	0	0	0	0	0	0	70
07:00	59	35	46	50	34	12	5	2	0	0	0	0	0	0	243
08:00	28	20	33	35	25	11	2	1	0	0	0	0	0	0	155
09:00	10	9	20	30	25	9	1	0	0	0	0	0	0	0	104
10:00	8	3	19	32	42	11	4	0	0	0	0	0	0	0	119
11:00	4	6	17	37	22	5	2	0	0	0	0	0	0	0	93
12 PM	4	10	28	45	34	7	2	0	0	0	0	0	0	0	130
13:00	11	10	20	37	16	8	2	1	0	0	0	0	0	0	105
14:00	12	6	31	30	29	21	1	1	0	0	0	0	0	0	131
15:00	29	8	17	34	23	11	1	0	0	0	0	0	0	0	123
16:00	19	6	25	32	28	9	3	0	1	0	0	0	0	0	123
17:00	17	3	29	45	42	8	5	3	0	0	0	0	0	0	152
18:00	14	7	33	52	32	9	1	0	0	0	0	0	0	0	148
19:00	8	4	15	31	18	3	1	1	0	0	0	0	0	0	81
20:00	2	2	9	20	10	2	2	1	0	0	0	0	0	0	48
21:00	0	2	6	17	19	1	1	0	0	0	0	0	0	0	46
22:00	0	0	5	13	9	3	1	0	0	0	0	0	0	0	31
23:00	1	0	3	7	4	1	1	0	0	0	0	0	0	0	17
Total	230	133	374	580	444	151	40	12	1	0	1	0	0	0	1966

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

WB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/22/21	1	0	0	4	3	2	2	0	0	1	0	0	0	0	13
01:00	0	0	0	2	1	2	0	0	0	0	0	0	0	0	5
02:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
03:00	0	0	1	0	0	1	0	0	0	0	1	0	0	0	3
04:00	0	0	0	3	3	0	0	0	0	0	0	0	0	0	6
05:00	0	0	1	7	8	3	1	2	0	0	0	0	0	0	22
06:00	2	3	9	17	26	16	2	0	1	0	0	0	0	0	76
07:00	28	24	38	33	34	12	4	1	1	0	0	0	0	0	175
08:00	36	14	36	35	27	12	0	1	0	0	0	0	0	0	161
09:00	15	8	19	41	27	4	3	1	0	0	0	0	0	0	118
10:00	6	3	6	29	28	9	3	0	0	0	0	0	0	0	84
11:00	9	8	17	27	39	8	2	0	0	0	0	0	0	0	110
12 PM	8	6	26	29	21	9	3	0	0	0	0	0	0	0	102
13:00	15	6	21	43	37	10	1	0	1	0	0	1	0	0	135
14:00	17	3	25	38	35	10	0	1	0	0	0	0	0	0	129
15:00	18	5	16	28	26	9	1	0	0	0	0	0	0	0	103
16:00	24	7	32	38	34	8	4	1	0	0	0	0	0	0	148
17:00	22	4	18	40	36	8	1	0	0	0	0	0	0	0	129
18:00	16	2	23	48	35	12	4	0	0	0	0	0	0	0	140
19:00	10	8	33	28	17	3	1	0	0	0	0	0	0	0	100
20:00	2	0	11	15	30	6	2	0	0	0	0	0	0	0	66
21:00	4	1	5	20	10	8	0	0	0	0	0	0	0	0	48
22:00	1	0	4	11	5	4	1	0	0	0	0	0	0	0	26
23:00	1	0	4	6	8	4	1	0	0	0	0	0	0	0	24
Total	235	102	345	543	491	160	36	7	3	1	1	1	0	0	1925

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

WB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	0	0	4	5	3	1	0	0	0	0	0	0	0	0	13
01:00	0	0	0	1	3	1	0	0	0	0	0	0	0	0	5
02:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
03:00	0	0	0	1	0	2	0	1	0	0	0	0	0	0	4
04:00	0	0	1	2	3	1	0	1	0	0	0	0	0	0	8
05:00	2	0	2	8	7	6	0	0	0	0	0	0	0	0	25
06:00	6	0	9	14	27	10	3	1	0	0	0	0	0	0	70
07:00	30	31	36	46	29	15	1	1	1	0	0	0	0	0	190
08:00	30	11	27	30	26	5	1	0	0	0	0	0	0	0	130
09:00	11	8	17	37	17	9	0	0	0	0	0	0	0	0	99
10:00	5	2	17	39	20	7	1	1	0	0	0	0	0	0	92
11:00	1	1	1	6	6	0	0	0	0	0	0	0	0	0	15
12 PM	1	1	5	5	4	2	0	0	0	0	0	0	0	0	18
13:00	13	5	31	32	9	0	0	0	0	0	0	0	0	0	90
14:00	25	2	39	42	12	0	0	0	0	0	0	0	0	0	120
15:00	27	11	41	44	5	2	0	0	0	0	0	0	0	0	130
16:00	19	9	48	43	8	0	0	0	0	0	0	0	0	0	127
17:00	28	1	33	36	11	1	1	0	0	0	0	0	0	0	111
18:00	22	7	37	51	9	0	0	0	0	0	0	0	0	0	126
19:00	15	3	26	30	3	0	0	0	0	0	0	0	0	0	77
20:00	6	6	26	16	8	3	0	0	0	0	0	0	0	0	65
21:00	2	3	14	18	6	1	0	0	0	0	0	0	0	0	44
22:00	1	2	14	10	5	2	0	0	0	0	0	0	0	0	34
23:00	4	3	12	8	5	0	0	0	0	0	0	0	0	0	32
Total	248	106	441	526	226	68	7	5	1	0	0	0	0	0	1628
Grand Total	713	341	1160	1649	1161	379	83	24	5	1	2	1	0	0	5519

15th Percentile : 11 MPH  
 50th Percentile : 21 MPH  
 85th Percentile : 28 MPH  
 95th Percentile : 32 MPH

Stats  
 Mean Speed(Average) : 21 MPH  
 10 MPH Pace Speed : 19-28 MPH  
 Number in Pace : 2810  
 Percent in Pace : 50.9%  
 Number of Vehicles > 20 MPH : 3305  
 Percent of Vehicles > 20 MPH : 59.9%



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

EB, WB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/21/21	1	1	13	2	3	2	0	0	0	0	0	0	0	0	22
01:00	0	0	7	1	1	3	0	0	0	0	0	0	0	0	12
02:00	0	1	2	3	0	2	0	0	0	0	0	0	0	0	8
03:00	0	2	4	3	0	0	3	0	0	0	0	0	0	0	12
04:00	0	0	3	4	0	2	0	0	0	0	0	0	0	0	9
05:00	1	0	26	13	10	1	1	0	0	0	1	0	0	0	53
06:00	3	5	41	26	19	10	1	2	0	0	0	0	0	0	107
07:00	73	44	135	60	34	12	5	2	0	0	0	0	0	0	365
08:00	65	67	134	44	25	11	2	1	0	0	0	0	0	0	349
09:00	20	25	115	39	25	9	1	0	0	0	0	0	0	0	234
10:00	15	28	103	43	42	11	4	0	0	0	0	0	0	0	246
11:00	14	29	103	49	22	5	2	0	0	0	0	0	0	0	224
12 PM	11	40	118	58	34	7	2	0	0	0	0	0	0	0	270
13:00	26	40	119	46	16	8	2	1	0	0	0	0	0	0	258
14:00	18	32	145	42	29	21	1	1	0	0	0	0	0	0	289
15:00	72	67	86	36	23	11	1	0	0	0	0	0	0	0	296
16:00	65	86	143	37	28	9	3	0	1	0	0	0	0	0	372
17:00	64	60	144	54	42	8	5	3	0	0	0	0	0	0	380
18:00	30	53	133	61	32	9	1	0	0	0	0	0	0	0	319
19:00	15	16	106	38	18	3	1	1	0	0	0	0	0	0	198
20:00	6	17	71	24	11	2	2	1	0	0	0	0	0	0	134
21:00	1	7	43	25	19	1	1	0	0	0	0	0	0	0	97
22:00	2	3	40	19	9	3	1	0	0	0	0	0	0	0	77
23:00	1	3	26	12	4	1	1	0	0	0	0	0	0	0	48
Total	503	626	1860	739	446	151	40	12	1	0	1	0	0	0	4379

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

EB, WB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/22/21	1	2	10	4	3	2	2	0	0	1	0	0	0	0	25
01:00	0	0	5	3	1	2	0	0	0	0	0	0	0	0	11
02:00	0	0	2	3	2	0	0	0	0	0	0	0	0	0	7
03:00	1	0	1	2	0	1	0	0	0	0	1	0	0	0	6
04:00	0	0	4	7	3	0	0	0	0	0	0	0	0	0	14
05:00	1	0	18	15	9	3	1	2	0	0	0	0	0	0	49
06:00	2	7	47	28	26	16	2	0	1	0	0	0	0	0	129
07:00	67	32	102	39	34	12	4	1	1	0	0	0	0	0	292
08:00	72	62	131	48	27	12	0	1	0	0	0	0	0	0	353
09:00	18	20	111	58	27	4	3	1	0	0	0	0	0	0	242
10:00	13	17	95	38	28	9	3	0	0	0	0	0	0	0	203
11:00	18	18	116	33	40	8	2	0	0	0	0	0	0	0	235
12 PM	19	29	112	41	21	9	3	0	0	0	0	0	0	0	234
13:00	26	51	119	50	37	10	1	0	1	0	0	1	0	0	296
14:00	31	38	123	51	35	10	0	1	0	0	0	0	0	0	289
15:00	56	71	136	33	26	9	1	0	0	0	0	0	0	0	332
16:00	70	87	148	42	34	8	4	1	0	0	0	0	0	0	394
17:00	76	60	121	42	36	8	1	0	0	0	0	0	0	0	344
18:00	24	27	134	57	36	12	4	0	0	0	0	0	0	0	294
19:00	19	24	108	35	17	3	1	0	0	0	0	0	0	0	207
20:00	8	18	64	19	31	6	2	0	0	0	0	0	0	0	148
21:00	7	11	56	24	10	8	0	0	0	0	0	0	0	0	116
22:00	2	7	18	15	5	4	1	0	0	0	0	0	0	0	52
23:00	1	4	16	11	8	4	1	0	0	0	0	0	0	0	45
Total	532	585	1797	698	496	160	36	7	3	1	1	1	0	0	4317

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF ASPEN STREET, NW - SPEED

EB, WB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	1	0	13	6	4	1	0	0	0	0	0	0	0	0	25
01:00	0	1	3	2	3	1	0	0	0	0	0	0	0	0	10
02:00	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4
03:00	0	2	1	1	0	2	0	1	0	0	0	0	0	0	7
04:00	0	0	8	4	3	1	0	1	0	0	0	0	0	0	17
05:00	2	4	19	11	7	6	0	0	0	0	0	0	0	0	49
06:00	6	2	44	20	28	10	3	1	0	0	0	0	0	0	114
07:00	51	48	90	56	29	15	1	1	1	0	0	0	0	0	292
08:00	76	52	100	36	27	5	1	0	0	0	0	0	0	0	297
09:00	24	34	76	43	17	9	0	0	0	0	0	0	0	0	203
10:00	7	23	95	46	20	7	1	1	0	0	0	0	0	0	200
11:00	10	7	15	7	6	0	0	0	0	0	0	0	0	0	45
12 PM	6	4	12	5	4	2	0	0	0	0	0	0	0	0	33
13:00	21	60	84	35	9	0	0	0	0	0	0	0	0	0	209
14:00	40	68	110	42	12	0	0	0	0	0	0	0	0	0	272
15:00	73	138	113	45	5	2	0	0	0	0	0	0	0	0	376
16:00	86	112	102	43	8	0	0	0	0	0	0	0	0	0	351
17:00	76	85	87	37	11	1	1	0	0	0	0	0	0	0	298
18:00	43	78	108	53	9	0	0	0	0	0	0	0	0	0	291
19:00	26	38	92	31	3	0	0	0	0	0	0	0	0	0	190
20:00	10	27	77	16	8	3	0	0	0	0	0	0	0	0	141
21:00	6	15	61	21	6	1	0	0	0	0	0	0	0	0	110
22:00	4	18	40	10	5	2	0	0	0	0	0	0	0	0	79
23:00	5	9	30	9	5	0	0	0	0	0	0	0	0	0	58
Total	573	825	1382	581	229	68	7	5	1	0	0	0	0	0	3671
Grand Total	1608	2036	5039	2018	1171	379	83	24	5	1	2	1	0	0	12367

15th Percentile : 10 MPH  
 50th Percentile : 17 MPH  
 85th Percentile : 24 MPH  
 95th Percentile : 29 MPH

Stats  
 Mean Speed(Average) : 18 MPH  
 10 MPH Pace Speed : 11-20 MPH  
 Number in Pace : 7075  
 Percent in Pace : 57.2%  
 Number of Vehicles > 20 MPH : 3684  
 Percent of Vehicles > 20 MPH : 29.8%

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - VOLUME

Start Time	21-Sep-21 Tue		SB		NB		Combined		22-Sep Wed	SB		NB		Combined	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	0	9	0	8	0	17	0	17	0	3	1	8	1	11	
12:15	0	13	0	4	0	17	0	17	0	8	0	4	0	12	
12:30	1	7	1	3	2	10	0	10	0	15	0	4	0	19	
12:45	0	14	0	8	0	22	0	22	0	12	0	10	0	22	
01:00	0	7	2	3	2	10	0	10	0	9	0	1	0	10	
01:15	1	11	0	3	1	14	0	14	0	5	0	7	0	12	
01:30	0	8	0	3	0	11	0	11	0	8	0	3	0	11	
01:45	0	4	0	4	0	8	0	8	0	5	0	6	0	11	
02:00	0	5	0	7	0	12	0	12	0	9	0	5	0	14	
02:15	0	13	0	11	0	24	0	24	0	10	0	7	0	17	
02:30	1	13	0	2	1	15	0	15	0	14	0	9	0	23	
02:45	0	12	0	7	0	19	0	19	0	9	0	6	0	15	
03:00	0	9	0	10	0	19	0	19	0	12	1	9	1	21	
03:15	1	14	0	6	1	20	0	20	0	17	0	7	0	24	
03:30	0	17	0	9	0	26	1	26	1	12	0	7	1	19	
03:45	0	24	0	9	0	33	1	33	1	18	1	6	2	24	
04:00	0	11	0	12	0	23	0	23	0	15	0	12	0	27	
04:15	0	14	0	9	0	23	1	23	1	12	0	14	1	26	
04:30	0	15	0	5	0	20	0	20	0	16	1	10	1	26	
04:45	0	21	1	13	1	34	0	34	0	10	1	14	1	24	
05:00	0	10	0	17	0	27	1	27	1	15	2	14	3	29	
05:15	3	16	1	12	4	28	0	28	0	36	1	10	1	46	
05:30	0	12	2	15	2	27	1	27	1	15	0	14	1	29	
05:45	1	17	0	14	1	31	0	31	0	16	4	10	4	26	
06:00	1	18	2	10	3	28	2	28	2	14	1	11	3	25	
06:15	4	16	2	10	6	26	2	26	2	12	4	7	6	19	
06:30	2	5	3	7	5	12	5	12	5	16	1	8	6	24	
06:45	5	8	3	7	8	15	1	15	1	8	3	4	4	12	
07:00	8	10	6	5	14	15	6	15	6	9	5	2	11	11	
07:15	3	11	7	4	10	15	4	15	4	8	5	4	9	12	
07:30	10	6	7	2	17	8	7	8	7	6	12	8	19	14	
07:45	16	8	10	6	26	14	28	14	28	12	7	13	35	25	
08:00	21	9	16	6	37	15	21	15	21	8	14	5	35	13	
08:15	19	10	11	2	30	12	24	12	24	9	17	5	41	14	
08:30	17	5	14	1	31	6	19	6	19	4	11	1	30	5	
08:45	13	2	8	1	21	3	9	3	9	1	13	5	22	6	
09:00	6	4	4	1	10	5	9	5	9	1	5	1	14	2	
09:15	7	3	5	2	12	5	10	5	10	4	3	4	13	8	
09:30	7	3	10	1	17	4	2	4	2	5	5	1	7	6	
09:45	5	3	8	0	13	3	5	3	5	4	1	2	6	6	
10:00	6	3	5	0	11	3	10	3	10	0	3	0	13	0	
10:15	12	0	7	1	19	1	3	1	3	0	3	0	6	0	
10:30	5	0	6	1	11	1	11	1	11	3	9	2	20	5	
10:45	4	0	3	0	7	0	8	0	8	2	4	0	12	2	
11:00	6	3	7	1	13	4	4	4	4	1	2	0	6	1	
11:15	10	2	5	3	15	5	7	5	7	2	8	2	15	4	
11:30	6	1	7	0	13	1	7	1	7	0	0	2	7	2	
11:45	9	2	4	0	13	2	5	2	5	0	8	0	13	0	
<b>Total</b>	210	428	167	265	377	693	214	430	156	284	370	714			
<b>Day Total</b>	638		432		1070		644		440		1084				
<b>% Total</b>	19.6%	40.0%	15.6%	24.8%			19.7%	39.7%	14.4%	26.2%					
<b>Peak</b>	-	07:45	03:15	07:45	05:00	07:45	04:45	-	07:45	05:00	08:00	04:15	07:45	05:00	
<b>Vol.</b>	-	73	66	51	58	124	116	-	92	82	55	52	141	130	
<b>P.H.F.</b>		0.869	0.688	0.797	0.853	0.838	0.853		0.821	0.569	0.809	0.929	0.860	0.707	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - VOLUME

Start Time	23-Sep-21		SB		NB		Combined		24-Sep	SB		NB		Combined	
	Thu		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		Fri	A.M.	P.M.	A.M.	P.M.	A.M.
12:00			1	11	1	8	2	19		*	*	*	*	*	*
12:15			1	25	0	6	1	31		*	*	*	*	*	*
12:30			0	16	1	11	1	27		*	*	*	*	*	*
12:45			0	17	0	5	0	22		*	*	*	*	*	*
01:00			0	22	0	12	0	34		*	*	*	*	*	*
01:15			0	6	1	6	1	12		*	*	*	*	*	*
01:30			0	5	0	5	0	10		*	*	*	*	*	*
01:45			0	8	0	4	0	12		*	*	*	*	*	*
02:00			0	6	0	6	0	12		*	*	*	*	*	*
02:15			1	7	0	5	1	12		*	*	*	*	*	*
02:30			0	7	0	3	0	10		*	*	*	*	*	*
02:45			0	6	1	9	1	15		*	*	*	*	*	*
03:00			0	13	0	10	0	23		*	*	*	*	*	*
03:15			1	18	0	11	1	29		*	*	*	*	*	*
03:30			0	9	1	7	1	16		*	*	*	*	*	*
03:45			1	21	1	8	2	29		*	*	*	*	*	*
04:00			1	13	0	12	1	25		*	*	*	*	*	*
04:15			0	13	0	12	0	25		*	*	*	*	*	*
04:30			0	15	1	8	1	23		*	*	*	*	*	*
04:45			1	14	0	13	1	27		*	*	*	*	*	*
05:00			0	13	0	15	0	28		*	*	*	*	*	*
05:15			1	20	3	11	4	31		*	*	*	*	*	*
05:30			1	13	1	15	2	28		*	*	*	*	*	*
05:45			1	16	1	12	2	28		*	*	*	*	*	*
06:00			2	16	1	11	3	27		*	*	*	*	*	*
06:15			2	14	1	8	3	22		*	*	*	*	*	*
06:30			2	11	3	7	5	18		*	*	*	*	*	*
06:45			7	8	1	6	8	14		*	*	*	*	*	*
07:00			6	7	3	3	9	10		*	*	*	*	*	*
07:15			3	9	10	9	13	18		*	*	*	*	*	*
07:30			8	6	10	5	18	11		*	*	*	*	*	*
07:45			21	2	9	0	30	2		*	*	*	*	*	*
08:00			12	3	8	2	20	5		*	*	*	*	*	*
08:15			24	7	7	2	31	9		*	*	*	*	*	*
08:30			19	5	12	2	31	7		*	*	*	*	*	*
08:45			10	3	4	2	14	5		*	*	*	*	*	*
09:00			11	1	4	0	15	1		*	*	*	*	*	*
09:15			5	2	5	0	10	2		*	*	*	*	*	*
09:30			4	3	2	1	6	4		*	*	*	*	*	*
09:45			2	0	2	2	4	2		*	*	*	*	*	*
10:00			3	0	3	1	6	1		*	*	*	*	*	*
10:15			7	1	3	1	10	2		*	*	*	*	*	*
10:30			9	1	1	0	10	1		*	*	*	*	*	*
10:45			7	1	5	1	12	2		*	*	*	*	*	*
11:00			5	1	4	0	9	1		*	*	*	*	*	*
11:15			12	0	5	1	17	1		*	*	*	*	*	*
11:30			13	0	12	0	25	0		*	*	*	*	*	*
11:45			12	0	11	0	23	0		*	*	*	*	*	*
<b>Total</b>			216	415	138	278	354	693		0	0	0	0	0	0
<b>Day Total</b>			631		416		1047			0		0		0	
<b>% Total</b>			20.6%	39.6%	13.2%	26.6%				0.0%	0.0%	0.0%	0.0%		
<b>Peak</b>	-	07:45	00:15	07:15	04:45	07:45	05:00		-	-	-	-	-	-	-
<b>Vol.</b>	-	76	80	37	54	112	115		-	-	-	-	-	-	-
<b>P.H.F.</b>		0.792	0.800	0.925	0.900	0.903	0.846								
<b>ADT</b>		ADT 1,067		AADT 1,067											

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

SB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/21/21	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:00	0	0	0	1	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	0
05:00	1	0	0	1	2	0	0	0	0	0	0	0	0	0	4
06:00	1	0	2	5	3	1	0	0	0	0	0	0	0	0	12
07:00	0	0	5	17	12	1	2	0	0	0	0	0	0	0	37
08:00	12	8	14	16	19	1	0	0	0	0	0	0	0	0	70
09:00	1	2	4	12	6	0	0	0	0	0	0	0	0	0	25
10:00	2	3	4	11	3	4	0	0	0	0	0	0	0	0	27
11:00	0	0	11	10	7	3	0	0	0	0	0	0	0	0	31
12 PM	1	7	8	17	7	3	0	0	0	0	0	0	0	0	43
13:00	4	1	9	11	4	1	0	0	0	0	0	0	0	0	30
14:00	0	3	6	18	11	5	0	0	0	0	0	0	0	0	43
15:00	2	4	10	23	20	3	1	1	0	0	0	0	0	0	64
16:00	6	5	11	28	9	2	0	0	0	0	0	0	0	0	61
17:00	3	2	15	23	11	1	0	0	0	0	0	0	0	0	55
18:00	3	4	11	26	3	0	0	0	0	0	0	0	0	0	47
19:00	3	2	11	11	7	0	1	0	0	0	0	0	0	0	35
20:00	4	1	7	9	5	0	0	0	0	0	0	0	0	0	26
21:00	2	2	1	5	2	1	0	0	0	0	0	0	0	0	13
22:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
23:00	0	1	3	3	1	0	0	0	0	0	0	0	0	0	8
Total	45	45	134	250	132	26	5	1	0	0	0	0	0	0	638

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

SB

Start Time	1 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 9999	Total
09/22/21	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	0	0	0	0	0	0	0	0
03:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
06:00	1	0	1	4	3	1	0	0	0	0	0	0	0	0	10
07:00	0	6	11	19	9	0	0	0	0	0	0	0	0	0	45
08:00	8	13	20	23	8	1	0	0	0	0	0	0	0	0	73
09:00	2	3	5	9	5	2	0	0	0	0	0	0	0	0	26
10:00	5	3	4	16	3	1	0	0	0	0	0	0	0	0	32
11:00	3	1	8	10	1	0	0	0	0	0	0	0	0	0	23
12 PM	10	4	11	11	2	0	0	0	0	0	0	0	0	0	38
13:00	2	4	5	15	1	0	0	0	0	0	0	0	0	0	27
14:00	3	1	15	14	6	1	2	0	0	0	0	0	0	0	42
15:00	11	10	22	11	5	0	0	0	0	0	0	0	0	0	59
16:00	4	7	15	24	2	1	0	0	0	0	0	0	0	0	53
17:00	7	7	26	31	10	1	0	0	0	0	0	0	0	0	82
18:00	4	8	21	12	5	0	0	0	0	0	0	0	0	0	50
19:00	3	9	8	14	1	0	0	0	0	0	0	0	0	0	35
20:00	1	1	3	10	7	0	0	0	0	0	0	0	0	0	22
21:00	0	2	5	5	2	0	0	0	0	0	0	0	0	0	14
22:00	0	0	3	1	1	0	0	0	0	0	0	0	0	0	5
23:00	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3
Total	65	80	187	229	73	8	2	0	0	0	0	0	0	0	644

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

SB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	1	0	1	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	0
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
04:00	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2
05:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3
06:00	1	1	2	7	2	0	0	0	0	0	0	0	0	0	13
07:00	6	7	6	12	4	3	0	0	0	0	0	0	0	0	38
08:00	10	9	17	21	8	0	0	0	0	0	0	0	0	0	65
09:00	0	4	6	10	2	0	0	0	0	0	0	0	0	0	22
10:00	2	4	6	9	5	0	0	0	0	0	0	0	0	0	26
11:00	2	8	12	15	4	1	0	0	0	0	0	0	0	0	42
12 PM	16	13	22	15	2	1	0	0	0	0	0	0	0	0	69
13:00	1	4	21	11	3	0	1	0	0	0	0	0	0	0	41
14:00	1	4	5	9	6	1	0	0	0	0	0	0	0	0	26
15:00	6	7	19	20	9	0	0	0	0	0	0	0	0	0	61
16:00	1	5	16	22	9	2	0	0	0	0	0	0	0	0	55
17:00	4	5	17	24	11	1	0	0	0	0	0	0	0	0	62
18:00	3	3	8	19	10	5	1	0	0	0	0	0	0	0	49
19:00	2	0	2	12	6	2	0	0	0	0	0	0	0	0	24
20:00	0	0	5	7	5	0	0	1	0	0	0	0	0	0	18
21:00	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
22:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
23:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	57	74	167	224	89	17	2	1	0	0	0	0	0	0	631
Grand Total	167	199	488	703	294	51	9	2	0	0	0	0	0	0	1913

15th Percentile : 13 MPH  
 50th Percentile : 20 MPH  
 85th Percentile : 26 MPH  
 95th Percentile : 29 MPH

Stats  
 Mean Speed(Average) : 20 MPH  
 10 MPH Pace Speed : 16-25 MPH  
 Number in Pace : 1191  
 Percent in Pace : 62.3%  
 Number of Vehicles > 20 MPH : 1059  
 Percent of Vehicles > 20 MPH : 55.4%



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

NB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/21/21	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
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	1	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
06:00	1	0	5	4	0	0	0	0	0	0	0	0	0	0	10
07:00	1	6	17	4	2	0	0	0	0	0	0	0	0	0	30
08:00	3	8	30	8	0	0	0	0	0	0	0	0	0	0	49
09:00	1	5	16	5	0	0	0	0	0	0	0	0	0	0	27
10:00	4	4	7	5	1	0	0	0	0	0	0	0	0	0	21
11:00	2	2	13	6	0	0	0	0	0	0	0	0	0	0	23
12 PM	1	6	12	4	0	0	0	0	0	0	0	0	0	0	23
13:00	1	3	7	2	0	0	0	0	0	0	0	0	0	0	13
14:00	0	3	17	5	2	0	0	0	0	0	0	0	0	0	27
15:00	0	7	16	10	1	0	0	0	0	0	0	0	0	0	34
16:00	0	3	9	21	6	0	0	0	0	0	0	0	0	0	39
17:00	2	2	17	30	7	0	0	0	0	0	0	0	0	0	58
18:00	2	3	10	13	5	1	0	0	0	0	0	0	0	0	34
19:00	0	0	8	7	2	0	0	0	0	0	0	0	0	0	17
20:00	0	0	3	6	1	0	0	0	0	0	0	0	0	0	10
21:00	0	1	2	1	0	0	0	0	0	0	0	0	0	0	4
22:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
23:00	0	1	2	0	1	0	0	0	0	0	0	0	0	0	4
Total	18	54	194	136	29	1	0	0	0	0	0	0	0	0	432

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

NB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/22/21	0	0	0	1	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	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
05:00	1	1	1	3	1	0	0	0	0	0	0	0	0	0	7
06:00	0	1	0	7	1	0	0	0	0	0	0	0	0	0	9
07:00	3	3	11	11	1	0	0	0	0	0	0	0	0	0	29
08:00	5	3	23	22	1	1	0	0	0	0	0	0	0	0	55
09:00	1	1	5	5	2	0	0	0	0	0	0	0	0	0	14
10:00	3	3	6	5	2	0	0	0	0	0	0	0	0	0	19
11:00	2	1	6	6	3	0	0	0	0	0	0	0	0	0	18
12 PM	7	1	5	9	3	1	0	0	0	0	0	0	0	0	26
13:00	1	1	4	6	5	0	0	0	0	0	0	0	0	0	17
14:00	4	5	7	6	5	0	0	0	0	0	0	0	0	0	27
15:00	5	7	9	5	3	0	0	0	0	0	0	0	0	0	29
16:00	3	4	20	21	2	0	0	0	0	0	0	0	0	0	50
17:00	3	7	14	21	3	0	0	0	0	0	0	0	0	0	48
18:00	0	2	12	13	3	0	0	0	0	0	0	0	0	0	30
19:00	1	5	11	9	1	0	0	0	0	0	0	0	0	0	27
20:00	0	0	6	7	3	0	0	0	0	0	0	0	0	0	16
21:00	0	0	2	3	3	0	0	0	0	0	0	0	0	0	8
22:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4
Total	39	46	143	166	44	2	0	0	0	0	0	0	0	0	440

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

NB																
Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total	
09/23/21	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
05:00	0	0	1	3	1	0	0	0	0	0	0	0	0	0	5	
06:00	0	0	1	5	0	0	0	0	0	0	0	0	0	0	6	
07:00	2	3	7	16	4	0	0	0	0	0	0	0	0	0	32	
08:00	2	3	11	14	1	0	0	0	0	0	0	0	0	0	31	
09:00	0	2	5	4	2	0	0	0	0	0	0	0	0	0	13	
10:00	1	1	5	4	1	0	0	0	0	0	0	0	0	0	12	
11:00	4	10	7	10	1	0	0	0	0	0	0	0	0	0	32	
12 PM	6	5	9	9	0	1	0	0	0	0	0	0	0	0	30	
13:00	2	1	14	8	2	0	0	0	0	0	0	0	0	0	27	
14:00	3	2	6	8	4	0	0	0	0	0	0	0	0	0	23	
15:00	3	1	15	13	4	0	0	0	0	0	0	0	0	0	36	
16:00	1	7	14	19	4	0	0	0	0	0	0	0	0	0	45	
17:00	2	6	16	24	5	0	0	0	0	0	0	0	0	0	53	
18:00	1	3	11	13	4	0	0	0	0	0	0	0	0	0	32	
19:00	2	4	7	4	0	0	0	0	0	0	0	0	0	0	17	
20:00	0	1	5	2	0	0	0	0	0	0	0	0	0	0	8	
21:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	
22:00	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	
23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	30	49	139	163	34	1	0	0	0	0	0	0	0	0	416	
Grand Total	87	149	476	465	107	4	0	0	0	0	0	0	0	0	1288	

15th Percentile : 13 MPH  
 50th Percentile : 19 MPH  
 85th Percentile : 24 MPH  
 95th Percentile : 27 MPH

Stats  
 Mean Speed(Average) : 19 MPH  
 10 MPH Pace Speed : 16-25 MPH  
 Number in Pace : 941  
 Percent in Pace : 73.1%  
 Number of Vehicles > 20 MPH : 576  
 Percent of Vehicles > 20 MPH : 44.7%

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

SB, NB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/21/21	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	1	0	0	3	3	0	0	0	0	0	0	0	0	0	7
06:00	2	0	7	9	3	1	0	0	0	0	0	0	0	0	22
07:00	1	6	22	21	14	1	2	0	0	0	0	0	0	0	67
08:00	15	16	44	24	19	1	0	0	0	0	0	0	0	0	119
09:00	2	7	20	17	6	0	0	0	0	0	0	0	0	0	52
10:00	6	7	11	16	4	4	0	0	0	0	0	0	0	0	48
11:00	2	2	24	16	7	3	0	0	0	0	0	0	0	0	54
12 PM	2	13	20	21	7	3	0	0	0	0	0	0	0	0	66
13:00	5	4	16	13	4	1	0	0	0	0	0	0	0	0	43
14:00	0	6	23	23	13	5	0	0	0	0	0	0	0	0	70
15:00	2	11	26	33	21	3	1	1	0	0	0	0	0	0	98
16:00	6	8	20	49	15	2	0	0	0	0	0	0	0	0	100
17:00	5	4	32	53	18	1	0	0	0	0	0	0	0	0	113
18:00	5	7	21	39	8	1	0	0	0	0	0	0	0	0	81
19:00	3	2	19	18	9	0	1	0	0	0	0	0	0	0	52
20:00	4	1	10	15	6	0	0	0	0	0	0	0	0	0	36
21:00	2	3	3	6	2	1	0	0	0	0	0	0	0	0	17
22:00	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5
23:00	0	2	5	3	2	0	0	0	0	0	0	0	0	0	12
Total	63	99	328	386	161	27	5	1	0	0	0	0	0	0	1070

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

SB, NB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/22/21	0	0	0	1	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	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
05:00	1	2	2	3	1	0	0	0	0	0	0	0	0	0	9
06:00	1	1	1	11	4	1	0	0	0	0	0	0	0	0	19
07:00	3	9	22	30	10	0	0	0	0	0	0	0	0	0	74
08:00	13	16	43	45	9	2	0	0	0	0	0	0	0	0	128
09:00	3	4	10	14	7	2	0	0	0	0	0	0	0	0	40
10:00	8	6	10	21	5	1	0	0	0	0	0	0	0	0	51
11:00	5	2	14	16	4	0	0	0	0	0	0	0	0	0	41
12 PM	17	5	16	20	5	1	0	0	0	0	0	0	0	0	64
13:00	3	5	9	21	6	0	0	0	0	0	0	0	0	0	44
14:00	7	6	22	20	11	1	2	0	0	0	0	0	0	0	69
15:00	16	17	31	16	8	0	0	0	0	0	0	0	0	0	88
16:00	7	11	35	45	4	1	0	0	0	0	0	0	0	0	103
17:00	10	14	40	52	13	1	0	0	0	0	0	0	0	0	130
18:00	4	10	33	25	8	0	0	0	0	0	0	0	0	0	80
19:00	4	14	19	23	2	0	0	0	0	0	0	0	0	0	62
20:00	1	1	9	17	10	0	0	0	0	0	0	0	0	0	38
21:00	0	2	7	8	5	0	0	0	0	0	0	0	0	0	22
22:00	0	1	3	2	1	0	0	0	0	0	0	0	0	0	7
23:00	1	0	0	2	4	0	0	0	0	0	0	0	0	0	7
Total	104	126	330	395	117	10	2	0	0	0	0	0	0	0	1084

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 6700 BLOCK OF 4TH STREET, NW - SPEED

SB, NB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	1	0	1	2	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4
04:00	1	0	0	1	0	1	0	0	0	0	0	0	0	0	3
05:00	0	0	2	4	2	0	0	0	0	0	0	0	0	0	8
06:00	1	1	3	12	2	0	0	0	0	0	0	0	0	0	19
07:00	8	10	13	28	8	3	0	0	0	0	0	0	0	0	70
08:00	12	12	28	35	9	0	0	0	0	0	0	0	0	0	96
09:00	0	6	11	14	4	0	0	0	0	0	0	0	0	0	35
10:00	3	5	11	13	6	0	0	0	0	0	0	0	0	0	38
11:00	6	18	19	25	5	1	0	0	0	0	0	0	0	0	74
12 PM	22	18	31	24	2	2	0	0	0	0	0	0	0	0	99
13:00	3	5	35	19	5	0	1	0	0	0	0	0	0	0	68
14:00	4	6	11	17	10	1	0	0	0	0	0	0	0	0	49
15:00	9	8	34	33	13	0	0	0	0	0	0	0	0	0	97
16:00	2	12	30	41	13	2	0	0	0	0	0	0	0	0	100
17:00	6	11	33	48	16	1	0	0	0	0	0	0	0	0	115
18:00	4	6	19	32	14	5	1	0	0	0	0	0	0	0	81
19:00	4	4	9	16	6	2	0	0	0	0	0	0	0	0	41
20:00	0	1	10	9	5	0	0	1	0	0	0	0	0	0	26
21:00	0	0	1	7	1	0	0	0	0	0	0	0	0	0	9
22:00	0	0	4	2	0	0	0	0	0	0	0	0	0	0	6
23:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Total	87	123	306	387	123	18	2	1	0	0	0	0	0	0	1047
Grand Total	254	348	964	1168	401	55	9	2	0	0	0	0	0	0	3201

15th Percentile : 13 MPH  
 50th Percentile : 20 MPH  
 85th Percentile : 24 MPH  
 95th Percentile : 28 MPH

Stats  
 Mean Speed(Average) : 20 MPH  
 10 MPH Pace Speed : 16-25 MPH  
 Number in Pace : 2132  
 Percent in Pace : 66.6%  
 Number of Vehicles > 20 MPH : 1635  
 Percent of Vehicles > 20 MPH : 51.1%

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF Whittier Street, NW - VOLUME

Start Time	21-Sep-21 Tue		WB		EB		Combined		22-Sep Wed	WB		EB		Combined	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	3	15	1	8	4	23	6	19	1	4	7	23			
12:15	3	14	1	8	4	22	1	13	4	8	5	21			
12:30	2	18	0	21	2	39	2	15	1	8	3	23			
12:45	1	17	1	14	2	31	1	17	1	13	2	30			
01:00	1	14	1	13	2	27	1	21	2	12	3	33			
01:15	1	15	0	8	1	23	2	13	1	8	3	21			
01:30	2	18	0	6	2	24	2	20	1	5	3	25			
01:45	3	21	0	10	3	31	1	28	0	7	1	35			
02:00	2	12	1	13	3	25	1	14	0	8	1	22			
02:15	0	15	0	7	0	22	1	14	0	9	1	23			
02:30	0	19	0	13	0	32	2	20	0	9	2	29			
02:45	1	17	0	11	1	28	0	23	0	10	0	33			
03:00	0	27	0	11	0	38	0	26	1	12	1	38			
03:15	0	42	1	10	1	52	0	34	0	16	0	50			
03:30	0	48	1	34	1	82	0	27	0	39	0	66			
03:45	0	30	0	33	0	63	0	30	2	36	2	66			
04:00	0	32	1	12	1	44	0	27	1	19	1	46			
04:15	0	35	3	12	3	47	0	23	2	23	2	46			
04:30	1	44	1	17	2	61	0	40	0	9	0	49			
04:45	0	46	0	21	0	67	1	51	0	22	1	73			
05:00	2	38	0	26	2	64	1	38	1	27	2	65			
05:15	2	31	0	24	2	55	5	44	2	27	7	71			
05:30	3	42	5	23	8	65	3	35	4	20	7	55			
05:45	7	43	1	20	8	63	7	41	0	13	7	54			
06:00	1	34	3	16	4	50	5	18	4	19	9	37			
06:15	3	25	2	11	5	36	3	36	1	14	4	50			
06:30	15	19	3	13	18	32	13	22	5	8	18	30			
06:45	17	23	4	9	21	32	14	6	2	7	16	13			
07:00	15	26	9	15	24	41	14	23	5	9	19	32			
07:15	28	18	8	8	36	26	32	10	8	7	40	17			
07:30	38	12	12	8	50	20	39	10	10	13	49	23			
07:45	62	19	18	10	80	29	60	8	13	11	73	19			
08:00	65	15	20	9	85	24	47	11	16	10	63	21			
08:15	55	14	27	4	82	18	61	13	31	6	92	19			
08:30	50	19	26	10	76	29	44	8	22	6	66	14			
08:45	28	10	15	5	43	15	39	4	16	3	55	7			
09:00	13	11	15	4	28	15	25	8	12	6	37	14			
09:15	25	5	15	1	40	6	17	9	7	3	24	12			
09:30	12	9	12	3	24	12	13	7	8	4	21	11			
09:45	17	7	10	2	27	9	13	8	12	3	25	11			
10:00	17	4	5	3	22	7	19	6	7	6	26	12			
10:15	19	6	7	3	26	9	18	4	4	1	22	5			
10:30	18	5	8	3	26	8	13	0	10	3	23	3			
10:45	20	2	4	2	24	4	13	4	10	0	23	4			
11:00	15	6	10	1	25	7	11	3	10	0	21	3			
11:15	21	5	5	0	26	5	15	4	16	2	31	6			
11:30	22	4	9	2	31	6	16	6	9	1	25	7			
11:45	26	3	5	2	31	5	10	3	6	0	16	3			
<b>Total</b>	636	954	270	519	906	1473	591	864	268	506	859	1370			
<b>Day Total</b>	1590		789		2379		1455		774		2229				
<b>% Total</b>	26.7%	40.1%	11.3%	21.8%			26.5%	38.8%	12.0%	22.7%					
<b>Peak</b>	-	07:45	04:15	07:45	04:45	07:45	04:45	-	07:45	04:30	08:00	03:30	07:45	04:45	
<b>Vol.</b>	-	232	163	91	94	323	251	-	212	173	85	117	294	264	
<b>P.H.F.</b>		0.892	0.886	0.843	0.712	0.950	0.937		0.869	0.848	0.685	0.750	0.799	0.904	

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF Whittier Street, NW - VOLUME

Start Time	23-Sep-21		WB		EB		Combined		24-Sep	WB		EB		Combined	
	Thu		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		Fri	A.M.	P.M.	A.M.	P.M.	A.M.
12:00			4	11	1	13	5	24	*	*	*	*	*	*	*
12:15			3	16	2	8	5	24	*	*	*	*	*	*	*
12:30			5	13	0	11	5	24	*	*	*	*	*	*	*
12:45			2	26	1	10	3	36	*	*	*	*	*	*	*
01:00			3	16	2	7	5	23	*	*	*	*	*	*	*
01:15			2	19	0	3	2	22	*	*	*	*	*	*	*
01:30			1	23	1	6	2	29	*	*	*	*	*	*	*
01:45			0	16	2	11	2	27	*	*	*	*	*	*	*
02:00			1	17	0	8	1	25	*	*	*	*	*	*	*
02:15			1	19	1	10	2	29	*	*	*	*	*	*	*
02:30			0	20	0	12	0	32	*	*	*	*	*	*	*
02:45			0	23	0	6	0	29	*	*	*	*	*	*	*
03:00			0	35	1	9	1	44	*	*	*	*	*	*	*
03:15			0	24	0	16	0	40	*	*	*	*	*	*	*
03:30			1	34	1	40	2	74	*	*	*	*	*	*	*
03:45			0	28	1	28	1	56	*	*	*	*	*	*	*
04:00			0	36	1	19	1	55	*	*	*	*	*	*	*
04:15			1	49	1	23	2	72	*	*	*	*	*	*	*
04:30			0	51	0	28	0	79	*	*	*	*	*	*	*
04:45			2	40	0	18	2	58	*	*	*	*	*	*	*
05:00			1	38	0	30	1	68	*	*	*	*	*	*	*
05:15			2	40	1	20	3	60	*	*	*	*	*	*	*
05:30			4	44	3	29	7	73	*	*	*	*	*	*	*
05:45			2	37	1	24	3	61	*	*	*	*	*	*	*
06:00			2	23	1	16	3	39	*	*	*	*	*	*	*
06:15			4	25	1	16	5	41	*	*	*	*	*	*	*
06:30			9	21	0	18	9	39	*	*	*	*	*	*	*
06:45			12	27	3	8	15	35	*	*	*	*	*	*	*
07:00			14	17	2	12	16	29	*	*	*	*	*	*	*
07:15			21	24	5	12	26	36	*	*	*	*	*	*	*
07:30			32	10	6	9	38	19	*	*	*	*	*	*	*
07:45			60	17	16	12	76	29	*	*	*	*	*	*	*
08:00			63	13	12	3	75	16	*	*	*	*	*	*	*
08:15			64	11	34	7	98	18	*	*	*	*	*	*	*
08:30			59	9	20	6	79	15	*	*	*	*	*	*	*
08:45			42	15	16	2	58	17	*	*	*	*	*	*	*
09:00			26	6	11	5	37	11	*	*	*	*	*	*	*
09:15			14	20	17	4	31	24	*	*	*	*	*	*	*
09:30			7	6	13	4	20	10	*	*	*	*	*	*	*
09:45			18	9	9	5	27	14	*	*	*	*	*	*	*
10:00			7	6	6	3	13	9	*	*	*	*	*	*	*
10:15			14	4	9	2	23	6	*	*	*	*	*	*	*
10:30			11	3	10	2	21	5	*	*	*	*	*	*	*
10:45			17	9	10	3	27	12	*	*	*	*	*	*	*
11:00			14	7	5	3	19	10	*	*	*	*	*	*	*
11:15			17	5	8	3	25	8	*	*	*	*	*	*	*
11:30			18	4	7	3	25	7	*	*	*	*	*	*	*
11:45			20	5	8	2	28	7	*	*	*	*	*	*	*
Total			600	971	249	549	849	1520		0	0	0	0	0	0
Day Total			1571		798		2369			0		0		0	
% Total			25.3%	41.0%	10.5%	23.2%				0.0%	0.0%	0.0%	0.0%		
Peak	-	07:45	04:15	07:45	03:30	07:45	04:15		-	-	-	-	-	-	-
Vol.	-	246	178	82	110	328	277		-	-	-	-	-	-	-
P.H.F.		0.961	0.873	0.603	0.688	0.837	0.877								
ADT		ADT 2,324		AADT 2,324											



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

WB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/21/21	0	0	1	3	2	3	0	0	0	0	0	0	0	0	9
01:00	0	0	1	1	3	1	1	0	0	0	0	0	0	0	7
02:00	0	0	0	1	1	0	1	0	0	0	0	0	0	0	3
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	0	0	0	0	0	0	0	0	1
05:00	0	0	2	3	5	2	2	0	0	0	0	0	0	0	14
06:00	3	2	5	14	5	7	0	0	0	0	0	0	0	0	36
07:00	1	19	32	43	39	6	2	0	1	0	0	0	0	0	143
08:00	11	28	54	69	29	7	0	0	0	0	0	0	0	0	198
09:00	4	5	23	23	10	1	1	0	0	0	0	0	0	0	67
10:00	4	6	11	35	14	2	1	1	0	0	0	0	0	0	74
11:00	4	10	23	29	14	3	0	1	0	0	0	0	0	0	84
12 PM	6	10	12	26	9	1	0	0	0	0	0	0	0	0	64
13:00	1	3	23	23	17	1	0	0	0	0	0	0	0	0	68
14:00	8	4	16	20	9	5	1	0	0	0	0	0	0	0	63
15:00	21	22	38	42	20	3	1	0	0	0	0	0	0	0	147
16:00	13	20	50	47	23	4	0	0	0	0	0	0	0	0	157
17:00	11	27	56	38	19	2	1	0	0	0	0	0	0	0	154
18:00	5	15	27	35	18	1	0	0	0	0	0	0	0	0	101
19:00	4	6	19	36	7	3	0	0	0	0	0	0	0	0	75
20:00	2	8	16	21	8	3	0	0	0	0	0	0	0	0	58
21:00	0	4	1	17	6	4	0	0	0	0	0	0	0	0	32
22:00	0	1	5	6	2	1	0	1	0	1	0	0	0	0	17
23:00	0	2	2	6	5	3	0	0	0	0	0	0	0	0	18
Total	98	192	417	538	265	64	11	3	1	1	0	0	0	0	1590

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

WB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/22/21	0	0	1	1	4	2	2	0	0	0	0	0	0	0	10
01:00	0	0	2	1	2	1	0	0	0	0	0	0	0	0	6
02:00	0	0	1	2	0	0	1	0	0	0	0	0	0	0	4
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	0	0	0	0	0	0	0	0	1
05:00	1	0	2	6	5	0	2	0	0	0	0	0	0	0	16
06:00	0	2	4	13	12	4	0	0	0	0	0	0	0	0	35
07:00	1	9	20	61	47	6	0	1	0	0	0	0	0	0	145
08:00	11	23	59	57	31	8	2	0	0	0	0	0	0	0	191
09:00	1	1	15	27	18	6	0	0	0	0	0	0	0	0	68
10:00	10	16	11	19	5	2	0	0	0	0	0	0	0	0	63
11:00	4	4	9	21	12	1	0	1	0	0	0	0	0	0	52
12 PM	4	4	20	18	12	5	0	1	0	0	0	0	0	0	64
13:00	4	12	19	24	16	6	1	0	0	0	0	0	0	0	82
14:00	1	9	14	31	11	4	1	0	0	0	0	0	0	0	71
15:00	6	14	31	43	21	1	0	1	0	0	0	0	0	0	117
16:00	6	18	41	49	19	8	0	0	0	0	0	0	0	0	141
17:00	8	14	47	52	28	9	0	0	0	0	0	0	0	0	158
18:00	8	2	22	31	16	3	0	0	0	0	0	0	0	0	82
19:00	5	3	17	18	6	1	1	0	0	0	0	0	0	0	51
20:00	1	4	13	11	3	3	0	0	1	0	0	0	0	0	36
21:00	1	1	3	19	7	1	0	0	0	0	0	0	0	0	32
22:00	0	1	1	7	1	3	1	0	0	0	0	0	0	0	14
23:00	0	2	0	5	6	1	2	0	0	0	0	0	0	0	16
Total	72	139	352	516	282	76	13	4	1	0	0	0	0	0	1455

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

WB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	1	1	2	2	5	3	0	0	0	0	0	0	0	0	14
01:00	0	1	0	3	0	1	0	1	0	0	0	0	0	0	6
02:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3
05:00	0	0	2	3	1	2	1	0	0	0	0	0	0	0	9
06:00	1	0	11	8	7	0	0	0	0	0	0	0	0	0	27
07:00	20	14	33	35	21	4	0	0	0	0	0	0	0	0	127
08:00	40	20	83	50	31	4	0	0	0	0	0	0	0	0	228
09:00	8	1	17	21	14	3	1	0	0	0	0	0	0	0	65
10:00	5	4	16	13	8	2	1	0	0	0	0	0	0	0	49
11:00	6	8	19	25	8	3	0	0	0	0	0	0	0	0	69
12 PM	5	4	15	19	17	4	2	0	0	0	0	0	0	0	66
13:00	4	5	33	16	12	3	1	0	0	0	0	0	0	0	74
14:00	8	9	42	11	8	1	0	0	0	0	0	0	0	0	79
15:00	11	24	54	18	12	2	0	0	0	0	0	0	0	0	121
16:00	32	28	69	24	20	3	0	0	0	0	0	0	0	0	176
17:00	25	21	66	23	17	7	0	0	0	0	0	0	0	0	159
18:00	5	14	58	9	9	1	0	0	0	0	0	0	0	0	96
19:00	2	7	28	11	16	4	0	0	0	0	0	0	0	0	68
20:00	2	4	26	6	7	3	0	0	0	0	0	0	0	0	48
21:00	2	4	21	4	7	3	0	0	0	0	0	0	0	0	41
22:00	1	2	11	0	5	3	0	0	0	0	0	0	0	0	22
23:00	2	0	6	5	3	1	3	1	0	0	0	0	0	0	21
Total	180	172	612	307	231	58	9	2	0	0	0	0	0	0	1571
Grand Total	350	503	1381	1361	778	198	33	9	2	1	0	0	0	0	4616

15th Percentile : 13 MPH  
 50th Percentile : 20 MPH  
 85th Percentile : 27 MPH  
 95th Percentile : 30 MPH

Stats  
 Mean Speed(Average) : 21 MPH  
 10 MPH Pace Speed : 16-25 MPH  
 Number in Pace : 2742  
 Percent in Pace : 59.4%  
 Number of Vehicles > 20 MPH : 2382  
 Percent of Vehicles > 20 MPH : 51.6%

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

EB

Start Time	1 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 9999	Total
09/21/21	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	2	2	1	0	0	0	0	0	0	0	0	0	5
05:00	0	0	0	5	0	1	0	0	0	0	0	0	0	0	6
06:00	0	2	2	3	5	0	0	0	0	0	0	0	0	0	12
07:00	5	8	20	10	4	0	0	0	0	0	0	0	0	0	47
08:00	6	29	37	16	0	0	0	0	0	0	0	0	0	0	88
09:00	1	6	28	13	4	0	0	0	0	0	0	0	0	0	52
10:00	3	2	8	9	2	0	0	0	0	0	0	0	0	0	24
11:00	6	4	12	6	1	0	0	0	0	0	0	0	0	0	29
12 PM	2	9	25	14	1	0	0	0	0	0	0	0	0	0	51
13:00	5	3	15	11	3	0	0	0	0	0	0	0	0	0	37
14:00	5	7	16	12	3	0	0	0	0	0	0	0	0	1	44
15:00	6	23	35	21	3	0	0	0	0	0	0	0	0	0	88
16:00	4	21	21	14	2	0	0	0	0	0	0	0	0	0	62
17:00	7	24	47	13	2	0	0	0	0	0	0	0	0	0	93
18:00	3	7	28	10	1	0	0	0	0	0	0	0	0	0	49
19:00	6	3	12	13	7	0	0	0	0	0	0	0	0	0	41
20:00	0	0	9	16	3	0	0	0	0	0	0	0	0	0	28
21:00	0	0	5	2	2	1	0	0	0	0	0	0	0	0	10
22:00	0	1	3	7	0	0	0	0	0	0	0	0	0	0	11
23:00	0	0	2	2	1	0	0	0	0	0	0	0	0	0	5
Total	59	150	328	203	46	2	0	0	0	0	0	0	0	1	789

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

EB

Start Time	1 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 9999	Total
09/22/21	0	0	1	5	1	0	0	0	0	0	0	0	0	0	7
01:00	0	1	0	2	1	0	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3
04:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
05:00	0	0	1	5	0	0	1	0	0	0	0	0	0	0	7
06:00	0	1	1	4	4	2	0	0	0	0	0	0	0	0	12
07:00	4	3	16	13	0	0	0	0	0	0	0	0	0	0	36
08:00	14	12	37	19	3	0	0	0	0	0	0	0	0	0	85
09:00	2	0	15	19	2	1	0	0	0	0	0	0	0	0	39
10:00	3	9	7	11	1	0	0	0	0	0	0	0	0	0	31
11:00	4	2	21	13	1	0	0	0	0	0	0	0	0	0	41
12 PM	3	6	14	7	3	0	0	0	0	0	0	0	0	0	33
13:00	2	6	14	7	3	0	0	0	0	0	0	0	0	0	32
14:00	2	3	13	17	1	0	0	0	0	0	0	0	0	0	36
15:00	3	20	40	34	4	2	0	0	0	0	0	0	0	0	103
16:00	1	17	33	18	3	1	0	0	0	0	0	0	0	0	73
17:00	6	16	35	28	2	0	0	0	0	0	0	0	0	0	87
18:00	4	14	12	18	0	0	0	0	0	0	0	0	0	0	48
19:00	4	2	12	20	1	1	0	0	0	0	0	0	0	0	40
20:00	2	4	6	12	1	0	0	0	0	0	0	0	0	0	25
21:00	1	0	8	4	3	0	0	0	0	0	0	0	0	0	16
22:00	0	1	5	4	0	0	0	0	0	0	0	0	0	0	10
23:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
Total	55	118	293	263	37	7	1	0	0	0	0	0	0	0	774

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4
01:00	1	0	4	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
05:00	0	1	1	1	1	0	1	0	0	0	0	0	0	0	5
06:00	0	0	1	1	1	1	0	0	0	0	1	0	0	0	5
07:00	9	3	9	5	1	1	0	0	1	0	0	0	0	0	29
08:00	14	14	25	8	13	6	1	1	0	0	0	0	0	0	82
09:00	1	3	21	4	7	10	2	0	1	1	0	0	0	0	50
10:00	3	2	11	4	6	8	1	0	0	0	0	0	0	0	35
11:00	4	3	9	7	3	0	1	1	0	0	0	0	0	0	28
12 PM	2	10	18	6	5	0	0	0	1	0	0	0	0	0	42
13:00	2	4	7	7	2	2	2	0	0	0	0	0	0	1	27
14:00	5	0	9	5	7	4	5	0	0	0	0	1	0	0	36
15:00	15	9	27	12	14	4	6	2	3	0	1	0	0	0	93
16:00	14	12	20	18	12	5	1	1	0	3	1	1	0	0	88
17:00	24	11	20	19	15	11	1	1	0	0	0	1	0	0	103
18:00	7	8	15	7	8	5	6	2	0	0	0	0	0	0	58
19:00	6	1	11	8	6	5	3	2	1	1	0	0	0	1	45
20:00	0	1	2	2	7	0	1	2	0	3	0	0	0	0	18
21:00	2	2	4	1	3	3	3	0	0	0	0	0	0	0	18
22:00	0	1	0	4	3	1	1	0	0	0	0	0	0	0	10
23:00	1	0	3	4	2	1	0	0	0	0	0	0	0	0	11
Total	110	86	221	128	116	67	35	12	7	8	3	3	0	2	798
Grand Total	224	354	842	594	199	76	36	12	7	8	3	3	0	3	2361

15th Percentile : 11 MPH  
 50th Percentile : 18 MPH  
 85th Percentile : 24 MPH  
 95th Percentile : 31 MPH

Stats  
 Mean Speed(Average) : 19 MPH  
 10 MPH Pace Speed : 16-25 MPH  
 Number in Pace : 1436  
 Percent in Pace : 60.8%  
 Number of Vehicles > 20 MPH : 941  
 Percent of Vehicles > 20 MPH : 39.9%

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

WB, EB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/21/21	0	1	1	5	2	3	0	0	0	0	0	0	0	0	12
01:00	0	0	1	1	4	1	1	0	0	0	0	0	0	0	8
02:00	0	0	0	2	1	0	1	0	0	0	0	0	0	0	4
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	2	2	1	1	0	0	0	0	0	0	0	0	6
05:00	0	0	2	8	5	3	2	0	0	0	0	0	0	0	20
06:00	3	4	7	17	10	7	0	0	0	0	0	0	0	0	48
07:00	6	27	52	53	43	6	2	0	1	0	0	0	0	0	190
08:00	17	57	91	85	29	7	0	0	0	0	0	0	0	0	286
09:00	5	11	51	36	14	1	1	0	0	0	0	0	0	0	119
10:00	7	8	19	44	16	2	1	1	0	0	0	0	0	0	98
11:00	10	14	35	35	15	3	0	1	0	0	0	0	0	0	113
12 PM	8	19	37	40	10	1	0	0	0	0	0	0	0	0	115
13:00	6	6	38	34	20	1	0	0	0	0	0	0	0	0	105
14:00	13	11	32	32	12	5	1	0	0	0	0	0	0	1	107
15:00	27	45	73	63	23	3	1	0	0	0	0	0	0	0	235
16:00	17	41	71	61	25	4	0	0	0	0	0	0	0	0	219
17:00	18	51	103	51	21	2	1	0	0	0	0	0	0	0	247
18:00	8	22	55	45	19	1	0	0	0	0	0	0	0	0	150
19:00	10	9	31	49	14	3	0	0	0	0	0	0	0	0	116
20:00	2	8	25	37	11	3	0	0	0	0	0	0	0	0	86
21:00	0	4	6	19	8	5	0	0	0	0	0	0	0	0	42
22:00	0	2	8	13	2	1	0	1	0	1	0	0	0	0	28
23:00	0	2	4	8	6	3	0	0	0	0	0	0	0	0	23
Total	157	342	745	741	311	66	11	3	1	1	0	0	0	1	2379

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

WB, EB

Start Time	1 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 9999	Total
09/22/21	0	0	2	6	5	2	2	0	0	0	0	0	0	0	17
01:00	0	1	2	3	3	1	0	0	0	0	0	0	0	0	10
02:00	0	0	1	2	0	0	1	0	0	0	0	0	0	0	4
03:00	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3
04:00	0	0	2	1	0	1	0	0	0	0	0	0	0	0	4
05:00	1	0	3	11	5	0	3	0	0	0	0	0	0	0	23
06:00	0	3	5	17	16	6	0	0	0	0	0	0	0	0	47
07:00	5	12	36	74	47	6	0	1	0	0	0	0	0	0	181
08:00	25	35	96	76	34	8	2	0	0	0	0	0	0	0	276
09:00	3	1	30	46	20	7	0	0	0	0	0	0	0	0	107
10:00	13	25	18	30	6	2	0	0	0	0	0	0	0	0	94
11:00	8	6	30	34	13	1	0	1	0	0	0	0	0	0	93
12 PM	7	10	34	25	15	5	0	1	0	0	0	0	0	0	97
13:00	6	18	33	31	19	6	1	0	0	0	0	0	0	0	114
14:00	3	12	27	48	12	4	1	0	0	0	0	0	0	0	107
15:00	9	34	71	77	25	3	0	1	0	0	0	0	0	0	220
16:00	7	35	74	67	22	9	0	0	0	0	0	0	0	0	214
17:00	14	30	82	80	30	9	0	0	0	0	0	0	0	0	245
18:00	12	16	34	49	16	3	0	0	0	0	0	0	0	0	130
19:00	9	5	29	38	7	2	1	0	0	0	0	0	0	0	91
20:00	3	8	19	23	4	3	0	0	1	0	0	0	0	0	61
21:00	2	1	11	23	10	1	0	0	0	0	0	0	0	0	48
22:00	0	2	6	11	1	3	1	0	0	0	0	0	0	0	24
23:00	0	2	0	7	7	1	2	0	0	0	0	0	0	0	19
Total	127	257	645	779	319	83	14	4	1	0	0	0	0	0	2229



# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF WHITTIER STREET, NW - SPEED

WB, EB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	1	1	4	4	5	3	0	0	0	0	0	0	0	0	18
01:00	1	1	4	3	0	1	0	1	0	0	0	0	0	0	11
02:00	0	0	1	0	1	1	0	0	0	0	0	0	0	0	3
03:00	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4
04:00	0	1	0	2	2	0	0	0	0	0	0	0	0	0	5
05:00	0	1	3	4	2	2	2	0	0	0	0	0	0	0	14
06:00	1	0	12	9	8	1	0	0	0	0	1	0	0	0	32
07:00	29	17	42	40	22	5	0	0	1	0	0	0	0	0	156
08:00	54	34	108	58	44	10	1	1	0	0	0	0	0	0	310
09:00	9	4	38	25	21	13	3	0	1	1	0	0	0	0	115
10:00	8	6	27	17	14	10	2	0	0	0	0	0	0	0	84
11:00	10	11	28	32	11	3	1	1	0	0	0	0	0	0	97
12 PM	7	14	33	25	22	4	2	0	1	0	0	0	0	0	108
13:00	6	9	40	23	14	5	3	0	0	0	0	0	0	1	101
14:00	13	9	51	16	15	5	5	0	0	0	0	1	0	0	115
15:00	26	33	81	30	26	6	6	2	3	0	1	0	0	0	214
16:00	46	40	89	42	32	8	1	1	0	3	1	1	0	0	264
17:00	49	32	86	42	32	18	1	1	0	0	0	1	0	0	262
18:00	12	22	73	16	17	6	6	2	0	0	0	0	0	0	154
19:00	8	8	39	19	22	9	3	2	1	1	0	0	0	1	113
20:00	2	5	28	8	14	3	1	2	0	3	0	0	0	0	66
21:00	4	6	25	5	10	6	3	0	0	0	0	0	0	0	59
22:00	1	3	11	4	8	4	1	0	0	0	0	0	0	0	32
23:00	3	0	9	9	5	2	3	1	0	0	0	0	0	0	32
Total	290	258	833	435	347	125	44	14	7	8	3	3	0	2	2369
Grand Total	574	857	2223	1955	977	274	69	21	9	9	3	3	0	3	6977

15th Percentile : 12 MPH  
 50th Percentile : 19 MPH  
 85th Percentile : 26 MPH  
 95th Percentile : 30 MPH

Stats  
 Mean Speed(Average) : 20 MPH  
 10 MPH Pace Speed : 16-25 MPH  
 Number in Pace : 4178  
 Percent in Pace : 59.9%  
 Number of Vehicles > 20 MPH : 3323  
 Percent of Vehicles > 20 MPH : 47.6%

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF VAN BUREN STREET, NW - VOLUME

Start Time	Tue 21-Sep-2		Wed 22-Sep-2		Thu 23-Sep-2		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	1	8	2	5	0	5	1	6
12:15	0	7	0	3	0	5	0	5
12:30	0	5	0	6	0	5	0	5
12:45	1	10	0	5	0	6	0	7
01:00	0	8	0	9	0	7	0	8
01:15	0	5	0	8	0	7	0	7
01:30	0	6	0	3	0	3	0	4
01:45	0	3	1	4	1	8	1	5
02:00	0	9	0	3	0	7	0	6
02:15	0	6	0	8	0	7	0	7
02:30	0	6	0	7	0	7	0	7
02:45	0	2	0	4	0	5	0	4
03:00	0	6	0	6	0	7	0	6
03:15	0	12	0	7	0	5	0	8
03:30	0	14	0	12	1	16	0	14
03:45	0	18	0	13	0	13	0	15
04:00	0	6	1	10	1	9	1	8
04:15	0	10	0	5	0	9	0	8
04:30	0	5	0	6	0	9	0	7
04:45	0	10	0	13	0	11	0	11
05:00	0	12	0	6	0	14	0	11
05:15	0	8	1	13	0	14	0	12
05:30	0	10	1	24	0	15	0	16
05:45	0	10	0	11	2	7	1	9
06:00	0	12	0	17	0	18	0	16
06:15	2	7	0	6	3	11	2	8
06:30	1	12	2	14	0	4	1	10
06:45	4	7	1	16	3	12	3	12
07:00	4	17	3	10	3	13	3	13
07:15	3	7	6	7	2	7	4	7
07:30	6	12	2	16	2	8	3	12
07:45	13	4	8	10	14	1	12	5
08:00	9	5	19	5	11	3	13	4
08:15	11	7	14	9	11	5	12	7
08:30	9	5	11	3	14	6	11	5
08:45	6	4	5	2	8	2	6	3
09:00	8	2	9	3	7	5	8	3
09:15	7	3	2	1	8	2	6	2
09:30	6	4	1	3	1	2	3	3
09:45	4	3	6	1	3	3	4	2
10:00	6	2	6	0	4	0	5	1
10:15	7	1	8	6	5	4	7	4
10:30	6	0	9	1	7	3	7	1
10:45	1	0	6	2	5	3	4	2
11:00	3	2	10	1	6	2	6	2
11:15	9	1	3	1	8	0	7	1
11:30	7	0	7	0	7	1	7	0
11:45	4	2	4	0	1	2	3	1
<b>Total</b>	<b>138</b>	<b>315</b>	<b>148</b>	<b>325</b>	<b>138</b>	<b>318</b>	<b>141</b>	<b>320</b>
<b>Combined Total</b>	<b>453</b>		<b>473</b>		<b>456</b>		<b>461</b>	
Peak	07:45	03:00	-	07:45	05:15	-	07:45	05:15
Vol.	42	50	-	52	65	-	48	53
P.H.F.	0.808	0.694	-	0.684	0.677	-	0.923	0.828
ADT	ADT 461		AADT 461					

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF VAN BUREN STREET, NW - SPEED

EB

Start Time	1 10	11 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 9999	Total
09/21/21	0	1	1	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	3	4	0	0	0	0	0	0	0	0	0	0	0	0	7
07:00	9	13	4	0	0	0	0	0	0	0	0	0	0	0	26
08:00	5	21	8	1	0	0	0	0	0	0	0	0	0	0	35
09:00	13	11	1	0	0	0	0	0	0	0	0	0	0	0	25
10:00	5	13	2	0	0	0	0	0	0	0	0	0	0	0	20
11:00	8	12	3	0	0	0	0	0	0	0	0	0	0	0	23
12 PM	15	11	4	0	0	0	0	0	0	0	0	0	0	0	30
13:00	9	12	1	0	0	0	0	0	0	0	0	0	0	0	22
14:00	2	18	3	0	0	0	0	0	0	0	0	0	0	0	23
15:00	18	25	7	0	0	0	0	0	0	0	0	0	0	0	50
16:00	13	15	3	0	0	0	0	0	0	0	0	0	0	0	31
17:00	13	25	2	0	0	0	0	0	0	0	0	0	0	0	40
18:00	17	19	2	0	0	0	0	0	0	0	0	0	0	0	38
19:00	28	12	0	0	0	0	0	0	0	0	0	0	0	0	40
20:00	8	12	1	0	0	0	0	0	0	0	0	0	0	0	21
21:00	8	3	1	0	0	0	0	0	0	0	0	0	0	0	12
22:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
23:00	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	179	230	43	1	0	0	0	0	0	0	0	0	0	0	453

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammateeng.com

## 300 BLOCK OF VAN BUREN STREET, NW - SPEED

EB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/22/21	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	1	0	0	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	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
06:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
07:00	5	10	4	0	0	0	0	0	0	0	0	0	0	0	19
08:00	7	30	11	1	0	0	0	0	0	0	0	0	0	0	49
09:00	10	7	1	0	0	0	0	0	0	0	0	0	0	0	18
10:00	12	15	2	0	0	0	0	0	0	0	0	0	0	0	29
11:00	5	17	2	0	0	0	0	0	0	0	0	0	0	0	24
12 PM	4	13	2	0	0	0	0	0	0	0	0	0	0	0	19
13:00	11	12	1	0	0	0	0	0	0	0	0	0	0	0	24
14:00	8	12	2	0	0	0	0	0	0	0	0	0	0	0	22
15:00	12	20	5	0	1	0	0	0	0	0	0	0	0	0	38
16:00	13	18	3	0	0	0	0	0	0	0	0	0	0	0	34
17:00	22	29	3	0	0	0	0	0	0	0	0	0	0	0	54
18:00	27	26	0	0	0	0	0	0	0	0	0	0	0	0	53
19:00	25	17	1	0	0	0	0	0	0	0	0	0	0	0	43
20:00	7	12	0	0	0	0	0	0	0	0	0	0	0	0	19
21:00	3	5	0	0	0	0	0	0	0	0	0	0	0	0	8
22:00	2	5	2	0	0	0	0	0	0	0	0	0	0	0	9
23:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	179	251	41	1	1	0	0	0	0	0	0	0	0	0	473

# SAMMAT ENGINEERING SERVICES, LLC

PO BOX 780  
MT AIRY, MD 21771  
sammatteng.com

## 300 BLOCK OF VAN BUREN STREET, NW - SPEED

EB

Start Time	10	15	20	25	30	35	40	45	50	55	60	65	70	9999	Total
09/23/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	1	0	0	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	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
06:00	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
07:00	5	11	5	0	0	0	0	0	0	0	0	0	0	0	21
08:00	6	28	10	0	0	0	0	0	0	0	0	0	0	0	44
09:00	11	8	0	0	0	0	0	0	0	0	0	0	0	0	19
10:00	5	15	1	0	0	0	0	0	0	0	0	0	0	0	21
11:00	11	11	0	0	0	0	0	0	0	0	0	0	0	0	22
12 PM	5	13	3	0	0	0	0	0	0	0	0	0	0	0	21
13:00	12	10	3	0	0	0	0	0	0	0	0	0	0	0	25
14:00	14	8	4	0	0	0	0	0	0	0	0	0	0	0	26
15:00	20	17	4	0	0	0	0	0	0	0	0	0	0	0	41
16:00	38	0	0	0	0	0	0	0	0	0	0	0	0	0	38
17:00	50	0	0	0	0	0	0	0	0	0	0	0	0	0	50
18:00	31	14	0	0	0	0	0	0	0	0	0	0	0	0	45
19:00	15	14	0	0	0	0	0	0	0	0	0	0	0	0	29
20:00	4	10	2	0	0	0	0	0	0	0	0	0	0	0	16
21:00	6	6	0	0	0	0	0	0	0	0	0	0	0	0	12
22:00	0	7	3	0	0	0	0	0	0	0	0	0	0	0	10
23:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	235	184	36	1	0	0	0	0	0	0	0	0	0	0	456
Grand Total	593	665	120	3	1	0	0	0	0	0	0	0	0	0	1382

15th Percentile : 3 MPH  
 50th Percentile : 10 MPH  
 85th Percentile : 14 MPH  
 95th Percentile : 17 MPH

Stats  
 Mean Speed(Average) : 10 MPH  
 10 MPH Pace Speed : 6-15 MPH  
 Number in Pace : 962  
 Percent in Pace : 69.6%  
 Number of Vehicles > 20 MPH : 4  
 Percent of Vehicles > 20 MPH : 0.3%